

November  
2020

# Accelerate Learning K-2 Program Summary

## Section 1. Texas Essential Knowledge and Skills (TEKS) and English Language Proficiency Standards (ELPS) Alignment

Grade	TEKS Student %	TEKS Teacher %	ELPS Student %	ELPS Teacher %
Kindergarten	100%	100%	N/A	100%
Grade 1	100%	100%	N/A	100%
Grade 2	100%	100%	N/A	100%

## Section 2. Concept Development and Rigor

- Materials concentrate on the development of the primary focal areas outlined in the TEKS.
- Concepts sequence from concrete to representational to abstract (CRA), and materials provide support to teachers in understanding and developing students' progression along the CRA continuum.
- Materials support coherence and connections between and within content at the grade-level and across grade levels; resources build vertical content knowledge by accessing prior knowledge and understanding of concept progression.
- Tasks are of high-quality and engage students in the appropriate level of rigor and complexity as identified in the TEKS.
- Students have opportunities to apply mathematical knowledge and skills to solve problems in new contexts, including those arising in everyday life and society.

## Section 3. Integration of Process Skills

- Materials develop students' abilities to use and apply a problem-solving model that is transferable across problem types and grounded in the TEKS.
- Students have opportunities to develop their self efficacy and mathematical identity by sharing strategies and approaches to tasks and selecting appropriate tools for the work, concept development, and grade (e.g., calculator, graphing program, virtual tools).
- Materials prompt students to effectively communicate and justify mathematical ideas, reasoning, and their implications in multiple representations.

#### **Section 4. Progress Monitoring**

- Materials include developmentally appropriate diagnostic tools and guidance for teachers and students to monitor progress.
- Guidance is provided for teachers and administrators to analyze and respond to data for planning further instruction.
- Materials include frequent, integrated formative assessment opportunities and routine progress monitoring opportunities.

#### **Section 5. Supports for All Learners**

- Materials include guidance, scaffolds, supports, and extensions that maximize student learning potential; targeted instruction and activities are provided for students who struggle with content mastery.
- Instructional methods appeal to a variety of learning interests and needs.
- Materials include some supports for English Learners (ELs); however, strategies are general and not provided for varying levels of English language proficiency.

#### **Section 6. Implementation**

- Materials include a cohesive, year-long plan with practice and review opportunities that support instruction.
- Materials are designed in a way that allows Local Education Agencies the ability to incorporate the curriculum into district, campus, and teacher design and considerations. Guidance for implementation is provided that ensures the sequence of content is taught in an order that is consistent with developmental progression of mathematical concepts and skills.
- The visual design of student and teacher materials is neither distracting nor chaotic.

#### **Section 7. Additional Information**

- The publisher submitted the technology, cost, and professional learning support worksheets.

November  
2020

# Accelerate Learning Grade 1

**2.1** Materials concentrate on the development of the primary focal area(s) for the grade-level.

- Materials spend the majority of concept development of the primary focal areas for the grade-level as outlined in the TEKS.
- Materials strategically and systematically develop students' content knowledge as appropriate for the concept and grade-level as outlined in the TEKS.
- Materials provide practice opportunities for students to master the content.

## Meets 4/4

The materials include resources that focus the majority of concept development on the primary focal areas for the first-grade TEKS. Ten of the fifteen scopes focus on concept development in place value, solving problems with addition and subtraction, identifying and creating 2D shapes and 3D solids, and principles of length measurement; these are the focal areas for first grade. The materials provide authentic practice opportunities for students to master the content in a varied range of settings. The instructional material utilizes problem-based tasks to bring learning to new settings; students apply the learning in real-life scenarios. The materials allow students to practice skills in primary focal areas in multiple settings, such as whole-group instruction, games, interactive activities, stations, and small-group instruction. The content increases in rigor across the course of the school year. When scopes focus on concepts and skills that are not considered primary focus areas, they include spiral review, math stories, and problem-based tasks to incorporate the focal areas into spiraled practice and review.

Evidence includes but is not limited to:

The materials devote a majority of lessons to the focal areas, as outlined in the TEKS. The scopes are clustered by TEKS alignment; within each scope, a homepage outlines the TEKS and student expectations based on what students learned in the previous grade level and what they will learn in the future. Ten out of fifteen scopes have the primary focus of place value, solving problems with addition and subtraction, identifying and creating two-dimensional shapes and three-dimensional solids, and principles of length measurement. The key focal points are directly spiraled in the following scope for additional review.

The “Scope Overview” and the “TEKS Unwrapped” sections provide the teacher with the focal concepts that will be taught. The “Content Support” section clearly states the alignment with the TEKS, the assumed background knowledge (what was previously taught in kindergarten), and the key vocabulary words (with definitions). Materials provide “Picture Vocabulary” cards for use in the classroom and as a visual for students to reference. The program also includes a daily numeracy component and a fact fluency component. Teachers use these components in their daily whole group and small group lesson plans for the span of the entire school year. Fact fluency is spiraled throughout the scopes; the daily fact fluency component has its own scope and sequence. Each fact fluency unit has a mini-lesson, station ideas, games, and assessments. Students engage in a four-part process to learn the techniques that align with fluency. This process includes introducing, reinforcing, practicing, and applying. Activities spiral practice with whole numbers and addition and subtraction. The “Elaborate” (“Fact Builder”) section provides multiple opportunities and games for fact fluency to promote mastery of facts. Fact fluency and daily numeracy are two components that spiral multiple focal areas in first grade throughout the entire school year.

The materials, specifically the “New Teacher Navigation Guide,” provide the philosophy behind the publisher’s approach to systematically develop students’ mathematical learning. The materials discuss the constructivist approach to mathematical instruction, meaning that students follow the “concrete, representational, abstract” (CRA) process while acquiring knowledge and skills. The materials state that they provide “an interactive curriculum that encourages your students to rely on critical thinking, compelling reflection, and collaborative exploration within each scope.” The scopes also provide opportunities for students to engage in intentional discourse to broaden student mindset and encourage educational growth.

In the “Teacher Toolbox,” there is a document stating the mathematics instructional philosophy. The philosophy document references research that has been conducted and discusses how the research influenced the elements of the materials. For example, cited research states that there is a disconnect between performing procedural skills and knowing when to use them in everyday situations. Due to this research, the materials have rooted student learning in real-world scenarios. Within every scope, the “Hook” activity, the “Explore” activities, and the “Problem-Based Tasks” all incorporate real-world learning. Additionally, “Math Today!” acceleration activities include authentic news media from the *Associated Press* that prompt students to connect mathematics to events occurring in the real world.

The materials use a “5E+IA” learning model to enhance problem-solving and STEM-based thinking through real-world exploration. The components of the 5E+IA model are “Engage, Explore, Explain, Elaborate, and Evaluate” plus “Intervention and Acceleration.” Every scope within the materials follows this model, and all components are designed to incorporate real-world problem-solving. At the beginning of each scope, there is a scope overview. The overview provides teachers with a list of TEKS taught in the unit and how to incorporate the 5E model throughout the entirety of the scope. Within the first-grade scope list, teachers find the TEKS covered within the scope, how many lesson plans are in the scope, and the suggested pacing. The pacing in the “Scope and Sequence” allows students to systematically develop content

knowledge and build on knowledge learned in previous units. The “TEKS Unwrapped” section clearly states the TEKS, with individual breakdown and verbs, to note what the students will be doing. The section discusses how background knowledge applies to the current scope, the TEKS and skills necessary for students to show mastery of the scope, and the content-specific vocabulary to introduce during whole group lessons.

The Content Support section also provides teachers with an overview of the upcoming scope, the TEKS covered, and what students need to know to show mastery. It provides information about background knowledge (what was taught in the prior grade) and student misconceptions. A comprehensive graphic organizer shows the correlation of each of the 5Es as they relate to the standards. This gives the teacher an at-a-glance understanding of the depth and concepts that will be taught during the scope. Arrows in the graphic organizer show the cycle and relationship of the 5Es. Sample questions model what students should be able to answer by the end of the scope to demonstrate mastery. For example, in the “Fractions” scope, Content Support explains what students learned about 2D shapes in kindergarten as well as the misconceptions first graders may have before learning fractions. This section explains that by the end of this scope, students will be able to partition shapes into halves and fourths and identify examples and non-examples of halves and fourths. In the “Coming Attractions” section, the program explains how students will build on their knowledge of fractions in second through fifth grade.

Materials systematically develop content knowledge. For example, in the “Data and Analysis” strand, students use their learning to create graphs and answer questions about their findings. Students use language about the fundamental properties learned in prior scopes to show and explain their answers. Fact fluency games spiral learned facts and continue the engagement into mastery. Students use the “TALK” method when completing graphs and analyzing data. The progression of the instructional materials follows a pattern that builds upon prior scopes.

The materials provide various opportunities for students to practice and master content and skills in different modalities and contexts. Each scope has a variety of whole group lessons, practice problems, games, digital games, station options, and small group intervention activities. Each lesson plan includes step-by-step instructions and materials for teachers to implement the activity in the classroom. The “Lesson Planner” tool in the Teacher Toolbox provides a general outline of station suggestions and how to pace stations over the course of the week under the “Explain” and “Elaborate” sections of each scope. Rooted in real-world connections, each component of the 5E+IA model provides students the opportunity to practice the concept of the scope in various ways and use the “concrete, representational, abstract” progression. For example, students use an array of manipulatives to reinforce their knowledge in addition and subtraction within 20. Materials also suggest manipulatives as a tool for students to build shapes and show what they know. Materials students use to reinforce their ability to create shapes include reusable items, such as geoboards, and consumables, such as shaving cream, chenille stems, and Bingo daubers.

The progression of the instructional materials follows a pattern that builds upon prior scopes. Synthesization is encouraged several times when students are asked to create and compose shapes with interactive tools. Within the “Addition and Subtraction Strategies” scope, materials formulate fundamental student questions to encourage the evaluation and synthesis of various shapes. Thought-provoking fundamental questions in the addition scopes encourage depth and rigor. The materials guide teachers to ask students questions that cannot be answered with surface-level understanding, such as “How can you group or regroup these numbers to solve this problem?” and “Can you find the value of the unknown in the following equation?” These types of questions push students to think outside of the box as they apply their knowledge.

Each unit begins with an anticipatory set, which is referred to as an “Engage” activity. Within the lesson and throughout the scope, lessons progressively build towards greater sophistication and variety in problem-solving. For example, in the unit on classifying 2D shapes, there is a progression from sorting shapes to identifying and classifying shapes to engaging in a math chat about the attributes of 2D shapes and their relationships. In the “Personal Financial Literacy” scope, within the Problem-Based Task portion, an activity has students make life connections to highlight ways to make income and choose how to use their income. Problem-based tasks appear in all the units throughout the instructional material.

The materials use a Scope and Sequence that builds upon previously taught concepts; students continue to practice previously learned skills while applying them to new concepts. For example, first-grade students begin the year with adding and subtracting within 10 to review skills learned in kindergarten. Students learn new strategies, such as making 10, to help them add and subtract. Then, students progress to adding and subtracting to 20. Once students have mastered the concept of basic addition and subtraction, materials introduce the concepts of addition and subtraction strategies and addition and subtraction problem-solving. Students apply all of their strategies in a scope focused on addition-and-subtraction problem-solving. Students begin by gaining a solid foundation in adding and subtracting within 20 and then move on to use this knowledge to problem solve independently.

November  
2020

# Accelerate Learning Grade 1

**2.2** Materials sequence concepts from concrete to representational to abstract (CRA) as is appropriate for the grade-level and content.

- Materials include a variety of types of concrete models and manipulatives, pictorial representations, and abstract representations, as appropriate for the content and grade level.
- Materials support teachers in understanding and appropriately developing students' progression along the CRA continuum.

## Meets 4/4

The materials sequence concepts from concrete to representational to abstract (CRA) within the school year and within each scope. The materials include a variety of opportunities for students to use CRA materials while learning specific concepts. The “Content Support” section provides teachers with guidance on prior knowledge from previous grade levels; there are different activity ideas based on the CRA model to teach new skills. Rationale is provided for the materials used in the program, as well as suggestions for supporting students as they progress through the CRA continuum. The materials used in the CRA model increase in rigor over the course of the school year. Each lesson plan states whether students will be using manipulatives, pictorial representations, or abstract representations. The plans also provide teachers with facilitation points on how to teach each skill and give instructional support for students struggling to move across the CRA continuum. Both the use of materials and the information written for teacher support within the instructional materials show a clear progression through the CRA continuum.

Evidence includes but is not limited to:

The materials include a variety of concrete models and manipulatives, pictorial representations, and abstract representations to introduce and practice mathematical concepts. Each “Explore” activity follows one of the components in the CRA approach. In the first few Explores of a scope, students use concrete materials to learn the new skill. Then, students begin drawing pictorial representations. By the final Explore activity, students are working to represent their models with symbols and algorithms.

All of the scopes use models, manipulatives, and representations, including the units containing primary focal areas for first grade. In the first grade, students continue to use manipulatives that were consistently used in the prior grade level, such as counters and buttons. The intended use is the same, keeping with the progression of larger numbers. The materials used in lessons change with the content taught in each scope as they increase in rigor over the course of the school year. For example, students learn to group numbers to skip count by 2s, 5s, and 10s using linking cubes in the “Compose and Decompose Numbers to 120” scope. Later in the year, students apply this knowledge to skip count groups of coins. Examples of concrete models and manipulatives include but are not limited to “Picture Cards” specific to a scope, coins, ten-rods, unit cubes, and place-value mats. Examples of pictorial models include using pictures to represent numbers to 120, drawing groups of coins, and drawing the hands on a clock to represent time to the hour and half hour. Abstract representations include writing a number sentence to represent adding or subtracting and using symbols to compare numbers.

The curriculum contains a variety of concrete models and manipulatives, pictorial representations, and abstract representations. For example, in the scope on addition and subtraction strategies, students have access to various concrete manipulatives, such as linking cubes, counters, rekenreks, double-ten-frame mats, pan balances, centimeter cubes, and two-color counters. In the Explore 4 activity of this scope, students understand what the equal sign represents by balancing equations using addition and subtraction. During the activity, students use a pan balance and centimeter cubes to ensure that the pan balance is equally balanced. Students use centimeter cubes to represent the numbers in the equations and note how specific numbers cause the balance to be equal, making the two number sentences equal. Before students engage in this activity, they learn how to use a pan balance in a “Skill Basics” lesson called “How to Use a Pan Balance and/or Number Balance.” The lesson teaches students how to use the materials appropriately to promote mathematical thinking. As the scope progresses, students move to representational models of balanced equations: They draw pictures of objects and determine if the equations are balanced. In a problem-based task, students use equations to balance see-saws; students use models of dots, numbers, or pictures to represent the equations. In the skills quiz at the end of the scope, students use the abstract approach in using numbers to balance and solve equations. This scope also provides virtual manipulatives, such as linking cubes and rekenreks; each virtual manipulative comes with a tutorial video with directions on how to use it.

The materials support teachers in identifying where student understanding is along the phases of the CRA continuum. Materials also provide guidance and instructional suggestions to help students move through the phases of the CRA continuum.

Each scope contains “Content Support” for teachers on the homepage of the scope. This section, which is in each unit, guides teachers in the use and progression of the materials; it also gives a step-by-step explanation of the CRA model. For example, in the “Add and Subtract within 20” scope, Content Support first elaborates on using concrete models to add and subtract. Materials provide teachers with graphics and suggested question stems. The Content Support section also gives teachers information on background knowledge, misconceptions,



and obstacles students may have. It explains what students learned in previous grade levels and how their background knowledge applies to the current scope. Within these sections, teachers receive suggestions and guidance on supporting students through the CRA continuum. For example, in the scope focused on adding and subtracting within 20, the materials explain that students will have previously worked on this concept with numbers up to 5 in pre-kindergarten using concrete objects, creating pictorial models, sharing verbal word problems, and subtracting up to 5 from a set. In kindergarten, students model the action of joining and separating, explain strategies used to solve problems with spoken words, and use concrete, pictorial, and number sentences to represent joining and subtracting. The support document explains that students will continue this work while adding and subtracting numbers to 20 using spoken words, objects, pictorial models, and number sentences. The material also states that students extend their understanding through the use of more formal algorithms represented by symbols and describe the relationship between the manipulatives they use and the number sentence they represent. As students are exposed to more difficult concepts of addition and subtraction, such as change, difference, part, whole, or start unknown, the materials recommend starting with concrete representations and moving to pictorial and abstract representations.

Within the scopes, the materials provide opportunities for the teacher to assess where students are in the CRA continuum. For example, in the scope focused on three-dimensional solids, the “Accessing Prior Knowledge” activity asks students to sort physical shapes by their names. This allows the teacher to determine which students are in the concrete phase and which students are ready to move to the representational phase. In an Explore activity focusing on identifying 3D solids in the real world, students go on an excursion around the school building looking for 3D shapes and writing their names in the appropriate column. Then, students are presented with four pictures of 3D shapes and determine which shape does not belong. This activity also helps teachers assess where students are in the CRA continuum. The materials provide suggestions to support teachers; for example, teachers can bring 3D shapes along on the walk so that students who cannot make the connection between real-world objects and the shapes they represent can compare concrete shapes to the real-world objects. In the “Show What You Know” component, the materials recommend providing manipulatives to students as needed and using the manipulatives used in the corresponding Explore activity.

Each Explore activity provides teachers with details about procedures and facilitation points as a guide to help support students as they work through the CRA model. Teachers can read the description of the lesson to determine which part of the CRA model the students are covering. The materials also include Skill Basics lesson plans that give students a necessary foundation in skills before they progress through the CRA model. For example, in the “Addition and Subtraction Problem Solving” scope, materials explicitly teach students how to use a number line and strip diagram to assist them with adding and subtracting in a Skill Basic activity. In Explore 1, students have the option of using manipulatives, pictorial models, number lines, or strip diagrams to help them solve word problems. The “Instructional Support” section states that it is a goal for students to remove the use of manipulatives by the end of the activity.

However, if students are still struggling, students can continue to use concrete objects to represent the problem.

November  
2020

# Accelerate Learning Grade 1

**2.3** Materials support coherence and connections between and within content at the grade-level and across grade levels.

- Materials include supports for students to build their vertical content knowledge by accessing prior knowledge and understanding of concept progression.
- Materials include tasks and problems that intentionally connect two or more concepts as appropriate for the grade-level.
- Materials provide opportunities for students to explore relationships and patterns within and across concepts.
- Materials support teachers in understanding the horizontal and vertical alignment guiding the development of concepts.

## Meets 4/4

The materials include supports for students to build their vertical content knowledge by providing prior-knowledge activities and foundation builders for students who have gaps in their prior knowledge. Materials also provide supports for teachers to understand the prior knowledge students should have, as well as how the concepts will be applied and further integrated in future grade levels. The materials also include tasks and problems that connect multiple concepts as appropriate for the grade level. The materials provide opportunities for students to engage in math talk and discover math as they explore relationships and patterns within and across concepts. The materials are organized in a way that provides students opportunities to examine relationships and patterns within and across different concepts. Some activities require students to interconnect different mathematical ideas to problem solve. The program provides teachers with a scope overview, “Scope and Sequence,” and vertical alignment to denote which TEKS are introduced in that grade level and how they progress in future grade levels. The “Content Support” and “TEKS Unwrapped” sections at the beginning of each scope provide teachers with a deeper understanding of students’ background knowledge, expectations for the current grade level, and how the concept develops in future grade levels.

Evidence includes but is not limited to:

The materials contain tasks that measure students’ prior knowledge and direct teachers on building from the knowledge that students have. These tasks are at the beginning of every scope and occur before materials present a new concept or idea. At the start of the “Add and

Subtract Within 20” scope, teachers receive a pre-assessment activity to assess students’ prior knowledge. The materials suggest that if students are struggling, teachers should proceed to the “Foundation Builder” activities before moving to the other portions of the scope. The Foundation Builder provides a two-part pre-assessment from a previously-taught TEKS within first grade. In addition, materials provide information to assist in correcting preconceptions. In the “Explore” section, students perform tasks in a logical progression; they first work on joining and separating the result unknown, and then work with the change unknown. Under the Explore portion of each scope, there is a portion titled “Skill Basics.” This Skill Basics portion of each scope is designed to provide students with familiar skills and strategies. For example, in the “Compose and Decompose Numbers to 120” scope, there are Skill Basics tasks such as skip counting by 2s, 5s, and 10s and using a hundred chart, which are skills that are also presented in kindergarten.

Each scope also begins with an “Accessing Prior Knowledge” activity where students apply prior knowledge to a vertically-aligned standard. The activity either assesses students’ knowledge of skills taught in a previous grade level or skills taught in previous units. For example, in the Add and Subtract Within 20 scope, the Accessing Prior Knowledge activity assesses students’ knowledge on a standard taught in a previous unit. According to the lesson plan, the activity is intended to assess students’ knowledge of using objects and pictorial models to solve word problems that involve joining, separating, and comparing sets within 20. The activity requires students to work in small groups to solve addition and subtraction problems within 10, which was taught in a previous first-grade unit and in kindergarten. Students are given a set of counters, a story problem card, and a handout to complete the activity. Students work together to read the story problem, use counters to create a concrete model of the problem, and draw a picture to show how they solved the story problem.

The Content Support documents also include “Coming Attractions,” which denote how students will apply current content knowledge in future grades. For example, in the first-grade scope covering time, the Content Support documents state that in pre-kindergarten, students should have developed a general concept of time by learning language associated with the passage of time. Although kindergarten students do not specifically learn about time, students use their knowledge of counting forward and backward and the clock being a circle to assist in the introduction of time. In first grade, students focus on hour hands and minute hands and counting time to the nearest hour and half hour. The Content Support documents also state that in second grade, students will learn to read and write time to the nearest minute as well as distinguish between A.M. and P.M.; in third grade, students will solve problems involving addition and subtraction of time intervals; in fourth grade, students will use elapsed time to solve problems using all operations. As students progress through the materials, the program incorporates previously learned skills and applies them to new concepts. As the program progresses, scopes utilize familiar models and strategies from previous units and introduce new models and strategies that students apply to the new skill.

Students recognize and make connections among mathematical ideas. For example, in the first-grade scope related to comparing and ordering numbers to 120, students engage in an Explore

activity to generate a set of objects or pictures that is greater than or less than a given set of objects or pictures. In this activity, students are making connections between the concepts of more and less, place value, addition and subtraction, and using objects and pictures to represent numbers. In the scope focused on money, students engage in an Explore activity where they determine the value of a set of coins to decide which items they can purchase from the “StemScopes Store.” In the activity, students identify coins, sort the coins, order the coins from least to greatest, and determine the value of the coins using skip counting. This activity helps students connect the concepts of sorting, comparing numbers, skip counting, coin recognition, and addition and subtraction as they add the amount of money they have and use it to purchase items from the store.

The materials also include tasks that require students to recognize and apply math contexts outside of math. Within each first grade scope, three portions directly tie to the application of mathematics outside of context: “Math Story,” “Life Connections,” and “Math Today.” Math Stories support literacy and expand students’ ability to identify the information they need to solve math-related problems. The stories are interactive and prompt students to answer questions as the teacher reads. Life Connections activities are located in the “Elaborate” section in each scope. These activities introduce students to careers and real-life experiences that highlight the mathematical concepts being learned in class.

The materials provide opportunities for students to make connections within and across math concepts. For example, in the Compose and Decompose Numbers to 120 scope, students practice grouping objects to skip count by 2s, 5s, and 10s in a Skill Basics activity. The teacher uses 120 connecting cubes to model how to group the objects by 2s, 5s, and 10s; then, the class discusses when it makes sense to group items by 2s, 5s, or 10s. Later, in the “Money” scope, students use their knowledge of grouping items to skip count groups of coins. Students group like coins together and then decide how they will skip count each coin based on its value. In the scope related to addition and subtraction problem solving, students engage in an Explore activity where they represent and solve addition and subtraction problems using models and number sentences. In this activity, partners read a scenario card and determine how they will solve the problem using any strategy and manipulatives they choose. After students complete the task, they answer a series of questions, such as “What is your pictorial model showing?” “What action was happening in this story?” “What strategy did you use to solve?” and “Is there a different way you could solve this problem?” These questions help students understand how mathematical ideas interconnect and build on one another. To complete the activity, students use their knowledge of place value, addition and subtraction, using concrete and pictorial models to represent ideas, and writing number sentences. Students are also challenged to think of multiple ways to solve a problem, which incorporates problem-solving process standards.

Each scope has a “Spiraled Review” activity that reviews previous or current grade-level content based on the focal points for each grade level. For example, in the “Create and Compose Two-Dimensional Shapes” scope, students complete a review activity titled “The Field Trip.” The teacher first reads a story problem to set the stage for the activity. The questions review analyzing bar graphs, using a pictorial model to represent an addition problem, describing

attributes of 2D shapes, and identifying 2D shapes. The questions that review these skills are all related to the story problem for the review activity.

The materials include a grade-level scope list, a Scope and Sequence, and a vertical alignment chart. In the grade-level scope list, teachers can find what TEKS are covered in each scope. The Scope and Sequence shows teachers how to pace each scope over the course of a school year; it is organized by week and includes the scope name and which TEKS to introduce. The vertical alignment chart gives teachers an overview of how each standard progresses from kindergarten through third grade. Each scope has a Content Support section that teachers should read before introducing the scope to the students. This section explains which TEKS are covered in the upcoming scope, students' background knowledge, and Coming Attractions. Coming Attractions highlight how students will continue their growth and understanding of the concept in future grade levels. Each scope has a section titled "TEKS Unwrapped," where there is a dissected version of each TEKS in the scope and an explanation of the verbs and nouns found in the standards. This section also includes vertical alignment that explains how the skills taught in the current scope progress into upcoming grade levels.

November  
2020

# Accelerate Learning Grade 1

**2.4** Materials are built around quality tasks that address content at the appropriate level of rigor and complexity.

- Tasks are designed to engage students in the appropriate level of rigor (conceptual understanding, procedural fluency, or application) as identified in the TEKS and as appropriate for the development of the content and skill.
- Materials clearly outline for the teacher the mathematical concepts and goals behind each task.
- Materials integrate contextualized problems throughout, providing students the opportunity to apply math knowledge and skills to new and varied situations.
- Materials provide teacher guidance on anticipating student responses and strategies.
- Materials provide teacher guidance on preparing for and facilitating strong student discourse grounded in the quality tasks and concepts.

## Meets 4/4

The materials meet some of the guidance bullets; however, some of the guidance bullets are only partially met. The tasks are designed to engage students in the appropriate level of rigor as identified in the TEKS and as appropriate for the development of the content and skills. The materials clearly outline for the teacher the mathematical concepts and goals behind the tasks. Each lesson plan provides teachers with the objective for the lesson, procedure and facilitation steps, prompts to use during the lesson, and instructional support for students struggling to meet mastery. The "Content Support" section provides teachers with students' background knowledge, common misconceptions, and skills students need to demonstrate to meet mastery. The materials provide teachers with many prompts for questions to ask students and even possible student responses. In the STEMcoach in Action component, administrators and teachers are provided with professional development to guide teachers on how to begin the facilitation of quality classroom discourse. The "Building Scientific and Mathematical Understanding," "Facilitating Questioning and Discourse," and FAQ sections in the STEMcoach can be used to determine what the students, teachers, and administrators should both do and see in the classroom.

Evidence includes but is not limited to:

The materials engage students in rigorous tasks that are aligned to the TEKS and are developmentally appropriate for the grade-level content and skills. The scope related to addition and subtraction problem solving provides detailed information on how students move from the concrete to the abstract in the scope. For example, students begin the lesson by using counters on a number line. They then progress to using number bonds and strip diagrams to solve. Once they master this, students apply their knowledge in various problems, including those with the result, the change, or the start unknown. This level of rigor builds upon the foundational skills taught in kindergarten.

The design of the instructional material begins with an “Engage” activity to hook students; materials guide the teacher in asking thought-provoking questions. As the lessons advance toward the Explore portions, there is a higher level of questioning and rigor. The rigor level in tasks increases both throughout a given scope and across scopes over the course of the year. Within one scope, students begin to learn the concept through the use of concrete materials. In earlier lessons, students are given opportunities to record their understanding by drawing a picture of the concrete model they created during the teacher-facilitated lesson. Each “Explore” lesson has an “Exit Ticket,” where students use pictorial or abstract models to demonstrate their learning. By the end of the scope, students begin to demonstrate their understanding with abstract models.

Materials clearly outline the mathematical concepts and goals behind each task for the teacher. The materials include explanations of the mathematical concepts and goals behind each scope and serve to build teacher content knowledge. Each scope includes a Content Support document to explain the TEKS that will be covered in the scope, background knowledge that students will be coming with, misconceptions and obstacles that students may have during the scope, terms to know in the scope, specificity in content that students will gain throughout the scope, and how the information learned in the current grade level will be reinforced and elaborated on in future grade levels. Each scope also includes a document titled “TEKS Unwrapped,” which dissects the standards, the key verbs and nouns within the standards, and the vertical alignment with the grade below and above. Additionally, each scope’s “Home” page lays out the student expectations for the entire scope for teachers to review. Below that, there are key concepts in the form of “I can” statements; these can be used as objectives for the teacher throughout the scope. Finally, materials present the fundamental questions for the scope; this guides conversations between teachers and students and provides recommendations of what the students should be able to answer at the end of the scope.

The Content Support for each scope provides an overview of how skills and content are introduced and how to take students through the process to mastery and through the CRA process. For example, in the scope focused on adding and subtracting within 20, the support explains that students will build on their understanding of joining and separating as they solve real-world problems, and they will use and explain the strategies used to solve problems; strategies include spoken words, objects, pictorial models, and number sentences. Students also extend their understanding of joining and separating objects into more formal algorithms



represented by symbols. Students describe the relationship between their manipulatives and the number sentence.

The materials integrate contextualized problems throughout, providing students the opportunity to apply math knowledge and skills to new and varied situations. Each Explore lesson has a scenario that is familiar to most students. For example, in Explore 1 of the “Personal Financial Literacy” scope, students learn about income and identify income as a way to obtain goods and services. The teacher reads a scenario about a person who worked at a pool as a lifeguard. This was the person’s first job where they earned money to buy things. The scenario explains that some children earn money by doing chores or jobs around their house or neighborhood. When you are an adult, you earn money to support yourself and your family. With a partner, students complete a handout where they identify examples of earning income, list jobs where they can earn income, and draw a picture of what they might want to do to earn income when they grow up. The class discusses examples and non-examples of earning income and ways to spend income on wants and needs. “Math Today” activities are located in the “Acceleration” section. In these activities, students explore real-world connections and applications of math content through media provided by the *Associated Press*.

The materials provide support to teachers on lesson modifications with relevant context for students who are English Learners. Within the Explore activities, materials provide modeling and sentence stems for teachers to support students as they work to respond. The materials also provide a parent letter to be sent home at the beginning of each scope, which provides information on the concepts being learned in class as well as a choice board of activities so families can practice the concepts at home.

Materials provide teacher guidance on anticipating student responses and strategies. Throughout the instructional materials, each lesson has embedded sample guiding questions, with sample student answers written in red. There is also teacher guidance on anticipating student responses and strategies as they practice questions and tasks. Within every “Accessing Prior Knowledge,” “Foundation Builder,” “Hook,” and Explore activity, the materials provide possible student responses next to the questions that teachers can ask. Materials also provide discussion questions with sample student responses in the “Math Chat” section. These predetermined questions allow for higher-level discussions and thinking to take place. Each Explore lesson introduces students to a new strategy that can be used to answer questions and tasks. The strategies introduced in the lesson plans are appropriate for the grade level and task students are expected to complete. By the end of the scope, students have learned multiple strategies they can use to problem solve. Students use different strategies they have learned throughout the scope on a “Skills Quiz” at the end of the scope.

The Content Support section of each scope contains portions titled “Misconceptions and Obstacles.” This section outlines common misconceptions and areas that students may struggle with as they progress through the unit. An example of this is in the “Data Analysis” scope. The Misconceptions and Obstacles section provides a total of six bulleted ideas, which include misconceptions such as “Students may think T-charts can only have two categories,” and

obstacles such as “Students may struggle with reading and writing tally marks.” The materials sequence anticipated strategies in order of strategy sophistication so that teachers know how to push students from one strategy to the next. The Explore lessons begin with students learning new concepts with concrete materials. In these early stages, students can also use pictorial models by illustrating the concrete model they used to solve the problem. As students progress, they begin to move toward using only pictorial models and representing their answers in an abstract way. These progressions are demonstrated in each scope through the progression of each Explore activity.

The materials partially provide teacher guidance in preparing and facilitating strong student discourse grounded in the quality tasks and concepts. Each activity has an outlined facilitation piece that has step-by-step instructions as well as questions that teachers should ask. The Home page of each scope lists the overarching fundamental questions for that scope. The Explore activities provide possible student responses to teacher questions as well as questions that can be asked after the students have responded. Small group intervention is available to break down the concepts when students misunderstand a concept. Also, after the teacher completes the Observation Checklist, the teacher is guided on how to direct students when there is a misunderstanding.

The provided “Teacher Toolkit” contains a section titled “Communicate Math,” which provides information on the importance of discourse within the math classroom and expectations for the K-2 classroom. Some of these expectations include modeling discourse interactions for students to have a clear understanding of what discourse is and what it sounds like; providing sentence stems to help scaffold language; including a variety of approaches to convey knowledge, strategies, justifications, and conclusions; allowing adequate wait time after asking a question or hearing a response; and ensuring each student contributes to the discussion with clear and organized thoughts and ideas. The “Daily Numeracy” component of the program encourages students to participate in a daily math talk. Daily Numeracy is a 15-minute class meeting where students share connections and mental strategies used to solve problems. The program provides slides with numeracy activities that reinforce skills such as counting, patterns, and guess-the-number. Teachers choose a topic they want to discuss with the class, show the slide, and use guiding questions to facilitate the discussion. The program provides teachers with how this should look in the classroom, examples of guiding questions, and how students should respond to the questions.

November  
2020

# Accelerate Learning Grade 1

**2.5** Materials include cohesive, year-long plan for students to develop fluency in an integrated way.

- Materials include teacher guidance and support for conducting fluency practice as appropriate for the concept development and grade.
- Materials include a year-long plan for building fluency as appropriate for the concept development and grade.
- Materials integrate fluency at appropriate times and with purpose as students progress in conceptual understanding.
- Materials include scaffolds and supports for teachers to differentiate fluency development for all learners.

## Meets 4/4

The materials include guidance for teachers on the structure and design of the “Fact Fluency” scope. The materials include a cohesive, year-long plan for students to develop fluency in an integrated way. There is a year-long plan for students to develop fluency; however, the fluency activities are completed in isolation as opposed to being integrated into the lessons. Fact Fluency is its own scope that can be used in daily instruction at the teacher’s discretion. The content in the Fact Fluency scope is sequenced in a way that students are able to make connections across and between strategies. The components of the Fact Fluency scope give students opportunities to practice the skill in multiple ways. Students are assessed at the end of the scope using an online assessment.

Although there are several fluency activities provided for each scope, there is no evidence of differentiation or guidance for teachers on how to evaluate or track student progress. The Fact Fluency scope is the same in grades K-2. This includes mini-lessons, stations, games, and assessments. Materials do not build upon the skills in each grade level; instead, skills are retaught using the same materials. There is no evidence of grade-level fluency expectations, tools to monitor students’ fluency, or interventions/extensions for students who are struggling or who have mastered the fluency activities.

Evidence includes but is not limited to:

The materials include teacher guidance and support for conducting fluency as appropriate for the concept development and grade. Within the Fact Fluency scope, each set of facts includes a mini-lesson, fact fluency stations, fact fluency games, and an assessment related to the facts that are being addressed. The scope develops student automaticity with basic addition and subtraction facts by building on their conceptual understanding of addition and subtraction. The first-grade scope list suggests that this component be paced from October through May. The scope and sequence does not provide a concise timeline of when new fact fluency skills should be introduced. Teachers can use the “Lesson Plan Guide,” located in the “Teacher Toolbox” as an aid to pace the Fact Fluency component. According to the Lesson Plan Guide, teachers choose between Fact Fluency or “Daily Numeracy” for the beginning of each lesson. Teachers should use one of the Fact Fluency stations or games during center rotations to reinforce skills that were taught in Fact Fluency mini-lessons. When students are participating in fact fluency stations, materials prompt them with directions and sentence stems to use in order to discuss their fact fluency knowledge. For example, in the fact fluency station covering sums within 5, students use sentence stems such as “I need the card that represents the sum of...”; “Who has the numeral that is the sum of...and...?” and “Who has the card that represents the sum of...?”

The instructional materials provide support and clear directions for when and how to conduct fluency activities. The “Scope Overview” of each scope states that the fluency component should be taught in the “Elaborate” portion of the lesson. The Scope Overview is an embedded diagram on the home page of each unit. Within the lesson, there is a “Fluency Builder” component that has games with step-by-step directions to conduct the fluency activity. Materials do not provide strategic discourse opportunities in the “Fluency Builder” activities embedded within each scope. However, there is a separate unit within the materials that is titled “Fact Fluency: Addition and Subtraction”; within it, a mini-lesson activity provides opportunities for discourse.

The materials partially include a year-long plan for building fluency as appropriate for the concept development and grade. According to the scope list, the Fact Fluency component should be implemented from October through May. However, there is no evidence of a scope and sequence for teachers to follow for pacing the Fact Fluency component across the entire school year. Within this scope, the materials state that in order for students to be successful as they progress into upper grades, they need to have a solid understanding of the concepts of addition and subtraction. Students need to be fluent in the thinking strategies necessary for solving such facts. The materials follow a four-part process to ensure students get the most out of their time with fact fluency. The first step is introducing the strategy with discussion and hands-on manipulation. The second step is reinforcing the strategy with discussion and visual models. The third step is practicing the strategy with discussion and games. The final step is to apply the strategy with discussion, games, and everyday applications.

Additionally, teach the facts in a sequential order to ensure that students make connections across and between the strategies. The suggested sequence includes sums within 5; plus 0, 1, 2; minus 0, 1, 2; doubles; making tens; plus/minus ten; using ten; using doubles; sums within 20;

and differences within 20. In addition to the Fact Fluency scope, the materials include Fluency Builder games that reinforce the skills taught in each scope. However, these fluency games are not part of a year-long plan for building fluency. They are activities and games used to build fluency within each scope and are intended for use during math stations.

Within the Teacher Toolbox, materials provide “Lesson Planning Guides” for each grade level. Every lesson planning guide includes a period of time, at the beginning of the math block, for fact fluency and daily numeracy. This is intended to be conducted as a whole group. The guide also includes a fact fluency station for students to practice their fluency skills with other students in a small group or with partners. Although the materials provide a year-long plan for building fluency, there is no evidence of how to introduce or explain the fluency activities. In addition, although there are recording sheets tied to each fluency activity, there is no evidence of a document to track students’ fluency progress across the school year.

The materials partially include a year-long plan for building fluency as appropriate for the concept development and grade. Fluency Builder activities are specific to the content being taught in each scope. Every scope includes Fluency Builder games that are related to the scope to help students work towards fluency with the concept being learned. The Fact Fluency scope provides students with multiple stations and games to practice different strategies learned in the scope. Each scope contains virtual games designed to reinforce the skills established by the standards in each scope and build fluency. Students engage in a “Spiraled Review” during each scope, which reviews previous or current grade-level content based on focal points. These spiraled reviews also provide additional fluency practice for students. Within the Fact Fluency scope, students engage in the mini-lesson, fluency stations, and fluency games to practice their fluency skills as appropriate to the grade level and skill. During the mini-lesson component, students engage in a game-type activity that introduces the fact fluency skill they are working on. During the activity, students respond to questions related to strategies they used, share different ways to solve problems, and describe the actions they took. The materials also provide students with opportunities to efficiently and accurately solve grade-level tasks by applying their conceptual understanding of number relationships and strategies. Each scope has multiple “Show What You Know” activities where students apply the different strategies they have learned throughout the scope to demonstrate their learning. Although there is a scope and sequence listed in the addition/subtraction fact table, no other scopes and sequences are evident. The materials provide a year-long plan for building fluency, and they include recording sheets tied to each fluency activity, such as an observation checklist.

The materials partially integrate fluency at appropriate times and with purpose as students progress in conceptual understanding. Components of the Fact Fluency program can be integrated into different scopes; however, there is no scope and sequence for the Fact Fluency program. Therefore, teachers would have to use this at their own discretion. Fluency Builder activities specific to the content being taught in each scope integrate fluency activities within the development of conceptual understanding. Every scope includes fluency activities and games, used after the introduction of the skill and vocabulary. In the “Explore” and “Explain” portions of the scope, students have multiple opportunities to master the skill. The fluency

activities in the Elaborate tab provide opportunities for students to apply what they have learned and reinforce the skill in an interactive partner game.

The materials provide students with opportunities to efficiently and accurately solve grade-level tasks by applying their conceptual understanding of number relationships and strategies. Each scope has multiple “Show What You Know” activities where students apply the different strategies they have learned throughout the scope to demonstrate their learning. When completing tasks at the Explore level, students are encouraged to share their thinking and strategies used when completing the activities. Some prompting questions that students answer include “What strategies can you use to understand what is happening in the problem?” “Can you explain how you solved this?” “Is there a different way to solve this?” and “Is there a math tool that can be used to help solve this problem?”

The materials partially include scaffolds and supports for teachers to differentiate fluency development for all learners. The materials include assessments to assess students as they develop fluency skills in their mathematical understanding and reasoning. For example, at the beginning of every scope, materials provide an “Accessing Prior Knowledge” activity to determine where students are in their conceptual and fluency understanding. The Explore lessons are scaffolded in a way to increase fluency in each concept. Students begin by using manipulatives and pictorial models to explore new content. By the end of the scope, students move toward written strategies and algorithms. Teachers can use information gathered from the Explore activities to determine if students need differentiated supports for fluency activities. Instructional intervention provided for students struggling to meet mastery includes the small group intervention lessons. These lessons are to reteach skills introduced in the Explore lessons, not to support students’ fluency skills. In the “Acceleration” tab for each scope, there are “Math Today” activities and a “Connection Station” activity. These activities are designed to take the concepts learned in the scope and extend student knowledge of the concept and fluency.

If students are struggling to meet the fluency expectations for the grade level, the materials provide supports for teachers to scaffold activities within the scopes that relate to fluency. For example, during Explore activities, instructional supports help teachers support students who may be struggling with particular components of the activity. An example of this can be found in the scope related to representing numbers at least to 20. In Explore, if students are struggling to generate sets of concrete objects, the materials recommend giving students counting strips or ten-frames to help organize their counts. Additionally, materials provide interventions within every scope in order to support students who are struggling to grasp concepts. During those intervention lessons, supplemental aids support students as they acquire fluency skills.

November  
2020

# Accelerate Learning Grade 1

**2.6** Materials support students in the development and use of mathematical language.

- Materials include embedded opportunities to develop and strengthen mathematical vocabulary.
- Materials include guidance for teachers on how to scaffold and support students' development and use of academic mathematical vocabulary in context.

## Meets 4/4

The materials include embedded opportunities to develop and strengthen students' mathematical vocabulary. The materials provide authentic opportunities for students to develop mathematical language. There are opportunities for students to listen, speak, read, and write using academic language. The instructional materials are designed so that the development of mathematical language is scaffolded and students are supported as they learn the new language. Students use their prior knowledge to apply vocabulary words within the "Foundation Builder" and "Hook" activities. There are embedded opportunities for students to develop and strengthen their mathematical vocabulary in "Explore" lessons, class discussions, and "My Math Thoughts" prompts. Materials provide tools and techniques such as vocabulary cards, sentence stems, modeling, and visual supports to assist teachers in encouraging academic talk with students in the Explore lessons and the Math Talk sections. Students apply their mathematical vocabulary in the "Show and Tell" assessments, where they complete performance tasks and explain their thinking. The materials include supports such as picture vocabulary and anchor charts to support the use of academic vocabulary. Explore lessons are scaffolded in a way that guides students from using informal vocabulary to using formal vocabulary.

Students engage in daily math chats to strengthen their vocabulary knowledge. They also practice vocabulary through games played with other students. Additionally, the materials include guidance for teachers on how to scaffold and support students' development and use of academic mathematical vocabulary in context. The "Content Support" document provides teachers with the terms to know in each scope. A parent letter informs parents about how vocabulary words can be applied in different contexts in the real world and at home.

Evidence includes but is not limited to:

The materials include embedded opportunities to develop and strengthen students' mathematical vocabulary. The learning goals, or key concepts as they are referred to within the instructional material, address the development of mathematical vocabulary. Within each scope, a homepage outlines both the key concepts of the scope and fundamental questions that can be used to increase the use of mathematical vocabulary. Teachers can also obtain more information about scope-specific vocabulary in the Content Support section. In each activity, throughout all scopes in the materials, there is a teacher instruction page that provides guiding questions for the application of the vocabulary. Within each scope, the "Accessing Prior Knowledge," Foundation Builder, and Hook activities often embed content-specific vocabulary into the questions and discussions to determine where students are in their vocabulary knowledge. Explore activities provide teachers with facilitation to attach academic vocabulary to the students' experiences. Each Explore activity includes discussion prompts for the teacher to use to help guide students in communicating their thoughts using academic language. Each Explore lesson also has ELPS strategies that support English Learners to acquire new vocabulary. Each scope has a picture vocabulary presentation for teachers to use as a support tool to represent new vocabulary with pictures and student-friendly definitions. Students engage in math chats with every Explore activity, and vocabulary acquisition is embedded within those classroom conversations. The My Math Thoughts sections provide students with the opportunity to complete sentence stems using academic vocabulary that is given in a word bank. The questions and word problems provided throughout the My Math Thoughts activity use precise mathematical vocabulary consistently and frequently. Students' knowledge of academic vocabulary is assessed in the Show and Tell assessments, where students must understand and use precise mathematical language as they respond to prompts.

The materials provide scaffolding suggestions to support students with the development and use of academic vocabulary in context. The design of the lesson follows the "5E + IA" design model; lessons start with "Engage" activities, which build on prior knowledge and develop an anticipatory set; lessons progress to Explore activities, where teachers use dialogue to introduce new vocabulary through hands-on learning and within the context of the mathematical concepts. This model is consistent throughout the instructional materials. The "Explain" portion of the 5E model dedicates several parts to the direct teaching of new academic vocabulary. In the "Anchor Charts" portion and the "Picture Vocabulary" portion, students have the ability to listen to new academic vocabulary in context with the new material.

The instructional materials include ELPS strategies, which include sentence stems for language development and the use of academic language. The sentence stems are consistently embedded in every Explore activity throughout the instructional materials. Following Explore activities, to scaffold the use of academic vocabulary, there are Math Chats. Teachers prepare sentence stems and place them in a visible spot for students to use during the chat. Within each scope, a Picture Vocabulary section is located under the Explain tab. This provides students with an academic math vocabulary word and a picture that represents the definition. The instructional materials provide the option for teachers to print picture vocabulary cards; they can be used on a math word wall. Teachers can also virtually assign the cards to students.



November  
2020

# Accelerate Learning Grade 1

**2.7** Materials provide opportunities for students to apply mathematical knowledge and skills to solve problems in new and varied contexts, including problems arising in everyday life, society, and the workplace.

- Materials include opportunities for students to integrate knowledge and skills together to successfully problem solve and use mathematics efficiently in real-world problems.
- Materials provide students opportunities to analyze data through real-world contexts.

## Meets 4/4

The materials provide multiple opportunities for students to apply mathematical knowledge and skills to solve problems in new and varied contexts. They provide opportunities for students to solve grade-appropriate real-world scenarios by applying their knowledge and skills. They also include opportunities for students to analyze and interpret graphs in real-world settings. Students have the opportunity to use mathematics efficiently in real-world problems through the “Engage” “Hook” activities, “Explore” activities, “Problem-Based Tasks,” “Life Connections” activities, the “Math Stories,” and “Spiraled Reviews.” Each Explore lesson is embedded with a new, real-world topic that is developmentally appropriate for grade-level students. The lessons require students to integrate knowledge from previous Explore lessons to problem solve. When students interact with the “Accelerate” activities, they are able to use their knowledge and skills and apply them to real-world scenarios that are related to cross-curricular content. The “Math Today” activity and the “Connection Station” activity also apply math to real-world events.

The materials include a variety of different activities that require students to solve math problems in real-world scenarios. In Problem-Based Tasks, students work collaboratively to apply the knowledge and skills learned in the current scope to solve open-ended, real-world challenges. Students have the opportunity to integrate knowledge and skills that have been previously learned within the current scope and in previous scopes in order to solve new problems. Within the “Data Analysis” scope, the materials provide students with opportunities to analyze data through real-world problems. Each activity that students engage in connects them to a real-world scenario in some context.

Evidence includes but is not limited to:

The materials include opportunities for students to integrate knowledge and skills to successfully problem solve and efficiently use mathematics in real-world problems. Within each component of the “5E+IA” model, students engage with real-world problems in multiple contexts. Each scope in the instructional materials begins with an “Accessing Prior Knowledge” activity and a “Foundation Builder” activity. These activities ask students to solve real-world problems based on prior knowledge from early childhood outcomes and kindergarten guidelines. Within the Engage component, students participate in a Hook activity that relates the new skill to a real-world concept. Within each scope, Explore activities require students to solve scenario-based story problems using concrete and representational methods. Each Explore lesson is embedded within a new real-world context that is developmentally appropriate for first-grade students. Each Explore lesson also has a different scenario that requires students to integrate knowledge from previous Explore activities to find a solution to the new problem.

Each scope uses the knowledge from the previous Explore in order to support students to solve the problems in the new Explore activity. As students progress through the Explore activities within each scope and through the scopes throughout the year, they must integrate knowledge and skills to make sense of specific contexts and solve problems. For example, in the scope related to composing and decomposing numbers to 120, students progress through five different Explore activities. Each scope uses the knowledge from the previous Explore in order to support students to solve the problems in the new Explore activity. Additionally, before students engage in the Explore activities, they complete a “Skill Basics” lesson to ensure they know how to group objects to skip count by 2s, 5s, and 10s and know different ways to write a number such as standard form, word form, expanded form, and picture models. Once students have completed this, they begin by counting and organizing collections of up to 99, and then take tens and ones and transfer that to standard form. Next, students practice relationships of 10 more and 10 less; then, they compose and decompose numbers in more than one way. They finish the Explore lessons by bridging these concepts to numbers beyond 99. These Explore activities integrate the knowledge and skills from the previous activities in order to support students as they move through their conceptual understanding of composing and decomposing numbers to 120. In addition to the Explore activities, the materials include a variety of activities that require students to use their skills to solve different real-world scenarios. In Problem-Based Tasks, students work collaboratively to apply the knowledge and skills they have learned in the current scope to an open-ended, real-world challenge. Math Today lessons provide real-world videos and images that relate to the scopes. “Parent Letters” in the scopes provide real-world opportunities for parents to complete activities with their child, such as using the tic-tac-toe boards.

The materials provide students with opportunities to analyze data through real-world contexts. These can be found within the Data Analysis scope for first grade. The scope builds on skills taught in kindergarten. In first grade, students interpret and analyze graphs just as in kindergarten, but they now draw conclusions and generate questions. Students engage in three different Explore activities related to analyzing data in real-world contexts. Life Connections activities also provide opportunities for students to analyze data from real-world contexts;

these are activities that introduce students to careers and everyday life experiences that highlight the math concepts taught in the scope. In the Data Analysis scope, students watch a video that highlights a scientist who analyzes data from space. After watching the video, the teacher facilitates a discussion with questions such as “How does an analyst use the data he/she is given to draw conclusions?” “Why is it important for the data to be shown and presented in an easy way?” and “How does a scientist use math when interpreting data?” After the discussion, students pretend to be a scientist from the video. An astronaut brought back data from space, and the students’ job is to organize the data and draw conclusions based on the data. When they are finished creating their graph, students write down one or two conclusions they drew from the graph to share with the class.

In this scope, students also participate in a Problem-Based Task where they help their team plan what food will be served for dinner at the school’s math night. First, students determine how they want to collect the data; then, they survey their classmates on their choice of food served. Afterward, students determine how they want to organize their data, such as in a tally chart or T-chart. Finally, students determine whether they want to display their data in a picture graph or a bar graph.

November  
2020

# Accelerate Learning Grade 1

**2.8** Materials are supported by research on how students develop mathematical understandings.

- Materials include cited research throughout the curriculum that supports the design of teacher and student resources.
- Materials provide research-based guidance for instruction that enriches educator understanding of mathematical concepts and the validity of the recommended approach.
- Cited research is current, academic, relevant to skill development in mathematics, and applicable to Texas-specific context and demographics.
- A bibliography is present.

## Meets 4/4

The materials include cited research in the curriculum that supports the design of the materials and the teacher and student resources. Materials are supported by current and relevant research on how students develop mathematical understandings. The research is cited and is linked to the publisher's design model and recommendations. The "Math Research and Philosophical Approach" document provides educators with an explanation of research used to design the program and where the research-based materials can be found within the program. The "Content Support" section provides teachers with research-based guidance for instruction that enriches their understanding of mathematical concepts. Cited research is current, academic, and relevant to skill development in mathematics. Teachers can find support for teaching the process standards in the "Teacher Toolbox." A bibliography is present.

Evidence includes but is not limited to:

The materials include cited research throughout the curriculum that supports the design of teacher and student resources. The "Math Research and Philosophical Approach" document, located in the Teacher Toolbox, cites research to support the design of the teacher and student resources. Some of the topics in this document include conceptual learning, number sense, computational fluency, and learning in a real-world, relevant context. There is a research summary, excerpt, and "Math Element" for each topic of design. For example, the document describes the program's concrete-representational-abstract (CRA) approach. First, it explains the research studied regarding the CRA approach and how it benefits students' learning. It

states that when students are first learning a new skill, they should use carefully selected concrete materials to develop their understanding of the new concept. Next, students begin to use pictorial representations that mirror their work with concrete models. Finally, students learn to translate these models into abstract representations using symbols and algorithms. This summary of the CRA approach to learning is supported with citations from *Special Connections*, 2005.

The materials embed the “Process Standards” within every scope and activity. In the Teacher Toolbox, for every process standard, materials provide the research, the meaning behind the standard, and how to apply it within the materials. For example, the materials address the process standard related to communicating mathematical ideas and their implications. The materials provide information on understanding the standard, along with relevant research from the National Council of Teachers of Mathematics (NCTM) and Van de Walle. The materials cite the research provided from the field of mathematics and explain how that research applies to the components of the materials. After describing how the process standard can be used within grades K-5, at the end of the process standard description, materials provide a summary. This summary includes a research statement from Van de Walle in addition to the overall summary and views of the materials.

The materials provide research-based guidance for instruction that enriches educator understanding of mathematical concepts and the validity of the recommended approach. In the Teacher Toolbox, there is a “Research and Philosophical Approach” chart that links the research with sections of the publisher’s “Math Elements.” The summary of the “Fact Fluency,” “Explore,” and “Decide and Defend” portions of the program quotes Marilyn Burns’ book *About Teaching Mathematics* (2007). The discussion on using picture vocabulary to attach new worlds to prior knowledge and basic communication using academic vocabulary references Vygotsky (1962) and ACSD (2008). The embedding of the ELPS strategies and the Explore activities are supported by Francis, Rivera, Lesauz, Kieffer & Rivera (2006). For example, materials provide the rationale behind including conceptual understanding and number sense. They state that students are more likely to retain and apply mathematics if they understand how and why different procedures work. Establishing conceptual understanding and number sense routines helps students understand the “why” behind other mathematical concepts. This philosophy about conceptual understanding and number sense is justified with a citation of Marilyn Burns’ *About Teaching Mathematics* and Laney Sammons’ *Guided Math*. Additionally, the mathematics instructional philosophy document explains the program’s Math Elements that support conceptual understanding and number sense.

Also in the instructional philosophy document, materials provide the rationale behind the importance of teachers’ and parents’ content knowledge as it can be found in the instructional materials. The materials state: “The ability of teachers and parents to help students understand math is limited by their own basic understanding.” The materials explain that many parents and teachers learned math differently than how it is currently taught and that it is important to provide them with content knowledge. The materials cite research conducted by the NCTM and

Marilyn Burns' text *About Teaching Mathematics* to justify their philosophy about the importance of content knowledge for teachers and parents.

The cited research is current, academic, relevant to skill development in mathematics, and applicable to Texas-specific context and demographics. The research cited in the materials includes sources that are well-known for research and practice in the field of mathematics. Many pieces of cited research are published by the NCTM, which, according to their website, is the world's largest mathematics education organization. Additionally, the research resources provided include many current articles and publications that address current mathematics teaching. For example, research surrounding the ideas of promoting equity within the mathematics classroom includes research published by Boaler and Staples in 2008, research published by Boaler in 2016, and research published by the NCTM in 2012. The materials were created by Rice University, located in Texas, after the success of the publisher's science program. According to the "New Teacher Navigation Guide," the materials were developed by teachers, for teachers.

A bibliography is present. Materials on research listed in the instructional philosophy document contain a bibliography citing several researchers and organizations, including Marilyn Burns, Jo Boaler, the NCTM, and Laney Sammons. There is also a bibliography that cites research presented throughout the instructional materials, which can be found in the Teacher Toolbox. Additionally, at the end of each component dedicated to the mathematics process standards, the materials cite the research and resources that were used in the rationale and explanation.

November  
2020

# Accelerate Learning Grade 1

**3.A.1** Materials develop student ability to use and apply a problem-solving model.

- Materials guide students in developing and practicing the use of a problem-solving model that is transferable across problem types and grounded in the TEKS.
- Materials prompt students to apply a transferrable problem-solving model.
- Materials provide guidance to prompt students to reflect on their approach to problem solving.
- Materials provide guidance for teachers to support student reflection of approach to problem solving.

## Meets 4/4

The materials guide students in developing and practicing the use of a problem-solving model that can be transferred across problem types. The materials include high-quality examples for developing and implementing problem-solving while providing adequate resources for the teacher. In “Skill Basics” lessons, students learn the problem-solving model they will use throughout the scopes and when solving problems. The materials also prompt students to variously apply a problem-solving model in context throughout the year. The “Content Support” and “Process Standard” documents provide teacher guidance pertaining to problem-solving models as well as support and prompt student reflection on approaches to problem solving. After each “Explore” lesson, the teacher facilitates a “Math Chat” where students discuss their learning and share how they solved the problem.

Evidence includes but is not limited to:

The materials guide students in developing and practicing the use of a problem-solving model that is transferable across problem types and grounded in the TEKS. The materials state that teachers should provide opportunities for students to analyze given information, formulate a plan or strategy, determine a solution, and justify and evaluate the process or strategy and reasonableness of a solution. Additionally, the materials state that students need multiple opportunities to share in pairs, small groups, or with the whole class in order to challenge or argue a solution or strategy. Students develop problem-solving skills in each Explore activity throughout the instructional materials. Each scope provides several Explore activities; they focus on problem-solving through the use of concrete and representational models. Students practice these skills in the Skill Basics activities embedded in each scope. In Skill Basics, for

example, students practice using a ten-frame, a hundreds chart, or a number line as tools to problem solve.

Each scope has a “Problem-Based Tasks” section that poses a real-world problem that students must analyze. Students formulate a strategy with a group, create a problem-solving model, and then determine and justify their answer through dialogue with their group. Each Problem-Based Task also has a “Think About” question that requires students to reflect on the reasonableness of their response and elaborate on other ways that they could have solved the problem. Math Chats also help guide the students to reflect on the strategy they used and to justify their answers.

The materials prompt students to apply a transferrable problem-solving model. Within each scope, in the “Explain” tab, materials provide descriptions and examples of usable anchor charts. The class creates the anchor charts together and uses them as a reference tool throughout the scope. Each scope in the instructional materials includes an anchor chart example that models problem solving and can be used as a quick reference for students. In addition, each Explore activity in the instructional materials comes with a “Student Journal.” The journal prompts students to apply the problem-solving model they are learning within that lesson. In most instances, there is a template of the problem-solving model in the Student Journal. The Explore lessons include guiding questions for teachers to use to support students in learning the model.

The materials provide guidance to prompt students to reflect on their approach to problem solving. In the “Hook” activities within the “Engage” component of the materials, students are asked to consider what they already know, consider what information they need to find out, discuss solutions to the problem, and justify their responses. “My Math Thoughts” are journal prompts that provide students with the opportunity to write out their mathematical thoughts and ideas using several different avenues. These activities prompt students to reflect on their approach to problem solving. My Math Thoughts are in each scope, and students are tasked with using the problem-solving skills taught in the lesson to solve a problem before completing a reflection. The reflection asks students to circle how they feel about different problem-solving skills presented in the unit. The options that students can circle include “I got it!” “Almost there!” and “Not yet!” Questions on different levels accommodate all students as they reflect on what they are learning and how they use strategies to solve their problems. Reflective questioning suggestions include, “What did you notice?” “Is there a different way to count out your crackers?” “Is there a math tool you could use?” Although it is not consistent throughout each piece of the instructional materials, there is an opportunity for students to reflect on the problem-solving model that they are using. This reflection seems to focus more on the student’s ability to use the skill as opposed to how effective the skill was as a problem-solving resource.



November  
2020

# Accelerate Learning Grade 1

**3.A.2** Materials provide opportunities for students to select appropriate tools for the task, concept development, and grade.

- Materials provide opportunities for students to select and use real objects, manipulatives, representations, and algorithms as appropriate for the stage of concept development, grade, and task.
- Materials provide opportunities for students to select and use technology (e.g., calculator, graphing program, virtual tools) as appropriate for the concept development and grade.
- Materials provide teacher guidance on tools that are appropriate and efficient for the task.

## Meets 4/4

The materials provide teachers with examples of how to introduce and explain the correct use of the manipulatives. Within the scopes, the materials provide multiple opportunities for students to learn how to use the various mathematical tools that are available. This includes both hands-on and virtual manipulatives. Students can select whether they want to use hands-on manipulatives or virtual manipulatives. Students can also select which manipulatives they want to use when completing the “Math Thought” activities; on occasion, they can select the tools they want to use during “Explore” activities. Virtual manipulatives are available within most scopes for students to use when completing activities. Material lists are explicitly provided for each scope and each activity, although there is not a specific rationale behind why each manipulative was selected. However, the “Teacher Toolbox” provides information within the process standard regarding intentional tool selection that helps teachers understand why particular tools are selected for different scopes and activities.

Evidence includes but is not limited to:

The materials partially provide opportunities for students to select and use real objects, manipulatives, representations, and algorithms as appropriate for the stage of concept development, grade, and task. They provide students opportunities to learn to use grade-appropriate tools for solving tasks and understanding concepts. For example, in the scope focused on creating and composing two-dimensional shapes, a “Skill Basics” lesson teaches students how to use a geoboard to create various 2D shapes. The teacher begins by modeling

how to create the square shape on a geoboard by manipulating a rubber band on the pegs. Then, students answer questions about how they used their rubber bands and geoboards to make a shape, about the shape they made, and about its attributes. Teachers then challenge students to create the remaining shapes found on the provided geoboard shape cards. Students have time to explore this tool so they can use it for mathematical concepts in the Explore lessons that follow.

Although students are not always allowed to select their own grade-appropriate tool for solving tasks, there is an embedded portion that allows for student choice. Many of the Explore activities are guided and provide teachers with instructions on which tool to provide for students; however, in the “Show What You Know” activities, students apply the knowledge and skills learned during the Explore activities using tools that they select.

The materials provide opportunities for students to select and use technology (e.g., calculator, graphing program, virtual tools) as appropriate for the concept development and grade. Most scopes have virtual manipulatives that students can use during Explore lessons. Virtual manipulatives related to the scope are found under the Explore tab. Each virtual manipulative has a video tutorial teachers use to model the correct use of the manipulative. When applicable, Explore activities prompt teachers to “go digital.” This means that teachers can assign each student a virtual manipulative, rather than a concrete manipulative, to use as a support throughout the activity. For example, in Explore 1 of the “Compare and Order Numbers to 120” scope, the lesson includes virtual linking cubes that students can use to complete the task. In Explore 2 of the “Create and Compose Two-Dimensional Shapes” scope, students work to compose a target shape by joining two or more 2D shapes. Instead of using pattern blocks, this activity gives students the opportunity to use virtual pattern blocks to problem solve. The instructional materials also provide an “Interactive Practice” that allows students to use technology to solve real-world virtual problems designed to look like a game. The Interactive Practice combines math problem solving and technology in a real-world scenario.

The materials provide teacher guidance on tools that are appropriate and efficient for the task. The instructional materials have a Teacher Toolbox that contains a section titled “Intentional Selection of Tools and Techniques to Solve Problems.” This section provides teachers with some background knowledge of common tools used in various grade levels. Each scope also contains a “Content Support” section on the “Home” page. This section explains which tools are appropriate and efficient for the unit. Each Explore lesson contains a materials list so teachers know which tools are appropriate and efficient for the task. Each Explore lesson lists how many of each manipulative will be used in the activity and when to use them during the activity. For example, in Explore 4 of the “Money” scope, students work on counting collections of coins. The lesson plan states that teachers need to prepare 14 pennies, 15 nickels, 12 dimes, and 5 hundreds charts for the class. Students rotate to different stations and use the hundreds chart to count the collection of coins at the station.

The materials also suggest when to move students from using a certain tool to a more appropriate tool. In Explore 1 of the “Addition and Subtraction Problem Solving” scope,

students represent and solve addition and subtraction problems using models and number sentences. Before the lesson, the teacher sets up a manipulatives table with one container of counters, one container of linking cubes, and one container of bear counters. The preparation section of the lesson plan states that students can access the manipulatives as needed. Students are encouraged to use pictures, strip diagrams, or number lines to help them problem solve. The “Instructional Supports” section states that students may still need concrete objects to represent the problems. Teachers should prompt students to move toward the symbolic stage and slowly remove manipulatives toward the end of the activity.

November  
2020

# Accelerate Learning Grade 1

**3.A.3** Materials provide opportunities for students to select appropriate strategies for the work, concept development, and grade.

- Materials prompt students to select a technique (mental math, estimation, number sense, generalization, or abstraction) as appropriate for the grade-level and the given task.
- Materials support teachers in understanding the appropriate strategies that could be applied and how to guide students to more efficient strategies.
- Materials provide opportunities for students to solve problems using multiple appropriate strategies.

## Meets 4/4

The materials provide a variety of opportunities for students to select problem-solving strategies that are appropriate for the work, concept development, and grade. In addition, the instructional materials provide teachers with guidance, support, and general background knowledge on various strategies and their importance. Many activities ask students to reflect on their chosen strategy versus a different strategy; some even ask students to solve one problem using multiple different strategies. The “Content Support” section explains the different strategies students will learn throughout the scope and how to develop the use of those strategies across different activities. Students learn a variety of strategies throughout a scope that can be used to solve a class of problem types. The “Explore” lessons provide students with opportunities to apply multiple strategies to solve a problem.

Evidence includes but is not limited to:

The materials prompt students to select a technique as appropriate for the grade level and the given task. The “Daily Numeracy” component ensures that all students participate and engage as mathematical thinkers. The goal is to empower students to reason with numbers in an accurate, efficient, and flexible way. The class gathers as a whole group in a central location where the teacher displays a numeracy activity. The students think about what they see and how they will solve the problem mentally. Throughout, the instructional materials often guide students to use generalization and abstraction techniques as they explore new concepts and apply them to new contexts. For example, each scope has several Explore activities. These activities prompt students to use various problem-solving skills and techniques. “Math Chat,”

embedded in each Explore activity as a closure, provides opportunities for students to share problem-solving techniques. The materials also support students in selecting techniques that are appropriate for their grade level. For example, because the instructional design follows the “5E” model, students are allowed to explore a variety of problem-solving techniques, including estimation and number sense, prior to completing the “Explain” portion of the lesson. The Explain portion of the lesson provides an opportunity for students to showcase their learning and to explain their mathematical ideas.

The materials support teachers in understanding the appropriate strategies that could be applied and how to guide students to more efficient strategies. The materials support teachers in understanding which strategies are appropriate for solving tasks within various scopes. The “Facilitation Points” and the Content Support sections prior to the start of each scope provide guidance for teachers. Visuals help teachers “bridge the connection from concrete model to pictorial model to abstract model” throughout the course of students’ learning, which allows students to solve more efficiently. The support document explains where students should be in their knowledge acquisition for the content and the strategies students should be using based on their current level of development and age. For example, in the scope related to addition and subtraction problem solving, the materials state that students will create and solve word problems; join and separate numbers to solve equations in which the result, start, or change is unknown; and compare numbers for which the difference or set is unknown. Students will investigate single and multistep word problems using strategies that include acting out problems using manipulatives as well as using pictorial models, number lines, and part-part-whole relationships. The materials also state that students will be exposed to a combination of addition and subtraction problem types that are solved using manipulatives and pictorial models. Students may not be familiar with strip diagrams and number lines, so teachers will need to explicitly teach them for students to use them effectively. Finally, the document states that students’ skills can be assessed by determining whether they are still using objects and pictures or whether they are using basic fact strategies learned in the previous scopes. When students begin to generate their own word problems, the materials describe that abstract ideas are the goal; however, if students are still having difficulty thinking of a scenario, they can use objects and pictorial models to help visualize a problem.

The “Mathematics Instructional Philosophy” document, provided within the “Teacher Toolbox,” explains that as students progress through the Explore activities within a scope, they transition from hands-on experiences with concrete objects to representational, pictorial models and ultimately arrive at symbolic representations using only numbers, notations, and mathematical symbols. The layout of the Explore activities and the sequence in which they are taught support teachers as they guide students towards increasingly efficient strategies. In the scope related to composing and decomposing numbers to 120, students begin the Explore activities by counting and organizing collections up to 99, focusing on tens and ones using base-ten blocks. Next, students move on to the sum of tens and ones and take those ideas of using the base-ten blocks to model tens and ones to a standard form of a number. Then, students begin to think of abstract ideas as they think of relationships of 10 more and 10 less. Next, students work on composing and decomposing numbers in more than one way, which allows them to select the

strategy they want to use when decomposing. Finally, students take the skills learned in previous scopes and apply them to numbers beyond 99 and how that affects tens and ones.

The materials provide opportunities for students to solve problems using multiple appropriate strategies. Students learn how to draw a picture, use a strip diagram, and use a number line to help them add and subtract in the “Addition and Subtraction Strategies” scope. In Explore 1 of this scope, students choose a strategy to represent and solve addition and subtraction problems. They rotate around the room to read various addition and subtraction word problems and record their work in their student journal. The instructions state that students should use a picture, strip diagram, or number line to solve each scenario and write a number sentence to show their answer. During the Math Chat, students discuss which strategies they used and explain if they chose to use different strategies for different problems. Within the materials, students consistently come across problems that provide the opportunity to solve using multiple appropriate strategies. For example, every Explore activity opens with a scenario that is related to the concept being practiced. These activities include very little teacher-led instruction and involve students in discovering learning through solving problems. Students are not expected to use just one way of solving problems, and they have time to share their strategies with other students in the class.

November  
2020

# Accelerate Learning Grade 1

**3.A.4** Materials develop students' self efficacy and mathematical identity by providing opportunities to share strategies and approach to tasks.

- Materials support students to see themselves as mathematical thinkers who can learn from solving problems, make sense of mathematics, and productively struggle.
- Materials support students in understanding that there can be multiple ways to solve problems and complete tasks.
- Materials support and guide teachers in facilitating the sharing of students' approaches to problem solving.

## Meets 4/4

The materials develop students' self-efficacy and mathematical identity by providing opportunities to share strategies and approaches to a task. The materials are designed so that students complete most activities with a partner or in a group. Students share ideas and learn from each other as they explore new concepts. All students have an opportunity to participate and engage as mathematical thinkers during their collaborative work. The materials include tasks that support students in productive struggle as they learn concepts. The materials also support and guide teachers in facilitating the sharing of students' approaches to problem solving. The "Content Support" document describes how to support students in selecting strategies to solve problems related to the concepts and provides the teacher with multiple question stems and prompts in order to support students both during and after activities. In addition, embedded "Facilitation Points" provide teachers with guidance and support. Materials provide sample responses as an added layer of teacher support.

Evidence includes but is not limited to:

The materials support students to see themselves as mathematical thinkers who can learn from solving problems, make sense of mathematics, and productively struggle. The "Daily Numeracy" component ensures that all students participate and engage as mathematical thinkers. The goal of Daily Numeracy is to empower students to reason with numbers in an accurate, efficient, and flexible way. The class gathers as a whole group in a central location where the teacher displays a numeracy activity. Students think about what they see and how they will solve the problem mentally. Students use hand signals to indicate if they are still thinking, if they have one strategy, or if they have more than one strategy. Once everyone has at least one strategy,

the teacher facilitates a conversation about the strategies the students suggested. The Daily Numeracy lesson plan describes the environment of the classroom as an accepting and safe sharing environment. Students should feel and believe that it is a risk-free environment where making mistakes and diverse thinking are expected parts of the learning process. Materials provide students with tasks to solve in order to struggle productively and learn the content through their experiences. Each scope begins with a “Hook”; it sets the stage for learning a new skill by presenting a problem that students cannot yet solve. Students then move to the “Explore” tasks, where they work in groups to explore concepts through problem-solving. For example, in the “Trading-Card Troubles” activity, students solve a real-world problem by deciphering what they already know from the information given and what they need to find out. As students work through the problem, the teacher facilitates a discussion with given prompts.

The materials provide opportunities for students to see themselves as doers and thinkers through the use of scenario-based problem-solving. Each unit or scope has scenarios that the teacher reads aloud or shares with the class; in these scenarios, students imagine themselves in the role of the problem solver. These scenario-based story problems are targeted to reach all students and provide opportunities for all students to see themselves as mathematical thinkers.

The materials support students in understanding that there can be multiple ways to solve problems and complete tasks. Within each component of the scope, students receive tasks designed to allow for multiple pathways to a solution. For example, within the “Engage” component, students complete the Hook activity, where they listen to a scenario and answer a question using any preferred strategy. Students use their prior knowledge and conversations with a partner in order to determine a solution to the problem. Then, teachers encourage students to share their thinking and strategies with their classmates.

“Life Connections” activities introduce students to careers and everyday life experiences that highlight the mathematical concepts they are learning in the classroom. For example, in the scope focused on time, Life Connections highlight the career of a ferry-boat captain. Students discuss why it is important for captains to be able to tell time and stay on a schedule, how schedules help us in our daily life, what could happen if a ferry boat captain does not stay on schedule, and whether students would be interested in such a job in the future. These activities relate the math skill to real-world activities and careers.

Materials support and guide teachers in facilitating the sharing of students’ approaches to problem solving. In several instances, materials encourage the use of divergent solution strategies. This can be seen through the scripted scaffolding opportunities and teacher questioning as students problem solve. Facilitation Points and lesson guidance support monitoring students as they develop solution strategies. The Facilitation Points also provide sample student responses to guide students as they problem-solve. Sample student responses are written in red throughout the instructional materials, where there are opportunities for students to engage in problem-based tasks and hands-on activities. The Daily Numeracy routines encourage students to mentally solve problems in a whole group setting. Students



share about how they solved the routine rather than just tell their answer. This allows for students to articulate their steps to clarify their problem-solving process. Content Support provides teachers with possible misconceptions for the upcoming scope and explains how to clarify those misunderstandings.

November  
2020

# Accelerate Learning Grade 1

**3.B.1** Materials prompt students to effectively communicate mathematical ideas, reasoning, and their implications using multiple representations.

- Materials provide students opportunity to communicate mathematical ideas and solve problems using multiple representations, as appropriate for the task.
- Materials guide teachers in prompting students to communicate mathematical ideas and reasoning in multiple representations, including writing and the use of mathematical vocabulary, as appropriate for the task.

## Meets 4/4

The materials provide students an opportunity to communicate mathematical ideas and solve problems using multiple representations. The materials prompt students to effectively communicate mathematical ideas, reasoning, and their implications using multiple representations. During “Explore” activities, students communicate mathematical ideas through concrete objects, pictorial models, numerical expressions, and verbal discussion. The materials also guide teachers in prompting students to communicate mathematical ideas and reasoning in multiple representations, including writing and the use of mathematical vocabulary. After each lesson, students communicate their ideas orally through a teacher-facilitated “Math Chat.” The materials guide teachers in prompting students to communicate mathematical ideas and use mathematical vocabulary. Each lesson plan includes prompts for teachers to use to guide students in their learning and to reflect on the activity once it is complete. Each lesson plan includes facilitation points that guide teachers in developing students’ mathematical vocabulary. The “Content Support” documents give teachers suggested prompts in order to engage students in discussion about their mathematical ideas.

Evidence includes but is not limited to:

The materials provide students opportunities to communicate mathematical ideas and solve problems using multiple representations, as appropriate for the task. Students communicate using multiple representations and precise mathematical language throughout the program. For example, in each scope, during Explore tasks, students draw representations and explain their thinking on their “Student Journal” pages. The “Facilitation Points” in the Explore lessons guide teachers in asking guiding questions, introducing new vocabulary, and recording ideas on the Student Journal page. These opportunities for students to use representations to organize

and show their thinking is evident throughout the instructional materials. “Math Chats” also provide opportunities for students to verbally communicate how they solved. Students use concrete models, such as colored cubes, linking cubes, centimeter cubes, and various colored counters, to solve and communicate their ideas.

In Explore 2 of the “Fractions” scope, students identify examples and non-examples of halves and fourths. They receive real crackers and a Student Journal handout to complete this activity. With a partner, students snap their crackers into two and four equal parts and sort the crackers into two piles: examples and non-examples. Examples are crackers that snapped into equal parts; non-examples are crackers that did not snap into equal parts. After students snap all of their crackers, they record their learning in their Student Journal. Students select an example of crackers that show halves or fourths and a non-example of a cracker that does not show halves or fourths; then, they draw a picture to show a representation of each. Finally, students answer the reflection question, “What makes the cracker a nonexample of halves and fourths?” Students then communicate their ideas to the rest of the class during the Math Chat.

The materials guide teachers in prompting students to communicate mathematical ideas and reasoning in multiple representations, including writing and the use of mathematical vocabulary, as appropriate for the task. Teachers receive guidance and specific questions in the Facilitation Points of the lessons. These questions guide students as they participate and explore. After students have completed the lesson, Math Chat questions allow them to share their findings and observations. For example, after an Explore lesson in which students are learning about properties of operations, they answer questions like “How could you represent that using your linking cubes?” and “What strategy did you use to solve each number sentence?” These question types prompt students to think about how they solved. Journaling also allows students to write down their thoughts and promote the sharing of mathematical concepts. In the Content Support section for the teachers, there is an overview of the upcoming scope and mathematical language for the lessons.

Materials provide teacher prompts to support students’ reasoning with multiple representations, as appropriate for the task. For example, in the scope focused on composing and decomposing numbers to 120, students engage in an Explore activity where they compose and decompose numbers in more than one way. During the activity, prompts support student reasoning as they are working. Some of these questions include, “How can you represent this number in groups of tens and ones?” “What is another way you could group your cubes into tens and ones?” and “Are these the only two ways to make the number?” Additionally, after the activity, students engage in a Math Chat, and the teacher has more prompts to support students’ reasoning with multiple representations. Some of these include “How did you represent the number of carrots with linking cubes?” “Were you able to decompose any of the numbers into only groups of ten?” and “If I have 32 linking cubes, how can I compose 32 with cubes?” This lesson also supports teachers in developing students’ use of mathematical vocabulary. The materials also provide instructional supports for teachers to help students who are struggling with the concept of composing and decomposing. The materials suggest explicitly teaching that put together is to *compose* and take apart or take away is to *decompose*.

November  
2020

# Accelerate Learning Grade 1

**3.B.2** Materials provide opportunities to discuss mathematical ideas to develop and strengthen content knowledge and skills.

- Materials provide opportunities for students to engage in mathematical discourse in a variety of settings (e.g., whole group, small group, peer-to-peer).
- Materials integrate discussion throughout to support students' development of content knowledge and skills as appropriate for the concept and grade-level.
- Materials guide teachers in structuring and facilitating discussions as appropriate for the concept and grade-level.

## Meets 4/4

The materials provide opportunities for students to engage in mathematical discourse in a variety of settings. Students engage in whole group discussions during “Hook” activities as well as during “Math Chats,” after completing “Explore” activities. Students engage in small group discussions during “Problem-Based Tasks” and during some “Elaborate” activities, such as “Fluency Builders” and “Life Connections.” Students also engage in partner discussions during Explore activities, Fluency Builder games, and “Acceleration” activities. The materials integrate discussion throughout to support students' development of content knowledge and skills as appropriate for the concept and grade level. Students actively engage in discussing their mathematical thinking in all components of each scope; teachers model mathematical language, which is built into the conversations. Materials guide teachers in structuring and facilitating discussions as appropriate for the concept and grade level. Teachers receive guidance through the “Teacher Toolbox”—specifically with the process standards and “Communicate” math component. Materials suggest hand signals, possible sentence stems, and questions for teachers to use throughout the scopes.

Evidence includes but is not limited to:

The materials provide opportunities for students to engage in mathematical discourse in a variety of settings. The materials intentionally provide opportunities for students to engage in mathematical discussions in a variety of different groupings. Students have multiple opportunities to engage in discussions with partners, small groups, and the entire class based on the activity and setting of the lesson. Each scope opens up with a Hook activity in which students are given an engagement piece to introduce the scope. Explore tasks encourage small

group time to problem solve. Each lesson provides instructions on how the teacher should group students. Grouping possibilities range from pairs of student groups to groups with five students. While in small groups, the teacher facilitates the Math Chat questions to determine mastery. Throughout the lessons, students share their thinking with a neighbor and also have opportunities for whole group discussion. Intervention and Acceleration tasks are conducted in small group settings, giving students the opportunity to engage with other students and the teacher and have mathematical discussions. In those small groups, students discuss the task with one another and respond to prompts provided by the teacher to move along their mathematical thinking. At the end of the lesson, the teacher orchestrates a whole group discussion with the class based on observations conducted during the small group. The teacher records individual student responses through conversations, journal responses, and “Show What You Know” assignments.

The materials integrate discussion throughout to support students’ development of content knowledge and skills as appropriate for the concept and grade level. Students have opportunities to discuss mathematical ideas throughout the program. Materials provide teachers with specific facilitation points and guiding questions that can be used to facilitate this level of mathematical discourse. Opportunities are embedded with discussions in all phases of concept and skill development. Each Explore lesson includes opportunities for discussion in all phases of the activity. At the beginning of the lesson, the teacher reads a scenario to the class. In groups or partners, students discuss how they will solve the problem. While students are working, the teacher monitors the students and asks guiding questions. At the end of the activity, the teacher facilitates a Math Chat using prompts included in the lesson plan.

For example, in Explore 2 of the “Data Analysis” scope, students select a question, survey classmates, create picture graphs, and generate questions about their graphs. At the beginning of the lesson, the teacher reads a scenario about helping the PE coach plan for field day. In partners, students pick from a variety of questions to use to survey their classmates, such as “What is your favorite field day drink?” and “What is your favorite field day activity?” Partners discuss which question they want to ask and the choices their classmates will have. While students are working, the teacher rotates to each group and asks guiding questions to check for understanding. Questions include “How can you use the data from the tally chart to create a picture graph?” “How can we use the categories and title from the tally chart on the picture graph?” and “What did you notice about the picture graph?” At the end of the activity, the teacher facilitates a Math Chat where students discuss what they learned in the activity. Prompts include “What kinds of questions did you create for the picture graphs you observed around the room?” “What other kinds of people can we survey for field day?” “Using a picture graph, how can we determine how many total people were surveyed?” “When surveying, can one student pick more than one choice?”

The materials guide teachers in structuring and facilitating discussions as appropriate for the concept and grade level. In the Teacher Toolbox, there is a tab designated for communicating math. Within that tab, teachers have guidance to support students in the elements of discourse, making connections, questioning, representations, and writing. According to the

materials, discourse is an oral exchange of ideas or a conversation between two or more students. It provides students the opportunity to share ideas with others in order to solve problems, increase learning, or express opinions. Discourse may take place around mathematical concepts, procedural knowledge, or problem-solving processes and solutions. Discourse can take place in a whole group setting, small groups, or partner groups. Materials provide teachers with clear expectations in order to facilitate discourse in the K-2 classroom. These expectations include the following ideas: modeling discourse interactions for students to have a clear understanding of what discourse is and what it sounds like; allowing students to use tools or models necessary to help with their expectations; providing sentence stems to help scaffold language; allowing adequate wait time after asking a question or hearing a response; ensuring each student contributes to the discussion with clear and organized thoughts and ideas; actively listening by making eye contact with the speaker and asking questions; including accurate academic math vocabulary; and presenting and explaining ideas, reasoning, and representations in pairs, small groups, or the whole class.

Each lesson plan includes prompts for teachers to use throughout the lesson, facilitations points on when to ask the prompts, and sample student answers to guide the discussion. The facilitation points instruct teachers to invite the class to a Math Chat to share their observations and learning after the activity. The “Daily Numeracy” component ensures that all students participate and engage as mathematical thinkers. The goal of Daily Numeracy is to empower students to reason with numbers in an accurate, efficient, and flexible way.

November  
2020

# Accelerate Learning Grade 1

**3.B.3** Materials provide opportunities for students to justify mathematical ideas using multiple representations and precise mathematical language.

- Materials provide opportunities for students to construct and present arguments that justify mathematical ideas using multiple representations.
- Materials assist teachers in facilitating students to construct arguments using grade-level appropriate mathematical ideas.

## Meets 4/4

The teacher materials foster students to justify their reasoning. They also help teachers establish a math routine. Materials provide opportunities for students to construct and present arguments to justify mathematical ideas using multiple representations. Students are able to justify their thinking using concrete manipulatives, pictorial models, equations (when necessary), and oral explanations. Students have the opportunity to justify and defend their thinking frequently throughout the scopes, particularly when completing “Explore” activities. Students can also present and justify their thinking through activities such as “Math Thoughts” and the show-and-tell assessment. The materials also assist teachers in facilitating students to construct arguments using grade-level appropriate mathematical ideas. Question stems throughout the materials help teachers facilitate conversations with students that allow them to justify and defend their thinking. Additionally, in the “Daily Numeracy” scope, provided teacher tools such as hand signals and sentence stems support students as they defend and justify their thinking in a productive way.

Evidence includes but is not limited to:

Materials provide opportunities for students to construct and present arguments that justify mathematical ideas using multiple representations. Problem-solving activities lead students to justify their reasoning verbally and in written form using different methods. Teachers guide students in creating an argument by asking questions while they work and encouraging them to justify their answers with representations they create throughout the activity. For example, in Explore 3 of the “Addition and Subtraction Strategies” scope, students apply the properties of operations to add and subtract number sentences. In small groups, students rotate to different stations that have number sentences requiring students to add or subtract three numbers. Students use linking cubes to create a concrete model of the number sentences and solve for

the answer. While students are working, the teacher asks each group guiding questions; students must create an argument and justify their answers using examples from their models. Some questions include, “How could you represent this using your linking cubes?” “Is there another way to represent the same problem?” and “Do you get the same answer? Why?” In their “Student Journals,” students draw a picture to show how they solved the number sentence. Each question prompts students about the number sentence. For example, on one task card, students must add  $5+0+5$  and  $0+5+5$ . The question in the journal asks, “What do you notice about these two number sentences? Explain.” Students write their observations and justify their answers using evidence from their work.

The materials assist teachers in facilitating students to construct arguments using grade-level appropriate mathematical ideas. The “Teacher Toolbox” provides guidance for teachers on facilitating the process standard of displaying, explaining, and justifying mathematical ideas. According to the materials, this standard focuses on students validating their conjectures and conclusions with displays, explanations, and justifications, with an emphasis on mathematical ideas and arguments. The materials also state that problems provide a context in which students draw conclusions and support mathematical ideas or arguments with their evidence. Throughout the scopes, teachers use provided question stems to promote explanations and justification of mathematical ideas during discussions. For example, in the scope related to addition and subtraction strategies, in an Explore activity, students practice balancing equations using addition and subtraction. Questions include “Are your number sentences balanced/equal? How do you know?” Students must defend and justify their thinking using concrete objects, pictorial models, and oral explanations. Additionally, during the “Math Chat,” questions include “Look at the number sentence  $253 = 83$ . Do you think this number sentence is true or false? Why?” This question lends itself to student conversations that require them to explain and justify their thinking.

The Daily Numeracy component ensures that all students participate and engage as mathematical thinkers. The goal of Daily Numeracy is to empower students to reason with numbers in an accurate, efficient, and flexible way. After students formulate at least one mental strategy, the teacher facilitates a conversation about the strategies the students suggested. Students first share their ideas with a partner and then with the whole class. Students learn from each other as they listen and respond to their peers’ problem-solving strategies. To show that they agree with another student’s response, students put their pinky finger and thumb out and shake it back and forth. Teachers also invite students to respectfully disagree with another student’s response. The Daily Numeracy lesson plan includes prompts for teachers to use to guide students in justifying their answers. Some prompts include “Explain how you...” “How do you know your answer is reasonable?” “How can you explain this differently?” “Can you justify/defend how you...?”



November  
2020

# Accelerate Learning Grade 1

**4.1** Materials include developmentally appropriate diagnostic tools (e.g., formative and summative progress monitoring) and guidance for teachers and students to monitor progress.

- Materials include a variety of diagnostic tools that are developmentally appropriate (e.g., observational, anecdotal, formal).
- Materials provide guidance to ensure consistent and accurate administration of diagnostic tools.
- Materials include tools for students to track their own progress and growth.
- Materials include diagnostic tools to measure all content and process skills for the grade level, as outlined in the TEKS and Mathematical Process Standards.

## Meets 2/2

The materials include a variety of diagnostic tools that are developmentally appropriate; for example, diagnostic tests (formal assessments) are given three times a year. The materials also include other formal assessments at the end of each scope, such as the “Show-and-Tell” assessment and the “Skills Quiz.” Additionally, the materials provide informal assessments to help guide teacher instruction, such as observations during prior-knowledge activities and an observation checklist for each scope. The materials provide guidance on the administration of formal and informal assessments. Students have the opportunity to reflect on their understanding of concepts within a scope during the “My Math Thoughts” activity, and the materials provide the opportunity for students to set goals and track and monitor progress on those goals or their mastery of various standards. Diagnostic tools are presented to measure all content standards.

Evidence includes but is not limited to:

The materials include a variety of diagnostic tools that are developmentally appropriate. Materials provide teachers with an array of assessments ranging from anecdotal notes and checklists to formal assessments administered three times a year. In first grade, there are formal assessment tools, such as the “Pre-Assessment,” “Mid-Year Assessment,” and the “Post-Assessment.” Students complete the Pre-Assessment to determine what they remember from the previous year’s standards. This allows teachers to identify knowledge gaps before attempting to build on that knowledge throughout the year. The first grade Pre-Assessment assesses students’ knowledge of counting, identifying numbers represented in ten-frames,

comparing numbers, solving contextual word problems, identifying coins and shapes, and analyzing graphs. About halfway through the year, students complete a Mid-Year Assessment to monitor their progress and track growth. Finally, students complete an end-of-year Post-Assessment that evaluates all grade-level standards. The first-grade post-assessment tests students' knowledge of all first grade standards, including, but not limited to, solving contextual word problems, using number lines, describing attributes of 3D solids, and understanding fractions. Each assessment provides class performance analytics, standard analysis, item analysis data, and a personal quantile measure for each student, which can be used to inform instruction. The "Benchmark Assessments" home screen provides guidance on how the assessments function. Informal assessments are noted within the scopes and include facilitation points for the teacher. Students are able to show their knowledge in a variety of ways, such as journal entries, verbal communication, modeling with concrete manipulatives, formal assessments, exit tickets, and skill-builder assignments.

The materials provide guidance to ensure consistent and accurate administration of diagnostic tools. Each diagnostic tool includes facilitation instructions for teachers to follow as they administer formal and informal assessments. For example, the "Show What You Know" assessments are independent practice assignments that give students an opportunity to demonstrate their learning after scope activities. In the "Classifying Two-Dimensional Shapes" scope, students complete "Show What You Know, Part 2: Identifying and Classifying Shapes" after Explore 2. There are facilitation points for teachers to read to implement the assessment correctly. Teachers provide each student with a handout; students must identify the name of the 2D shape and the number of vertices when given the number of sides of the shape. The facilitation points state that this element of the program can be used to assess whether intervention is needed for each student. The assessment also includes an answer key that teachers can use to accurately grade each handout. At the end of each scope, an observation checklist guides teachers with facilitation. The materials suggest that as students are working through the Explores for each scope, teachers should take note of what they observe for each standard. The materials also state that this is a good place to document accommodations or modifications used during the Explores as well as to conduct documentation for standards-based report cards. The observation checklist provides teachers with the TEKS covered in the unit and the specificity within each TEKS. Materials also provide teacher guidance on which Explore activity can be used to document student mastery of each TEKS and a place to write anecdotal notes as students are working.

The materials include an age-appropriate tool for students to track their own progress and growth. Exit tickets and the My Math Thoughts activity allow students to reflect on their problem-solving. In My Math Thoughts, students self-assess their learning by completing the bottom part of the student handout. They circle how they are feeling about their work in each skill. The three choices that help them reflect upon their learning are *I got it*, *almost there*, and *not yet*; each statement includes a visual of thumbs up, thumbs down, or thumbs sideways. While students are able to reflect on their understanding of specific concepts within scopes, there are no evident opportunities for students to track their own progress and growth based on assessment information.

The materials include diagnostic tools to measure all content and process skills for the grade level, as outlined in the TEKS and Mathematical Process Standards. The instructional materials provide various diagnostic tools, including both informal and formal assessments. Formal assessments include benchmark assessments that can be given three times throughout the year to track student progress. The pre-, mid-, and post-assessments can be administered as a formal assessment. Each assessment provides a blueprint to the TEKS that will be covered on the assessment. For informal assessments, throughout the instruction material, each component of the 5E model provides an opportunity for students to show their understanding of a concept. For example, in the Explore section, there is a “Student Journal” that allows students to record their answers; in the “Evaluate” portion, there is a Skills Quiz that tests the mastery of the skill being taught in that unit.

“Accessing Prior Knowledge” activities are brief probing activities to gauge students’ prior knowledge before engaging in new content taught in the Explore activities. For example, in the “Fractions” scope, Accessing Prior Knowledge assesses students’ prior knowledge from kindergarten, such as their ability to compare two objects with a common measurable attribute. The teacher hangs various shapes around the room; students compare them by describing if a shape is *larger*, *smaller*, or *the same*. Facilitation points state that if students struggle to complete this activity, the teacher should use the “Foundation Builder” activity to fill the gap in prior knowledge before moving on to other parts of the scope. The materials also include formal assessments that measure the content and process standards outlined by grade-level TEKS. Each scope includes a Show-and-Tell assessment and a Skills Quiz. Show-and-Tell assessments are quick assessments graded by a rubric. Students use manipulatives to respond to teacher prompts.

November  
2020

# Accelerate Learning Grade 1

**4.2** Materials include guidance for teachers and administrators to analyze and respond to data from diagnostic tools.

- Materials support teachers with guidance and direction to respond to individual students' needs in all areas of mathematics, based on measures of student progress appropriate to the developmental level.
- Diagnostic tools yield meaningful information for teachers to use when planning instruction and differentiation.
- Materials provide a variety of resources and teacher guidance on how to leverage different activities to respond to student data.
- Materials provide guidance for administrators to support teachers in analyzing and responding to data.

## Meets 2/2

The materials support teachers with guidance and direction to respond to individual students' needs based on informal assessments and observations in the classroom. The materials include guidance for teachers to analyze and respond to data. Protocols are included for formal and informal assessment, with guidance for teachers on how to use the data to drive instruction. Assessment and response routines are present within the scopes to address student learning needs. The materials include a variety of diagnostic tools for teachers to use throughout the school year. Assessments include informal assessments such as exit tickets or individual student worksheets. Formal assessments include "Benchmark Assessments," "Show-and-Tell" assessments, and "Skill Quizzes." Each assessment tool includes an answer sheet for teachers to use while they are grading. Some answer keys also state which standard individual questions assess. The materials provide callout boxes or instructions within our markdowns to guide teachers on how to use the data to plan instruction. For example, at the end of Accessing Prior Knowledge, teachers are prompted to move to the Foundation Builder if students are still not understanding the concept. The program's lesson planning guides assist teachers in knowing when to administer different assessments and how to evaluate and respond to data. The materials include a variety of activities for teachers to use to address the results of student assessments. Each scope includes an "Intervention" section for students approaching grade-level expectations and an "Acceleration" section for students who have mastered grade-level expectations. Benchmark Assessments provide teachers with meaningful data that can be used to inform instruction; the data can be compared with other classes or schoolwide.

Evidence includes but is not limited to:

The materials support teachers with guidance and direction to respond to individual students' needs in all areas of mathematics, based on measures of student progress appropriate to the developmental level. Within every unit, a "Content Support" document provides teacher guidance on scaffolding within the scope. A "TEKS Unwrapped" component breaks down the TEKS within the scope and provides implications for instruction and student misconceptions. Each kindergarten scope begins with an informal assessment to assess prior knowledge. If a child is unable to complete the assessment or is struggling, teachers are guided to reference the "Foundation Builder" to help close the gaps. The Foundation Builder provides the teacher with possible misconceptions and suggestions on how to correct them. The Foundation Builder focuses on students thinking about the strategies used and talking about how they solve problems.

Each "Explore" lesson plan includes instructional supports for teachers to use based on their observations of students as they are working. Explores provide teacher guidance on how to scaffold next steps or instruction based on student needs. The materials also include questions that allow for a variety of strategies for finding the correct answer. Some questions include, "How did you solve this problem?" "Is there another way to solve the problem?" "What strategy is your favorite?" and "What was hard about solving this problem?" Students take assessments at the end of every scope to measure their knowledge of the content that has been taught. Materials guide teachers to use the results of the assessments to determine whether students need interventions or acceleration.

The diagnostic tools yield some meaningful information for teachers to use when planning instruction and differentiation. Benchmark Assessments include an answer key and blueprint for teachers to determine a students' understanding of certain topics. The answer key provides teachers with the answers to each question and which TEKS each question is assessing. The blueprint document lists the topic of each question, the standard each question assesses, and the correct answer for each question.

Each scope has an "Evaluate" section. This section includes three diagnostic tools for teachers to use during the scope to assess students' knowledge of the content being covered in the scope. The Skills Quiz is a short, standards-based assessment to determine students' ability to compute efficiently and accurately. Teachers use an answer key to grade each student's responses to determine if the student has any learning gaps on skills in the scope. The answer key only provides teachers with correct answers. The Observation Checklist is a list of standard breakouts and where they are found in each Explore. Teachers use this checklist to record anecdotal notes throughout the scope. The Show-and-Tell Assessment is a quick assessment with a rubric. It can be administered individually or in small groups using teacher prompts and manipulatives. Teachers use the rubric to assess students' knowledge of each standard taught in the scope. This rubric provides teachers with information about what standard each question assesses so that they can determine specific skills on which students may need intervention.

Based on the results of these three assessments, teachers determine if students meet grade-level expectations, need small group intervention, or can move onto Acceleration activities.

The “New Teacher Navigation Guide” states that materials include “a robust student data system that allows you to group and organize students based on areas of content mastery, re-teaching needs, quantile scores, and response to individual questions.” While the guide provides information on the data analysis tools that teachers can use after administering the diagnostic assessments, material reviewers do not have access to seeing what this would look like for a teacher and therefore cannot review this component.

The materials provide a variety of resources and teacher guidance on how to leverage different activities to respond to student data. The materials provide teachers with a variety of suggestions and activities to use to address the results of student assessments. Each scope has an “Intervention and Acceleration” tab, which includes lesson plans and activities based on student performance. The Intervention section of each scope contains supplemental aids and small-group intervention activities specific to the scope. The Acceleration section of each scope contains extension activities for students who have demonstrated mastery of the content being taught in the scope.

As students move throughout the scope, they complete a “Show What You Know” activity after each Explore, which provides the teacher with a quick assessment to measure student understanding of a concept. Based on these results, teachers have guidance on planning and implementing activities for students moving forward. If students are demonstrating an understanding of the concepts, the teacher has the option to allow them to participate in “Fluency Builder” games, digital interactive practice, game-based activities, problem-based task activities, or “Math Stories” during center time. If students are demonstrating a lack of understanding within a concept, the teacher is provided with small group instruction lesson plans to use in order to support students in closing their gaps.

The materials provide some guidance for administrators to support teachers in analyzing and responding to data. The New Teacher Navigation Guide provides information about data analysis; it suggests using quantile information in order to analyze data for students based on the results of their pre-, mid-, or post-assessments. Administrators are provided their own Administrative Portal in order to analyze data and guide teachers with designing instruction in response to the data. Information on how to support data analysis is not provided to administrators. Materials reviewers do not have access to an example of student data based on information gathered from a diagnostic assessment.

Benchmark Assessments provide teachers with meaningful data that can be used to inform instruction in the classroom. The intent of each assessment is to evaluate students’ progress on standards they have already learned. When students submit their answers online, the teacher receives data, which includes standard-specific performance and a quantile measure. Quantile measures can be used to determine a student’s mathematical performance level, assess what content the child is ready for, and track student growth over time. This data can be analyzed for

individual students, classes, and schoolwide. While this data is available, there is no guidance for administrators in supporting data analysis and planning future instruction.

November  
2020

# Accelerate Learning Grade 1

**4.3** Materials include frequent, integrated formative assessment opportunities.

- Materials include routine and systematic progress monitoring opportunities that accurately measure and track student progress.
- Frequency of progress monitoring is appropriate for the age and content skill.

## Meets 2/2

The materials include routine and systematic progress monitoring opportunities that accurately measure and track student progress. They include progress monitoring that is appropriate in frequency for the age and content skill of students in first grade. Formal diagnostic assessments are conducted three times a year; they are of an appropriate length and include question types that are appropriate for students at this age. Informal assessments included throughout the materials provide teachers the opportunity to observe and record notes based on student growth and progress. Age-appropriate activities enable students to demonstrate learning through games, discussions, “Math Chats,” interactive games, and show-and-tell tasks. Progress monitoring occurs frequently enough to support the teacher in making observations to guide instruction based on student needs.

Evidence includes but is not limited to:

The materials include routine and systematic progress monitoring opportunities that accurately measure and track student progress. Benchmark tests are administered at the beginning, middle, and end of the year. These tests consist of 19 to 20 multiple-choice and drawing questions. Materials provide teacher guidance on when to administer assessments in the “Lesson Plan Guides” as well as in the “Scope Overview.” Each scope provides an “Exit Ticket” for each “Explore” task and an observation checklist that helps the teacher evaluate students as they work. These Exit Tickets are embedded after students complete the Explore activities and can be used to monitor progress. The observation checklists for teachers include a breakdown of the standards taught in the scope, the Explore activities teachers can use to observe the skills, and a section for anecdotal notes. The materials also include formal progress-monitoring assessments that accurately measure and track student progress. Each scope has a “Skills Quiz” and a “Show-and-Tell” assessment. These assessments track whether students are able to apply skills learned in the scope to different situations. The Skills Quiz is a short, standards-based



assessment to determine the students' ability to compute efficiently and accurately. According to the lesson planning guides, students complete the Skills Quiz at the end of the scope.

The frequency of progress monitoring is appropriate for the age and content skill. Students take formal diagnostic tests three times a year—at the beginning of the year, in the middle of the year, and at the end of the year. The frequency of these assessments enables teachers to identify students who are not demonstrating progress in specific TEKS or concepts. The formal diagnostic assessments are longer than regular assessments, but they are still appropriate for the age of the students. Students are informally assessed daily through the use of Exit Tickets and “Show What You Know” activities. According to the lesson planning guides, teachers should use Exit Tickets and Show What You Know activities after each Explore activity to assess student learning. Teachers use data from these informal assessments to provide students with “Intervention” or “Acceleration” activities. Exit Tickets are administered at the end of each Explore lesson for teachers to assess students' understanding of the content taught in the lesson. Teachers can also assess students through the Show-and-Tell evaluation, where students provide information on the current scope by completing tasks as prompted by the teacher. Teachers record their responses and use an interview rubric to score the student. Students are able to show what they know using a variety of questioning formats, including multiple-choice, short answer, and pictures to show mastery in the Show What You Know section. Intervention and Acceleration activities ensure that students are mastering the skill and have activities for enrichment.

November  
2020

# Accelerate Learning Grade 1

**5.1** Materials include guidance, scaffolds, supports, and extensions that maximize student learning potential.

- Materials provide recommended targeted instruction and activities for students who struggle to master content.
- Materials provide recommended targeted instruction and activities for students who have mastered content.
- Materials provide additional enrichment activities for all levels of learners.

## Meets 2/2

The materials provide guidance and support that helps teachers meet the diverse learning needs of all students. The “Engage” portion of each unit houses material that serves as a prerequisite to the topic. There are various opportunities for mastery at all levels; materials keep engagement high and take learning to the next level through project-based learning and student-generated work. Each scope provides targeted instruction resources that support scaffolding, additional guidance, and enrichment opportunities. For students who struggle to master the content, there are recommended instructional supports and instructional aids throughout the unit. Each scope has an “Acceleration” section, which includes activities to engage students who have already mastered the content and are ready to apply it in a different way; this is done by extending learning through real-world connections. Additionally, the materials provide enrichment activities for all levels of learning and multiple modalities through “Problem-Based Tasks,” “Interactive Practice,” “Math Stories,” “Fluency Builder” games, and “Life Connections.”

Evidence includes but is not limited to:

The “Teacher Toolbox” includes interventions for teachers to address various developmental areas for students. These areas include adaptive development, cognitive development, communication development, physical development, and social and emotional development. Within each category, there are example behaviors and strategies to help teachers support students with those specific behaviors. Within each scope, materials provide teachers with content supports, giving insights on background knowledge and what students have learned about the concept in previous grade levels, misconceptions and obstacles that the students may have or encounter during the scope, important terms to know, and what the skill will look

like in the current grade level as well as in future grade levels. Interventions can be found within every scope. Small group instructional lessons either work on the skill that is being learned in the current scope or practice a skill that was previously learned in a different scope. Intervention lessons include hands-on activities and are chunked into four parts. Each part gives the teacher time to assess students and address misconceptions before moving on to the next part.

Before beginning each unit, the teacher uses an “Assessing Prior Knowledge” activity to identify any learning gaps that may be present in the class. In the “Addition and Subtraction Strategies” scope, students demonstrate their prior knowledge of strategies they use to solve addition and subtraction word problems. The teacher uses “Problem Cards,” which illustrate different addition and subtraction questions that the students must solve. Students rotate around the room independently and use a handout to show their work for each problem. The handout requires students to draw a picture to show how to solve the problem and write a number sentence to match the picture. After students complete each problem, the teacher facilitates a discussion about the Problem Cards and the strategies the students used to solve them. If the students struggle to complete this task, the program states that teachers should use the “Foundation Builder” to fill in gaps in prior knowledge.

Each scope provides a variety of opportunities for formative assessment to measure student progress and adjust instruction accordingly. Pre-assessments are included during the “Engage” portion of each scope to provide information to teachers on how to fill in gaps in student background knowledge and adjust learning for those who have already mastered a concept. Observation checklists are included during the “Evaluate” portion of each scope. Teachers write anecdotal notes on student performance so that further learning and small group instruction can be adjusted for students who have mastered the concepts. A “Skills Quiz” is included within each scope to test student knowledge on the current skills. Teachers use this information to adjust further instruction through small groups and problem-based learning for students who have mastered the concept.

Activities for students who have mastered the content are evident in the instructional materials. Based on the “Scope Overview,” students who master the Evaluate portion will progress to the Acceleration portion of the instructional materials. The Acceleration section is included in each scope; students apply their learning to tasks using videos and word problems. Real-world opportunities relate the students’ current learning to processes they will need as adults. In addition, materials include recommendations for teacher-student dialogue and provide sample questions for teachers to ask regarding solution strategies. The “Elaborate” component of the materials is designed to provide ready-made activities that students can engage in during stations or rotations. As students engage in these activities, the teacher can then pull small groups of students to work with students who have mastered the content and are ready for further projects or activities.

The materials provide additional enrichment activities for all levels of learners; there is a multitude of different opportunities to explore concepts. Students apply their knowledge to

real-world tasks through project-based learning. Photos of different objects and celebrations aid students in understanding, relating to, and connecting to their learning. Throughout the materials, the Elaborate section provides enrichment activities such as Fluency Builders, Problem-Based Tasks, Life Connections, Math Stories, and Interactive Practice for all levels of learners. Career/Life Connections, for instance, use videos to bring STEM careers and everyday activities to life through math concepts. Digital games address skills using technology. Math Stories allow for students to practice skills and concepts with embedded literature. Problem-Based Tasks give students the opportunity to practice new skills through problem-solving. In Fluency Builder games, students practice new skills with a partner in a game format. In each scope, picture vocabulary provides a visual alongside the vocabulary word. Spiraled reviews are included in every scope to review previous or current grade-level content based on the focal points set for each grade level. As students engage with content virtually, they use provided virtual manipulatives such as linking cubes, rekenreks, geoboards, two-color counters, and clocks.

The materials include a variety of activities that allow students to apply their learning in different ways. This allows students of all learning styles and capabilities to access the material. In the “Compose and Decompose Numbers to 120” scope, teachers use a Life Connections activity to introduce students to careers in everyday life that highlight the mathematical concept being taught in the classroom. This activity highlights the career of a grocery bagger. Students watch a video clip about the career and discuss how grocery baggers use math in their job. Next, the class is divided into groups of four; groups receive linking cubes and resealable bags. The linking cubes represent groceries, and the bags represent reusable shopping bags. Students bag their groceries by placing only 10 items in the grocery bag at a time. Once the bag is full, students seal the bag and set it aside. Once all of their groceries are bagged, students count the number of groceries they have while thinking about the most efficient way to count the groceries. In the “Money” scope, students participate in a problem-based task called “What’s in the Piggy Bank?” In this activity, the teacher explains that the school needs to save up coins for a school fundraiser. Each group is in charge of counting up the coins each day to see if the school meets its daily goal. Students use their handout to decide which coins can make up a given value and draw the coins to represent their answer. The handout has piggy banks with 60 cents, 35 cents, and 14 cents. Students discuss which coins to use and why the coins they chose represent the given amount.

November  
2020

# Accelerate Learning Grade 1

**5.2** Materials provide a variety of instructional methods that appeal to a variety of learning interests and needs.

- Materials include a variety of instructional approaches to engage students in mastery of the content.
- Materials support developmentally appropriate instructional strategies.
- Materials support flexible grouping (e.g., whole, small, individual).
- Materials support multiple types of practices (e.g., guided, independent, collaborative) and provide guidance and structures to achieve effective implementation.

## Meets 2/2

The materials provide a variety of instructional methods that appeal to a variety of learning interests and needs. Students are engaged in mastery of the content through the use of concrete objects, pictorial representations, abstract representations, exploration activities, partner games, real-world applications, connections to literature, and virtual games and manipulatives. The “Explore” lessons are designed so that students practice new content in multiple ways, such as through using manipulatives, working with a partner or in a group, or completing a task individually. The materials use developmentally appropriate activities such as picture vocabulary, anchor charts, and teacher modeling. The materials support developmentally appropriate instructional strategies, such as starting with concrete objects and moving to pictorial and abstract representations, engaging students in exploration, and giving students the opportunity to work in small groups. The materials also support flexible grouping and multiple types of practices; students have multiple opportunities to complete activities as a whole group, in small groups, with partners, or independently.

Evidence includes but is not limited to:

The materials incorporate a variety of different instructional approaches throughout every scope. Each scope begins with a “Hook” activity, which engages and motivates students. It also sets the purpose for learning the new content in the scope. Before teaching the corresponding Explore activities, teachers use the “Pre-Explore” lesson from the Hook to engage the students in the new content in a hands-on way. After teaching all of the Explore lessons, teachers use the “Post-Explore” activity in the Hook to revisit the activity and solve the original problem with

the new skill. An example of the different instructional approaches used can be found in the scope focused on length. The Hook activity provides students with concrete measuring materials in order to measure the length of a tower they have created. Students can use informal measuring tools during this activity in order to gain an understanding of the measuring process. The explore activities provide students with string, linking cubes, paper clips, chenille stems, centimeter cubes, inch tiles, and Cuisenaire rods to allow students to gain content knowledge through manipulation of concrete objects in the way of informal tools to measure length. After teaching the Explore activities, the teachers use the Post-Explore activity to revisit the question. Students color tiles to measure a picture of an object on a piece of paper.

The Explore lessons are designed so that students can practice new content in multiple ways. The Explore activities are all teacher-facilitated; students work in partners or groups, often using manipulatives or other instructional supports to solve a problem. Lesson plans list necessary manipulatives, reproducibles, and visual aids for each activity. For example, in the “Personal Financial Literacy” scope, Explore Lesson 2 incorporates whole-group, partner work, and independent work. The teacher begins the lesson by reading a scenario about first spending money on things you need and then spending the leftover money on wants. First, students use a handout to write the definition of *wants* and *needs* in their own words and list some items that they would need for a camping trip. Next, in groups of 3–4, students sort wants and needs picture cards and discuss why each picture is either a want or a need. Finally, students finish the activity independently by completing an “Exit Ticket” to demonstrate their knowledge of wants and needs.

The materials support developmentally appropriate strategies. There is clear guidance to support teacher understanding of developmentally-appropriate instructional strategies as they guide the students through the “5E+IA” process. The “Scope Overview,” found on the “Home” tab, displays a flowchart of how the 5E+IA portions work together to ensure all learners are supported. Also, on the Home tab of each scope, “Student Expectations” and “Key Concepts” provide an overview of the learning expectations. “Content Support” provided for each scope lists information such as background knowledge, misconceptions, obstacles, and strategies to support the teacher in delivering instruction. “Vertical Alignment” provides information to the teacher about the logical progression of the TEKS and how concepts are built upon for the next grade level. “What Should Students Be Doing?” found in the “TEKS Unwrapped” section ensures students are progressing appropriately. Each scope also contains step-by-step instructions for teacher modeling. Across the instructional materials, teachers find modeling and sample think-aloud questions, with sample student responses noted in red. For example, in the “Add and Subtract Within 20” scope, teachers ask the question “What is happening in this problem? How do you know?” while students use linking cubes to represent what is happening in the problem. The “Picture Vocabulary” section, provided for each topic, provides added language support; it contains image or pictorial support for new academic language. “Foundation Builder” lessons are used at the teacher’s discretion before beginning a new unit. Teachers use this lesson plan if there are noticeable learning gaps after assessing prior knowledge. In these activities, teachers model important skills necessary for the upcoming scope while also giving students time to problem solve on their own. Students then begin the scope in the “Engage” phase; the

teacher uses this component to increase student engagement through exploration and open-ended questions. Once student engagement has been obtained, the teacher moves into the Explore component, which gives students the opportunity to build their knowledge through hands-on activities that promote understanding of new concepts. In the “Explain” tab, each scope has a slideshow with picture vocabulary and anchor chart examples. Each Explore lesson plan includes teacher support for students struggling to master the material and ELPS strategies.

November  
2020

# Accelerate Learning Grade 1

**5.3** Materials include supports for English Learners (EL) to meet grade-level learning expectations.

- Materials must include accommodations for linguistics (communicated, sequenced, and scaffolded) commensurate with various levels of English language proficiency.
- Materials provide scaffolds for English Learners.
- Materials encourage strategic use of students' first language as a means to develop linguistic, affective, cognitive, and academic skills in English (e.g., to enhance vocabulary development).

## Partially Meets 1/2

Within the materials, each Explore activity has ELPS strategies for teachers to use to support students in that lesson. However, these strategies are general and do not provide support for varying levels of English language proficiency. In addition to the ELPS strategies, each scope has a "Picture Vocabulary" slideshow, which includes a picture and definition of content-specific words for the scope. Instruction is sequenced in a way that supports all learners and allows for repetition. Students use discourse and manipulatives in each Explore lesson to learn new content. However, there is limited instruction on how to further scaffold the materials for English Learners (ELs). Small group instruction focuses on reteaching content taught in the Explore lessons through hands-on experiences with manipulatives. These lessons do not focus primarily on language development. Most resources in each scope are translated into Spanish; however, there is no guidance for teachers on how to use these materials with ELs. There is also no evidence of a teacher guide that supports teachers on the use of effective strategies specific to ELs.

Evidence includes but is not limited to:

The materials partially include accommodations for linguistics commensurate with various levels of English language proficiency. The materials are sequenced in a way that supports students' understanding of new academic vocabulary in an authentic manner. For example, the program supports the development of academic vocabulary for all students by introducing new terms within the context of an activity. This allows students to connect the term to a physical object or process and supports the retention of academic vocabulary. An extension of this is the Picture Vocabulary element, which can be used to support the development of academic



vocabulary with visual supports. Materials provide sentence frames and introduce academic words that are more commonly used within the Explore activity. Some Explore activities recommend using a total physical response strategy in order to support student learning of new words and a new language. The teacher supports ELs by explicitly pre-teaching comparative and superlative adjective patterns in English, such as *-er* and *-est*, when comparing two objects. This is beneficial in the “Length” scope, where students compare the length of objects using words such as *longer*, *shorter*, *longest*, and *shortest*. This is beneficial to students at the intermediate and advanced levels of English language acquisition who are reading to introduce comparative language into their vocabulary.

While the materials provide different levels of support throughout the scopes, they provide one example of support for each Explore activity; therefore, the support is not directly differentiated based on the level of support ELs need. All EL students receive the same support regardless of where they are in their progress of language acquisition.

The materials partially provide scaffolds for ELs. There is little evidence of research-based scaffolds in the materials to provide support to ELs. The only evidence of support is the ELPS strategies listed at the bottom of each Explore lesson. These strategies list the ELPS standards taught in the lesson and how to support students during that specific lesson. Materials also do not explicitly address scaffolding for ELs; however, the instructional materials do include whole group, small group, and flexible grouping opportunities for the entire class. Although direct resources are not noted for scaffolding intentional and natural lessons, the “Foundation Builder” of each scope provides the teacher with words that often have a double meaning and can be a roadblock to understanding the mathematical meaning. The words can be found at the bottom of the facilitation instructions.

The Explore lessons are written in a way that makes scaffolding intentional and natural. However, these scaffolds are intended for the whole class, and additional supports to further scaffold for ELs are not listed. However, small group intervention activities include rich vocabulary conversations and hands-on manipulation of materials. For example, in the scope related to comparing and ordering numbers to 120, students receive linking cubes, circle counters, and other hands-on manipulatives to hold and manipulate as they create given numbers. Students are also instructed to use mathematical vocabulary, such as *greater than*, *less than*, *equal to*, *digit*, *tens*, and *ones*. Students use the manipulatives as they discuss their observations and processes to support English language acquisition. Materials provide Spanish versions of all student materials and resources for students who need support in their native language. While there is no specific assistance for teachers when using the Spanish version with students in their class, the Spanish version of the materials is identical to the English version, so teachers will be able to understand the questions that are being asked in each activity, journal, or exit ticket.

Materials partially encourage strategic use of students’ first language as a means to develop linguistic, affective, cognitive, and academic skills in English. Within the individual Foundation Builder activities for word meaning, aside from the supports and suggestions made in the

individual Explore activities and picture vocabulary, no evidence supports the use of students' first language as the foundation of developing skills in English. In the Foundation Builder activities, the materials reference multiple-meaning words in English, such as the word *face*, and words that sound the same but are spelled differently and mean different things, such as *ate* and *eight*. However, the materials do not reference words from a student's native language that can be connected to new vocabulary words in English. Each Explore activity contains ELPS strategies at the bottom of the facilitation points to guide teachers in supporting ELs during the activity. Teachers can use the ELPS strategies, along with the sentence stems that the instructional materials provide, to support students with strategic use of their first language. Some student materials in the program are available in Spanish and could be used as support for students who speak Spanish; however, outside of these resources, there is no other evidence noted on supporting students in their native language.

November  
2020

# Accelerate Learning Grade 1

**6.1** Materials include year-long plans with practice and review opportunities that support instruction.

- Materials include a cohesive, year-long plan to build students' mathematical concept development and consider how to vertically align instruction that builds year to year.
- Materials provide review and practice of mathematical knowledge and skills throughout the span of the curriculum.

## Meets 2/2

The materials include year-long plans with practice and review opportunities that support instruction. The "Scope and Sequence" outlines how to implement the materials based on a 36-week school year. The Scope and Sequence also dedicates the final two weeks of school to reviewing focal skills taught during the school year. The content plan is cohesively designed to build upon students' current level of understanding with clear connections between lessons and across grade levels. The activities in each scope build upon each other and provide students with skills to apply new knowledge to more complex tasks. The materials include a "Vertical Alignment Chart" to show how content builds in preceding and subsequent grades. The "Content Support" section also provides teachers with an explanation of how the content builds in subsequent grade levels. The materials provide students with opportunities to review and practice throughout the program. Each scope contains a "Spiral Review" activity designed to provide students with opportunities to practice previously learned skills. The "Foundation Builder" reviews a vertically-aligned skill before beginning the remaining scope activities.

Evidence includes but is not limited to:

The materials include a cohesive, year-long plan to build students' concept development and consider how to vertically align instruction that builds year to year. They include a year-long plan of content delivery through the Scope and Sequence provided for each grade level. The Scope and Sequence includes 36 instructional weeks and contains all scopes that are included in the materials as well as one week devoted to establishing classroom procedures and one week at the end of the year devoted to reviewing focal areas for the grade level. Within the Scope and Sequence, the materials provide a pacing structure that follows a logical sequence and allows time for depth and focus. The Scope and Sequence provides one or two weeks of instruction for every scope within the materials. The amount of time spent on each scope is

based on whether or not the scope is a focal point and whether or not it is a concept that is necessary for success with future concepts. Each scope also provides a week for the “Show-and-Tell” rapid assessment for that scope. This allows teachers to provide depth to each scope and enables students to have time to master the concepts within the scope.

The materials include Vertical Alignment Charts to help teachers see how the content builds from year to year. These charts, located in the “Teacher Toolbox,” include charts for kindergarten through third grade and fourth through sixth grade. The document provides teachers with a description of how the TEKS are organized and an explanation of each part of the mathematics TEKS. The Content Support section in each scope also describes how each skill will be extended in future grade levels.

The materials provide review and practice of mathematical knowledge and skills throughout the span of the curriculum. The instructional materials build upon previously taught content from both prior grade levels as well as previously taught units. Each scope within the materials contains the same opportunities for review. Every scope includes an “Assessing Prior Knowledge” activity, a Foundation Builder, a Spiral Review activity, and time built into the day for “Daily Numeracy” review activities. Each lesson begins with the Assessing Prior Knowledge activity; this is a brief probing activity designed to connect learning from previous grade levels with new learning to gauge students’ prior knowledge before engaging in the inquiry process. The Foundation Builder is designed to review the vertically aligned skill as needed before students complete the remaining scope activities. Spiral Review, found in the “Elaborate” portion of the instructional materials, suggests previous skills that students can continue to practice and review. Teachers have the option to spiral back to any skill they prefer. Daily Numeracy activities, included for each grade level, provide opportunities for students to mentally practice a variety of skills throughout the year. Each scope also contains elements that spiral back to previously learned content.

November  
2020

# Accelerate Learning Grade 1

## 6.2 Materials include implementation support for teachers and administrators.

- Materials are accompanied by a TEKS-aligned scope and sequence outlining the essential knowledge and skills that are taught in the program, the order in which they are presented, and how knowledge and skills build and connect across grade levels.
- Materials include supports to help teachers implement the materials as intended.
- Materials include resources and guidance to help administrators support teachers in implementing the materials as intended.
- Materials include a school years' worth of math instruction, including realistic pacing guidance and routines.

## Meets 2/2

The materials include implementation support for teachers; administrators have access to the same planning documents as teachers. The “Scope and Sequence” document is aligned to the TEKS and outlines which essential skills are taught over the course of a school year; it also shows the order in which essential skills are presented. The “Vertical Alignment Chart” displays TEKS for kindergarten through third grade; it provides teachers with an explanation of the layout of the mathematics TEKS and shows how standards build upon each other. “Lesson Planning Guides” support teachers in using the program and materials as intended; they provide teachers with support in pacing lessons across a week and which lessons to teach on specific days. There are two lesson planning guides: one for scopes with one to three “Explores” and one for scopes with three to five Explores. The “Content Support” section provides teachers with an explanation of best practices for the current scope. Teachers find guidance on how to teach specific skills and what students should be able to do by the end of the scope to show mastery. Each individual lesson has an objective for the lesson, a materials list, preparation instructions, and procedure and facilitation points. The materials include lessons and activities for a full year of instruction and additional activities to use to extend learning or provide intervention for students. The materials include realistic pacing guidance at the unit and lesson level.

Evidence includes but is not limited to:

Materials are accompanied by a TEKS-aligned Scope and Sequence outlining the essential knowledge and skills that are taught in the program, the order in which they are presented, and

how knowledge and skills build and connect across grade levels. There is a “Scope List” and a Scope and Sequence document for teachers to follow. The Scope List shows the scope name, the TEKS covered in the scope, and the suggested pacing for the scope. The Scope and Sequence shows teachers how to pace the program throughout the course of the school year and is written based on a 36-week school year. Teachers learn which essential knowledge and skills are taught in each unit by reading the title of the scope and the TEKS covered on the Scope and Sequence document. Essential skills taught in each scope are described within the title; the document details the order in which the essential skills are presented. Teachers can view the pacing of each scope by seeing in which week new concepts are introduced.

The Vertical Alignment and Content Support documents for each scope provide information on prior knowledge and what students are expected to be able to do in future grade levels. Content Support documents also provide information on key concepts within the scope, fundamental questions, misconceptions and obstacles that may come about, terms to know, important information on how to guide students using prior knowledge, and where students are developmentally.

Materials include supports to help teachers implement the materials as intended. Lesson Planning Guides support teachers in using the program to best fit their needs and use the program as intended. The guides include notes on pacing and how to respond to student performance and data. Teachers choose between two guides depending on the number of Explore activities in the current scope. One guide provides pacing suggestions for scopes with one to three Explores and the other for scopes with three to five Explores. These guides provide teachers with pacing for both whole group and small group instruction models; they are based on a 90-minute class period. The whole group plan lists activities to do with the whole class and various assessment and closure activities to complete each day.

At the beginning of each scope, there is a list of materials and a unit overview. Each scope has individual tabs for each logically planned part of the scope that ensures the CRA method is being used. Lessons progress through the “5E” model (“Engage, Explore, Explain, Elaborate, Evaluate”). After the Evaluate portion, materials provide “Intervention” and “Acceleration” lessons to appropriately meet the needs of all students. The Lesson Planning Guide, located in the “Teacher Toolbox,” provides the teacher with an overview of the week. The whole group and small group plans provide the teacher with the content taught each day and remind the teacher to assess and reteach as needed. The materials are designed on a digital platform and allow for work to be assigned to the student. The instructional materials are also available in PDF or printable files that can be downloaded and printed. Teachers can also create editable Google slides for activities such as the academic vocabulary and the Explore student journals.

The materials partially include resources and guidance to help administrators support teachers in implementing the materials as intended. The Teacher Toolbox provides Lesson Planning Guides for teachers and administrators to use as a reference when planning for their students. As teachers collect data and respond in small group interventions, it is noted that their pacing can be affected. The suggested pacing ensures that the CRA method is followed and that

adequate time is spent in the individual scopes. The Scope and Sequence can be used as a tool to ensure that teachers cover all scopes within the 36 weeks of school. Lesson Planning Guides support teachers and administrators to best fit the program to their needs and to use it as intended. They provide notes on pacing and responding to student performance and data. Although this evidence is noted, there is no indication that this is solely meant to support administrators. Administrators have access to the same materials that teachers use to implement the program in their classrooms.

The materials include a school year's worth of math instruction, including realistic pacing guidance and routines. The Scope and Sequence provides the names of each scope within the materials and suggested pacing time of how many weeks should be devoted to each scope. The Scope and Sequence provides suggestions for scopes to teach over the course of 36 weeks; it provides anywhere from one to four weeks at the end of the school year for teachers to review the focal areas with students before they move into the next year of school. The Scope List for each grade level provides more detailed information about the pacing and planning of each scope. This document provides the name of each scope, the specific TEKS that will be covered within the scope, how many Explore activities are included in the scope, and the suggested amount of time that should be spent teaching the scope. The materials provide teacher guidance on how to pace scopes based on how many Explore activities are included within the scope. The suggested lesson plans provide support for a 90-minute math block and reasonable suggestions about how much a teacher can execute, considering the developmental level of the students. The units are connected and allow for depth and focus. The experiences do not skim lightly over focal areas; they support students in spending sustained time developing content and skills in grade-appropriate areas.

November  
2020

# Accelerate Learning Grade 1

**6.3** Materials provide implementation guidance to meet variability in programmatic design and scheduling considerations.

- Materials provide guidance for strategic implementation without disrupting the sequence of content that must be taught in a specific order following a developmental progression.
- Materials are designed in a way that allow LEAs the ability to incorporate the curriculum into district, campus, and teacher programmatic design and scheduling considerations.
- Materials support development of strong relationships between teachers and families.
- Materials specify activities for use at home to support students' learning and development.

## Meets 2/2

The materials provide implementation guidance to meet variability in program design and in scheduling considerations. The “Scope and Sequence” provides guidance on implementation that ensures the sequence of content is taught in an order consistent with the developmental progression of mathematics. Students learn prerequisite skills in earlier scopes before moving on to content with increasing difficulty in later scopes. The Scope and Sequence states that there is flexibility in implementing the scopes. The activities within each scope are sequenced in a way that allows students to begin with foundational skills and work toward a more abstract understanding of the content taught in the scope. The program provides guidance to allow easy implementation in a variety of school designs. Each lesson planning template included in the scope is designed for a 90-minute math block. The “Lesson Planning Guides” (LPGs) provide teachers with guidance on how to implement the materials in a whole group and small group setting.

Evidence includes but is not limited to:

The materials provide guidance for strategic implementation without disrupting the sequence of content that must be taught in a specific order following a developmental progression. The materials are flexible in the sequence of content and learning elements used during



instructional time. The Scope and Sequence can be found in the “Teacher Toolbox”; while the program suggests a scope and sequence to be used, the scopes are modular and can be rearranged to fit the needs of a particular teacher, campus, or district. LPGs provide options; teachers choose which elements they want to implement based on their given instructional time. Within each scope, teachers use the LPGs to plan their instruction for the duration of the scope. The activities in each scope are sequenced in a way that is consistent with the developmental progression of mathematics. Each “Explore” activity builds on the previous Explore activity. The LPGs ensure the sequence of content is taught in an order consistent with the developmental progress of mathematics. By using the organized LPGs, teachers make sure that precursor skills are taught first. LPGs are written based on a 90-minute math block and list each activity that teachers implement for each day of the week. Teachers choose from two different LPGs based on how many Explore activities are in the scope they are teaching—one to three Explores or three to five Explores. Each LPG provides teachers with pacing for both whole and small group instruction.

Materials are designed in a way that allows LEAs to incorporate the curriculum into district, campus, and teacher programmatic design and scheduling considerations. The materials are designed to allow easy implementation into a variety of school designs, without compromising the validity of the materials or the structure of the program. The materials provide a 36-week scope and sequence but stress that the scope and sequence can be implemented in a way that meets specific campus needs. Teachers and campuses can determine how long to spend on each unit and how to use the review units at the end of the year. While the scope and sequence provides a suggestion to LEAs on how to structure the year and how much time to spend on each scope, there is still room for a campus to implement the materials in a way that meets the needs of the students and staff. Additionally, the materials provide lesson planning support to teachers. The lesson planning support documents are split up based on the number of Explore activities within the scope. Within these documents, LEAs are provided with suggestions on how to implement the scope using a 5- to 10-day structure. The materials make suggestions to teachers on how the components can be taught in a way that fits within the time limits of the scope. The materials also provide suggestions and support for teachers to teach the lessons in a way that caters to the needs of the learners within the classroom. Because the materials are online, LEAs have the flexibility to implement the program virtually. The program has recently created a section titled “Virtual Learning.” Therefore, the materials respond to needs that may be occurring in many classrooms around Texas due to COVID-19. They provide the opportunity for teachers to meet the needs of students both virtually and face to face.

November  
2020

# Accelerate Learning Grade 1

**6.4** Materials provide guidance on fostering connections between home and school.

- Materials support development of strong relationships between teachers and families.
- Materials specify activities for use at home to support students' learning and development.

## Meets 2/2

The materials support the development of strong relationships between teachers and families. They also specify activities for use at home to support students' learning and development. The materials include parent letters in both Spanish and English that can be sent home at the beginning of the year; there are also letters sent at the beginning of each scope that provide information on concepts that will be covered throughout the year or throughout the scope. The letters also provide background on the mathematical philosophy of the materials and suggested vocabulary that can support students while they are at home. Students have virtual access to different components of the materials, and parents are able to support their child's growth while at home. The materials also provide a tic-tac-toe board of suggested activities that families can complete during each scope in order to support and grow student understanding of the concepts that are being covered in the classroom.

Evidence includes but is not limited to:

The materials support development of strong relationships between teachers and families. Materials provide an editable parent letter, found in the "Teacher Toolbox," for teachers or administrators to use to share their choice of the program's curriculum. The letter introduces the "5E+IA" model and shares an overview of the program philosophy. The letter also notes that the program is aligned to the TEKS. Parents receive contact information for the school if they have any questions or would like to give feedback on the program. There are also parent letters sent out for each individual scope to provide an overview of the upcoming scope and a choice board to extend learning at home. For example, the "Join and Separate" newsletter introduces parents to the new scope, explains what it is that the student will learn, and advises parents on how they can assist at home. It clearly states vocabulary words and definitions and sometimes provides clipart. The newsletter encourages parents to identify examples of their child's learning in everyday tasks and thanks them for their support. All of these parent letters

are also available in Spanish. The materials specify activities for use at home to support students' learning and development. Each student has his or her own online account. Accounts provide students access to learning resources and assignments given by their teachers. Learning resources include picture vocabulary, virtual manipulatives, interactive practice games, and a visual glossary of math vocabulary. Home support materials are available in English and Spanish.

The materials provide appropriate suggestions and/or resources for home activities that support the curriculum and can be used easily by families. The parent letter provides a parent-friendly breakdown of the standards, a list of vocabulary words used throughout the unit, and a "tic-tac-toe choice board." The choice board includes games and activities that use materials available in most homes and have instructions that are simple for parents and students to understand. For example, in the "Fractions" scope, the parent letter explains that students will be learning to partition two-dimensional shapes into two and four equal parts, describe each partition using words, and explore examples and non-examples of halves and fourths. The letter lists the vocabulary words *partition*, *fair shapes*, *half*, and *fourth* along with their definition. It encourages parents to use these words at home with their children because students are expected to use them during daily "Math Chats." The choice board includes eight different activities parents and students can play at home. One activity is "I Spy," in which families search for real-life examples of fractions. Another game is "Cookie Craze," in which families bake a pan of cookies. While the cookies are baking, families make flashcards that show one half, one fourth, not one half, and not one fourth. After the cookies have cooled, students pick a card and partition their cookie to match what the card denoted.

November  
2020

# Accelerate Learning Grade 1

**6.5** The visual design of student and teacher materials (whether in print or digital) is neither distracting nor chaotic.

- Materials include appropriate use of white space and design that supports and does not distract from student learning.
- Pictures and graphics are supportive of student learning and engagement without being visually distracting.

## Meets 2/2

The visual design of student and teacher materials is not distracting. The materials include appropriate use of white space and design that supports and does not distract from student learning. Student handouts are designed in a way that is easy for students to read; there is enough white space for students to complete their work. The pictures and graphics are supportive of student learning and engagement without being visually distracting. Teacher's guides are designed with clear, designated places for important information. Each scope includes a tab for each component of the "5E+IA" model and a description of each activity. Lesson plans are designed in a way that allows teachers to easily locate important information.

Evidence includes but is not limited to:

The materials include appropriate use of white space and design that supports and does not distract from student learning. The materials are designed in a way that supports student learning. The images are aesthetically pleasing to look at and provide information in a simple yet purposeful format. The student documents within the program include plenty of white space for students to perform tasks and calculations in order to complete their work. Clear images are appealing to students and also support their understanding of the concept. Scopes are easy to identify within the materials; students can easily see where to locate the scopes and components within the scopes when they are working. Virtual manipulatives are colorful, easy to locate, and user friendly to help support student understanding of concepts.

Teacher guides are designed with clear, designated places for important information. When logging into the system, the components of the materials are easily found along the top in various tabs. The scopes are easy to identify; teachers see the specific content being covered, the grade level it is designed for, the TEKS that are aligned to the scope, and the domain it

aligns to within the standards. Colorful sidebars give the teacher additional support and resources such as *STEMscopes* streaming, the “Teacher Toolbox,” visual glossaries, benchmark assessments, and professional development videos and support. Within the components of the Toolbox, tabs and sidebars are clearly defined and labeled to provide teachers information they need to support student learning. Colors are visually appealing and are not distracting; images do not take away from the information being provided to teachers. Information in the materials and different components are easy to locate and are clearly stated. Each scope is labeled with the topic, standard, and strand. The toolbar on the left-hand side of the screen can be used to search by keyword or filter scopes by grade level and/or strand.

The materials adhere to user interface design guidelines. Teachers are able to view the system status by referring to lesson plans that are added to their lesson planner; teachers can view which digital assignments have been assigned to each student. The materials in the program match the real world and are easily navigable by users. Teachers have control and freedom in the program and are able to take steps backward if they make an error. The materials in the program are consistent across grade levels. The materials provide error prevention by providing teachers with an explanation of the intention of use for each element in the program. The way the program is designed allows for recognition rather than recall. Consistency in each scope allows teachers to become familiar with each element in the program. The pictures and graphics included in the program are visually appealing with a minimalist aesthetic. The materials provide teachers with help and support. Teachers utilize the Teacher Toolbox for lesson planning guidance and descriptions on how each element in the program should be used.

Pictures and graphics are supportive of student learning and engagement without being visually distracting. The materials include pictures that are easily identifiable by students and support student learning. Images are included for students in order to support the task they are asked to complete. The images match what the problem or question is related to, are engaging for students, and are easy to see. The digital format of the materials includes colorful images that are visually appealing to students and easy to relate to the mathematics problems. In the printed materials, the images are black and white; they are still easy to understand and decipher. Images are the appropriate size and are not too small or too large. For students in first grade who have not developed adequate reading skills, images support learning and understanding. Fonts, graphs, and charts are clear and easy to read within the student materials. Manipulative images are provided when needed; they are not distracting, difficult to use, or difficult to understand. Student materials use white space appropriately.

November  
2020

# Accelerate Learning Grade 1

**6.6** If present, technology or online components included are appropriate for grade level students and provide support for learning.

- Technology, if present, aligns to the curriculum’s scope and approach to mathematics skill progression.
- Technology, if present, supports and enhances student learning as appropriate, as opposed to distracting from it, and includes appropriate teacher guidance.

## Not Scored

The technology and online components included in the program are appropriate for grade-level students and provide support for learning. Most scopes have virtual manipulatives available for student use. Teachers are prompted to go digital in the lesson plans if there are virtual manipulatives available to assign to students. The virtual manipulatives align to the curriculum and support student learning. Each scope has “Interactive Practice” activities; these are games aligned to what students are learning, which provide them with extra practice with the skills that are being covered in the scope. Teachers also have the option to assign certain activities for students to complete virtually. This option replaces the use of paper-and-pencil activities. Materials provide teachers with guidance and support in using virtual resources throughout the materials.

Evidence includes but is not limited to:

The technology aligns to the curriculum’s scope and approach to mathematics skill progression. The materials contain technological components that enhance learning for students. Students interact digitally with tasks through virtual manipulatives, interactive games, and digital journals or assignments. As students engage in “Explore” activities, they have the option to use the virtual manipulatives that align with the manipulatives that are offered in the classroom. In the “Elaborate” component of each scope, interactive games enhance students’ knowledge of the concepts and provide a way to practice in a virtual format. These games are available to play through the materials’ website and app; they support the materials’ progression of math content and skills introduction and practice.

Many elements within the materials can be completed digitally. There is a PDF version of the materials that teachers can print, but students can also complete activities virtually. Students

can digitally complete the “Show What You Know” activities from the “Explain” component of each scope. They can also digitally complete the “Problem-Based Task,” the “Math Story,” and the “Spiraled Review” from the “Elaborate” component from each scope. Skills quizzes and benchmark assessments can be assigned and completed virtually. When students take these assessments virtually and submit their work, they are provided with data and scores.

Due to COVID-19, materials have added additional components to support digital learning. Each grade level now includes virtual learning. Within the virtual learning components, students can interact with each scope. Students are able to watch videos that explain new concepts and model learning. Students are also able to use virtual manipulatives in order to support their conceptual understanding as well as virtually complete Explore activities.

Technology supports and enhances student learning, as opposed to distracting from it, and includes appropriate teacher guidance. The technology promotes and enhances student participation in the materials. Many of the student elements in the program can be completed digitally as an alternative to the paper-and-pencil version provided within the lesson plan. Assessments like the benchmarks can also be taken digitally. When teachers select this option, they are provided with whole-class data after the assessments are submitted and scored. The materials give teachers appropriate and sufficient guidance on how to use technology with students and how to support students with technology use. The procedure and facilitation instructions in the Explore lessons provide teachers guidance on how to use the virtual manipulatives during the activities. Virtual manipulatives are found under the Explore tab of each scope and can be digitally assigned to each student. Teachers know when they have the option to use the virtual manipulatives: Materials prompt them to “Go Digital” in the “Preparation” instructions of the Explore lesson plans. The instructions state that students can explore or present their solutions using virtual manipulatives during the activity. Lesson planning guides provide teachers with guidance on when to use the Interactive Practice games. For example, in the “Small Group Plan” guide, teachers use the Interactive Practice games as a math station.