November 2020

Accelerate Learning 3-5 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 %
Grade 3	100%	100%	N/A	100%
Grade 4	100%	100%	N/A	100%
Grade 5	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 supports for English Learners (ELs); the accommodations are not clearly scaffolded for various 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 5

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

Students' content knowledge is strategically and systematically developed throughout the school year. Instruction is intentionally aligned to both the grade-level primary focal areas and the concepts outlined in the TEKS. Overall, students receive enough practice opportunities to master the content.

Evidence includes but is not limited to:

Teachers have access to a "Scope and Sequence" planning guide for the academic year; this resource describes instructional progression over time and is organized by TEKS groups. Instructional materials are organized into "Scopes," and these scopes directly align to the grade-level primary focal areas; Scope titles include "Multiply Decimals," "Volume," and "Represent and Interpret Data," among others. Each scope has an "Essentials" section that describes in detail the grade-level TEKS that are covered within the scope. The "Home" section includes information about how this individual scope fits into the vertical TEKS alignment. The "Content Support" tab includes explanations of the TEKS, background knowledge, misconceptions, and obstacles to student learning of the concepts.

Most lessons include materials and tasks that reinforce the primary focal skills for fifth grade. For example, in the "Multiply Decimals" scope, students practice using multiple representations, including base-ten blocks, number lines, money, and digital scales. In the "Volume" scope, students use centimeter cubes to understand the volume of a three-dimensional figure before solving a word problem with their own representation or drawing.

Throughout the year, questions and tasks build in rigor to meet the full intent of the primary focal areas. For example, in the "Compare and Order Decimals" scope, students use

manipulatives to practice decimal concepts and then represent decimals with drawings. Once they are ready, students advance to using algorithms for word problems. In a later scope, "Represent and Interpret Data," students analyze different data sources like tables, stem-and-leaf plots, and dot plots. During practice, students apply concepts from previous scopes. They continue working with data sources into the following two scopes: "Income, Taxes, and Payment Methods" and "Balancing a Budget."

Practice opportunities are also varied, numerous, and aligned to the TEKS; tasks include game stations, practice problems, digital games, virtual manipulatives, interactive investigations, math-based stories, and problem-based tasks. For example, during the lessons in the "Unit Conversions" scope, students use different methods of measuring and recording. In an "Explore" lesson, students work in small groups to determine the customary unit conversions. During "Math Story—Mysteries of Our Moon," students read a passage about the moon and answer questions about the reading.

Additionally, each scope includes "STAAR-Based Assessments," "Skills Quizzes," and "Decide and Defend" tasks to determine student mastery of the content. The STAAR-Based Assessments are multiple-choice, standards-based assessments. The Skills Quizzes assess a student's ability to compute efficiently and accurately in a short, standards-based format. Decide and Defend tasks ask students to answer open-ended questions, reason mathematically, and support ideas with evidence.

November 2020

Accelerate Learning Grade 5

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 include a variety of types of models: concrete models and manipulatives, pictorial representations, and abstract representations throughout the year. Teachers also receive the support necessary to understand the CRA continuum and assist students' progression along the continuum.

Evidence includes but is not limited to:

The "Communicate Math" section of the "Teacher Toolbox" guides teachers on how to help students move through the phases of the CRA continuum. For example, the "Representations" document explains math representations and the expectations for students at this grade level. It provides suggestions on how to provide concrete, representational, and abstract models for mathematical concepts. In each scope, the "Intervention" and "Acceleration" tabs provide teachers guidance when intervening with students who are not mastering the content and when extending for students who have mastered the content.

All scopes include manipulatives, pictorial models, abstract models, and concrete models. Varied materials include base-ten blocks, place value disks, money, place value mats, fraction models, number lines, centimeters and unit cubes, XY coordinate boards, and counters.

Each scope begins with the "Engage" portion, where students access prior knowledge. Next is the "Explore" section, where students use manipulatives to learn new concepts. For example, in the "Multiply Decimals" scope, students model equal groups to solve problems. Students relate equal groups to jumps on a number line and repeated addition. Over time, problems progress to scenarios involving decimals. If students need additional support, teachers know to use

money as a more familiar manipulative. In a later scope, students progress to using the algorithm for this type of problem.

The Explore section also includes direct instruction of manipulative usage. For example, in the "Perimeter, Area, and Volume" scope, the teacher directions describe how to use craft sticks and other materials to represent fences. Questions and statements help students use these models to determine length, width, area, and perimeter.

Scopes also include teacher supports meant to help them understand the continuum. The "Content Support" section describes the different stages of student development. It describes how students use concrete models like base-ten blocks, pictorial models like place value disks, and abstract models like place value charts to make connections to numbers. Discussion points for teachers are included.

In the "Place Value and Rounding Decimals" scope, students use place value disks to represent decimals before progressing to a place value mat. They later use a concrete model to represent expanded notation of decimals to the thousandth place. At the end of the lesson, they draw their own decimal model and represent the concept using symbols.

In the Explore section of the "Divide Decimals" scope, students use base-ten blocks and play money to compose repeated groups of decimal numbers. As they begin more complex activities in the "Elaborate" section, they complete tasks using algorithms and pictorial models. Scopes also include teacher supports meant to help them understand the continuum. For example, the Content Support section of this scope describes the different stages of student development. It describes how students use concrete models like base-ten blocks, pictorial models like grids, and abstract models like area models and number lines. Students continue through the CRA continuum, connecting concepts to the abstract algorithm until they master writing equations.

November 2020

Accelerate Learning Grade 5

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 lessons and tasks intentionally connect two or more concepts as appropriate for the grade-level. Students explore relationships and patterns and are also given the opportunity to make connections across content. Teachers have adequate support in helping them understand the concept alignment that guides instructional development.

Evidence includes but is not limited to:

The materials follow the 5E-IA teaching model: *Engage, Explore, Explain, Elaborate, Evaluate, Intervention, and Acceleration*. Each scope begins with an "Engage" section; activities in this section review previously learned concepts and connect them to new learning. For example, in the "Add and Subtract Rational Numbers" scope, students calculate the amount of money remaining after spending. This reviews the fourth grade standard of subtracting decimals. In the "Estimate and Problem-Solve" scope, students match strip diagrams and equations to specific math scenarios, another fourth-grade skill.

In the "Explore" section of each scope, students discuss how mathematical ideas connect to one another. Usually, this happens during "Math Chat." For example, in the "Perimeter, Area, and Volume" scope, students discuss the relationship between perimeter, area, and volume before sharing their observations and learning. Then during the "Elaborate" section of each scope, students recognize math in other contexts through "Career Connections" and "Math Story" activities. For example, in the "Number Patterns" scope, students analyze the many

mathematical combinations at a farmer's market. During the Career Connections of the Perimeter, Area, and Volume scope, students learn how architects use math and its impact on the community. When students get to the "Evaluate" section of each scope, they apply this understanding to tasks that integrate multiple math concepts. In the "Multiplication and Division with Algorithms" scope, students use visual arrays to determine if a number is prime or composite. They also use area models when multiplying a three-digit by two-digit number and use partial quotients for dividing a three-digit number by a two-digit number. In the "Hook" activity of the "Simplify Numerical Expressions" scope, students analyze a cake recipe and apply the order of operations, ensuring they follow the directions correctly. In the "Estimate and Problem-Solve" scope, students again use the order of operations to solve equations and estimate solutions appropriately. The teacher relates simplifying numerical expressions and solving equations to the order of operations.

Many tasks integrate familiar models and strategies from previous units. Lessons connect what has been done in the past to what will be used in the future. For example, in the "Place Value and Rounding" scope, students use base-ten blocks, place value disks, and number lines while learning about the hundredths and thousandths places. Students apply their understanding and extend their knowledge when rounding decimals. In a future scope, they make connections about place value as they discover what happens when you move left-to-right within a number. The "Scope Overview" explains how this knowledge connects to ordering rational numbers in future grade levels. Both students and teachers are made aware of this content progression.

Within each scope, "Content Support" and "TEKS Unwrapped" sections help teachers understand horizontal and vertical alignment. They outline and describe the TEKS in the current scope, the matching TEKS from previous grade levels, and the TEKS that align in the following grade level. TEKS Unwrapped provides definitions of the nouns and verbs in the TEKS, instructional implications, student misconceptions, and vertical alignment. For example, in the "Add and Subtract Fractions" scope, defined words include *fraction*, *denominator*, *unequal*, and *operation*. Students have previous experience adding and subtracting fractions, and they use this knowledge to find common denominators between fractions. Outside of scopes, teachers have access to a "Teacher Toolbox" that includes numerous documents that describe how instruction is connected; these documents include a "Scope List," "Scope and Sequence," and different "Vertical Alignment Charts."

November 2020

Accelerate Learning
Grade 5

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

Instruction is built around quality tasks that address content at the appropriate level of rigor and complexity, as identified in the TEKS. Students are given many opportunities to apply their math ability to new and varied situations. The goal behind each mathematical task is clearly outlined for teachers, and they receive guidance anticipating student responses and facilitating discourse.

Evidence includes but is not limited to:

The “STEMscopes Math New Teacher Navigation Guide” describes how each step of the 5E-IA model increases in rigor: there is a “gradual transition from teacher-led instruction to student-driven learning… [allowing] students to explore context before content, to develop a deep mathematical understanding of the standards.” Each scope begins with an activity to review prior knowledge in the “Engage” section; next, the “Explore” lessons introduce new concepts and summarize additional resources; the “Explain” section includes activities for students to practice and demonstrate understanding of the learning; the “Elaborate” section provides an opportunity for more rigorous tasks to extend learning; and the “Evaluate” section assesses student learning. Additional “Intervention” and “Acceleration” sections provide scaffold and extension activities based on student mastery.

This progression can be seen in the “Multiply Decimals” scope. In the Engage activity, students review 2-digit by 2-digit multiplication word problems. In the Explore section, students recall place value relationships and equal groups to develop rules used for multiplying decimals. During Elaborate and Evaluate activities, students apply their knowledge by completing STAAR-aligned questions, a “Problem-Based Task,” and a “Math Today” research activity.

Scopes include many tasks that are relevant to students and set in real-world contexts. These activities include “Hooks,” Problem-Based Tasks, and Math Today. In the “Volume” scope, the Hook activity involves students looking at a picture of a swimming pool and calculating how much space will need to be filled. Students explore the concept of cubic units by determining how many hats will fit inside boxes with specific measurements. Then, they practice using the volume formula while designing skyscrapers with several floors. Students later explore the relationship between concrete volume models and the algorithm. This task occurs in the context of “MeWOW’s Pet Store,” and students calculate the volume of different animal crates.

Each scope contains a “Home” section that explains math concepts addressed within the scope. Resources in this section outline the mathematical concepts for teachers and communicate the goals behind each task. The “Content Support” subsection includes a list of skills students should have mastered in previous grades, potential misconceptions or obstacles that could hinder student understanding, key vocabulary terms for the current scope, different ways to represent concepts visually, and what students will learn in future grade levels. Here is an example from the “Place Value and Rounding Decimals” scope: “A relationship between decimals and fractions that names tenths and hundredths has been established. In fifth grade, students continue this process through the thousandths place. Students also learn how to apply estimation strategies in rounding decimals to the nearest tenth and hundredth.” This section also lists current scope goals like, “Students will represent values of decimals within the tenths, hundredths, and thousandths places.”

Teachers also have access to scope-specific sentence stems, discussion reminders, possible student responses, teaching strategies, and misconceptions. For example, in the “Divide Decimals” scope, possible misconceptions include “Placing the decimal point in the wrong place of the quotient” and “Lining up the numbers within the algorithm incorrectly.” In the “Add and Subtract Rational Numbers” scope, possible misconceptions include “Adding or subtracting the common denominators instead of keeping the denominators consistent” and “Adding or subtracting the numerators.” In both instances, strategies to help prevent misconceptions are offered. Generally, the “Daily Numeracy” component includes sentence stems and hand signals to help facilitate discussion. “Math Chat” questions increase discourse in the classroom. In the “Graphing the First Quadrant” scope, a Match Chat question asks “What do you notice?” For this question, teachers have access to a sample student response: “It has a lot of little squares. There are vertical and horizontal lines that cross over each other. Each line is labeled. One is labeled x, and one is labeled y.” Outside of these two instructional tools, teachers can reference the “Communicate Math” section in their “Teacher Toolbox” for an overview of discourse facilitation. While there are no rubrics or assessments, there is guidance for student grouping.

November 2020

Accelerate Learning Grade 5

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

Math fluency instruction follows an intentional year-long plan, both in fluency-specific lessons and integrated throughout the units. Students' conceptual understanding progresses purposefully and appropriately for the grade level. Teachers have access to guidance for conducting fluency practice and for offering scaffolds, supports, and differentiation to effectively reach all learners.

Direct guidance for teachers on how to implement differentiation in fluency instruction according to student needs, including extension, was not found.

Evidence includes but is not limited to:

The materials include two specific fluency scopes and fluency instruction cycled into all other scopes. The two specific fluency scores are "Fact Fluency: Addition and Subtraction" and "Fact Fluency: Multiplication and Division." Both follow a four-step process: "(1) Introducing the strategy with discussion and hands-on manipulation, (2) Reinforcing the strategy with discussion and visual models, (3) Practicing the strategy with discussion and games, and (4) Applying the strategy with discussion, games, and everyday applications."

The Fact Fluency: Addition and Subtraction scope is the same for grades K-5, and the Fact Fluency: Multiplication and Division scope is the same for grades 3-5. Both scopes are divided into sections, and each section includes two stations, two games, and an online assessment.

These scopes include integrated discourse opportunities around math fluency concepts. For example, in a station during the Fact Fluency: Multiplication and Division scope, students discuss numbers that are multiples of both five and ten, the relationship between nickels and dimes, and how this relationship can help when finding total amounts. While there are online fluency assessments included in the curriculum, there is no guidance directing teachers on how to use this data to support students.

The adding and subtraction scope also includes mini-lessons for each section, while the multiplication and division scope does not. Lessons in the addition and subtraction scope focus on "doubles, making 10, sums within 20, and differences within 20." These mini-lessons provide instructions for introducing and reinforcing each strategy. Students engage with the strategies through discussion, hands-on manipulation, and visual models. During the mini-lesson for making 10, students use a ten frame and two sets of color counters to make 10 in as many ways as possible. These manipulatives and visuals help scaffold the activity for all students. They then record their representations and write corresponding number sentences. Like all mini-lessons, this one includes teacher guiding questions and possible student answers.

Outside of the two fluency-specific scopes, other scopes include "Fluency Builder" activities to help students develop their skills. These activities are included to "develop fluency of new concepts through independent and partner games." For example, in the "Classify Two-Dimensional Figures" scope, students play *Guess My Shape* and *Name That Shape* to practice classifying two-dimensional figures. Later, in the "Dividing Decimals" scope, students play *Dividing Decimal Baseball* to practice dividing decimals by whole numbers and *Mark the Spot* to practice matching quotients with area models, arrays, and equations.

Teachers receive directions to conduct fluency activities, support to help them understand fluency concepts, and descriptions summarizing the expected progression of student learning. The "Lesson Planning Guide" found in the "Teacher Toolbox" provides two options to integrate fluency instruction into the daily schedule. First, teachers can begin class time with whole-group "Fact Fluency" or "Daily Numeracy" activities. Second, teachers can complete Daily Numeracy during whole-group instruction and Fact Fluency as part of a station. Teachers also receive summaries that describe the strategies students should use, and conceptual connections they should make, during each fluency scope station. Here is the summary for the Fact Fluency: Multiplication and Division scope, Station 1: "Students should use the doubling strategy to find the product of 2 and another number. Likewise, students should relate the multiplication facts to their corresponding division facts to record a multiplication and division equation for each model." While many fluency activities include these scaffolding components, teachers do not have access to lesson-specific supports or explanations that respond to students' various needs. *When* and *Why* to implement scaffolds for struggling students are not included. Additionally, teachers do not have the guidance necessary to extend fluency activities for those who master fluency concepts. However, there are still enough supports to provide adequate differentiation generally.

November 2020

Accelerate Learning Grade 5

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 support students in the development of mathematical language. There is a strategic approach to building vocabulary, ensuring students have embedded opportunities to listen, read, write, and speak using mathematical language. To support students, teachers have access to scaffolds, facilitation guides, and lesson directives; these directives include vocabulary-specific discussion prompts, questioning, and explanations.

Evidence includes but is not limited to:

The "Communicate Math" section of the "Teacher Toolbox" resource outlines vocabulary facilitation suggestions for teachers to use throughout the scopes. These suggestions include the use of adequate wait time, the use of different discussion structures, and the inclusion of a variety of approaches for students to convey their learning. Then, each scope includes a "Content Support" section that identifies, defines, and explains vocabulary that will be taught within the specific scope. However, most strategic mathematical vocabulary development occurs with the "Explore" section of each scope.

As stated in the "STEMscopes Math Research and Philosophical Approach" document: "*Explore* activities include facilitation for the teacher on how to attach academic vocabulary to the student's experiences during instruction. These activities also include discussion prompts for the teacher to guide students in communicating their thoughts using academic language. The embedded ELPS Strategies can help support English language learners as they acquire new vocabulary. The Picture Vocabulary presentation is a support tool for teachers to represent new vocabulary."

Vocabulary introduction is embedded within the context of mathematical tasks. For example, in the "Balance a Budget" scope, teachers use a pan balance to introduce the concept of a

balanced budget. Teachers review the key vocabulary terms *income* and *expenses* before explaining a balanced budget. Sequenced teacher prompts help students transfer concept vocabulary from informal to formal language. The lesson concludes with students completing a series of tasks necessary for keeping and balancing a budget. Another example can be found in the "Volume" scope. The lesson outline includes teacher questions and explanations that use the scope vocabulary in context: "What information do we know? Each block represents 1 *cubic foot*, and the pool can be either a *cube* or a *rectangular prism*. What is a *cube*? It is a three-dimensional square with six equal sides, or a three-dimensional figure with equal square sides."

Explore lesson activities are also experience-based and formatted so students can learn vocabulary as they relate to each concept. For example, in the "Number Patterns" scope, students work in small groups to complete graphs and tables representing either the *additive* or *multiplicative* numerical relationship. Students sort and record the results. Then, they participate in a teacher-led decision about the relationship they discovered; in this discussion, teachers ensure students incorporate the concept vocabulary. In other scopes, students use informal and formal mathematical language during activities like "Math Chat," "Student Journal," and "My Math Thoughts."

The materials provide scaffolding suggestions within the lessons to support language development. "Procedure and Facilitation Points" outline discussion points and questions that require vocabulary usage. Teachers can implement these points whenever students need additional practice. Also, each Explore section contains an "Instructional Supports" resource that includes ELPS scaffolding strategies. For example, in the "Divide Decimals" scope, the Instructional Supports suggestion recommends providing students a list of vocabulary words to reference during discussion. Then in the "Represent Data" scope, students justify why a dot plot is correct. The materials suggest creating a visual glossary of key terms for students to use during independent work. Teachers can also reference the "Picture Vocabulary" slideshow located within each scope; each slide has one math vocabulary word, a related picture, and the definition. Additional ELPS strategies include having the class count by multiples together, using different facilitation options like *popcorn reading*, individually reviewing vocabulary, previewing lesson scenarios ahead of time, and creating vocabulary review cards.

November 2020

Accelerate Learning
Grade 5

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

Throughout the materials, students integrate math knowledge and skills to solve problems in a variety of real-world contexts. These problems relate to students' current lives, possible experiences in the future, and relatable scenarios. Problem-solving opportunities also often require real-world data analysis.

Evidence includes but is not limited to:

Students solve real-world problems throughout the steps of the 5E-IA structure of learning experiences: *Engage, Explore, Explain, Elaborate, Evaluate, Intervention, and Acceleration.* For example, in the "Engage" section of the "Income, Taxes, and Payment Methods" scope, students examine a pay stub and the financial terms on the pay stub, such as the federal withholding tax. The assignment is to explain the terms to a person who needs help understanding the check. The teacher explains the relevance to their lives, as they will one day receive paychecks of their own. To learn about financial concepts in the "Explore" section of this scope, students "visit" towns in the United States and purchase different items. In the "Explain" section, students continue learning about taxes and income by working through problems set in West Texas. Then in the "Elaborate" section, students read a story about taxes. Finally, in the "Evaluate" section, students answer the 10-question "STAAR-Based Assessment" before analyzing a possible paycheck error as part of the "Decide and Defend" activity.

These Decide and Defend activities are located in the Evaluate section of each scope. They require students to integrate knowledge and skills in order to develop an efficient solution strategy. In this open-ended assessment, students read a given scenario, analyze the information, draw a conclusion, and justify their thinking. For example, in the "Estimate and

Problem-Solve" scope, students read about a student who needs to determine the total cost for a trip to the movies. They work collaboratively to describe how he can calculate that amount and then defend their conclusion.

Other Evaluate tasks require students to solve problems in various contexts. For example, during the "Fluency Builder" activity of the "Multiplication and Division Algorithms" scope, students play a game in which they solve multiplication and division equations. After the game, students create their own multiplication and division problems and work collaboratively with other students to solve one another's problems. Then in the "Show What You Know" activity for this scope, students determine the best picture arrangement for an online scrapbook given a set of requirements. Students use their knowledge of multiplication and division to ensure that the picture layout is either a rectangle or square array.

Often tasks require students to analyze data through a real-world context. In the "Acceleration" activity of the "Balance a Budget" scope, students determine the profitability of wind turbines. Students reference a chart that contains data points and input this data into a formula to compute profit. The "Represent and Interpret Data" scope contains multiple real-world context data problems. For example, students create four different types of graphs using data sets, interpret the information, and justify their reasoning. Another problem in this scope has students organize given data and then determine the possible relationship between shirt size and shoe size. Separately, students count the number of times a specific event occurs during three classroom challenges and organize the data using frequency tables, stem-and-leaf plots, and scatter plots.

November 2020

Accelerate Learning
Grade 5

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 that supports the design of teacher and student resources. This research guides instruction, enriches educator understanding, and is current to the skill development of mathematics. All resources supporting the program's philosophy and design are cited.

Evidence includes but is not limited to:

The "STEMscopes Math Research and Philosophical Approach" document explains the research and philosophies behind the materials. The document provides summaries and excerpts of research that correspond with elements of instruction: "Learning with Real-World, Relevant Context, Conceptual Understanding and Number Sense, CRA Approach, Using Manipulatives, Collaborative Exploration, Computational Fluency, Promoting Equity, Content Knowledge of Teachers and Parents, and Building Academic Language." The included bibliography of research is both current and relevant. Examples of cited research include "Teaching Students to Communicate Mathematically" from 2018, "Math in Practice: A Guide for Teachers" from 2016, and "Practical Guidelines for the Education of English Language Learners: Research-based Recommendations for Instruction and Academic Interventions" from 2006.

The document goes on to explain how the research influences instruction: "Curriculum tasks are accessible to students of all ability levels, while giving all students opportunities to explore more complex mathematics," and "Teachers can build equity within the classroom community

by employing complex instruction" (Boaler and Staples, 2008). In the "Collaborative Exploration" section, the document includes short research quotes from the National Council of Teachers of Mathematics (NCTM) explaining the importance of communication and collaboration for math learning. These quotes explain that by allowing students to work together while learning new concepts, various solutions can be explored in depth, and communication skills are strengthened. The document then states, "Most of the elements in STEMscopes Math involve student collaboration and require a learning community within the classroom. In the *Hook* and *Explore* activities, students work together to gain an understanding of a new math concept. These activities include teacher guidance for facilitating math discussions. In the *Problem-Based Task*, students work together to use the new skills they just learned. Each of these elements prompts students to communicate their understanding and evaluate the reasoning of others."

Teachers can find additional research-based commentary in the "Conceptual Understanding and Number Sense" section. This document quotes research from multiple sources, including Marilyn Burns, and summarizes its relevance: "[when] students understand why they are doing something, they are more likely to compute accurately and determine whether an answer is reasonable." Students with this "deep conceptual understanding and strong number sense will have the tools they need to reason mathematically and solve problems in the real world." The document then describes the components of the program that address this aspect of learning: *Fact Fluency*, *Explore*, *Decide and Defend*, and *Small-Group Intervention*.

STEMscopes Math Research and Philosophical Approach includes a section titled "Content Knowledge of Teachers and Parents" that describes the program's philosophy on parent and teacher support, and it provides the research to support it. The document states "The ability of teachers and parents to help students understand math is limited by their own basic understanding." Content support is provided for parents and teachers who "need additional background knowledge to fully support their student's understanding."

Teachers can find this content support in their "Teacher Toolbox" under "Process Standards." Here, the process standards are grouped and explained. Research to support the process standard is quoted and summarized, and suggestions for instruction are listed. For example, in the "Process Standards—Analyze Relationships to Communicate Ideas" section, the materials cite NCTM 2000, provide an explanation of Process Standards (A) and (F), and give teacher guidance in the sections "What Teachers Should Do" and "Putting the Standards into Action: What Might It Look Like?" Teachers also have resources to aid their understanding within the scopes. For example, in the "Essentials" section of each scope, the materials explain the concept being taught, possible discussion prompts, and sample strategies to be used. This section also describes each standard covered in the scope, how it relates to the mathematical concepts of the scope, and cites the TEKS. In the "Content Support" section of each scope, there are examples of how to teach and explain mathematical concepts. The program states "This element will include why a concept is being taught a certain way by explaining what the students have already learned and giving insight to the concepts students will learn next."

November 2020

Accelerate Learning Grade 5

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

Students develop problem-solving ability that is transferable across problem types and grounded in the TEKS. Opportunities to practice are consistently found throughout the year, and students periodically reflect on their own approach. Teachers receive the necessary guidance to support student problem solving reflection.

Evidence includes but is not limited to:

The "Teacher Toolbox" includes the "Process Standards—Using a Problem Solving Model" that explains the problem-solving philosophy of the materials. Throughout instruction, students develop their problem-solving ability with intentional scaffolding, productive struggle, and real-world scenarios. Grounded in the Mathematical Process Standards, instruction is divided into six sections: "Analyze Relationships to Communicate Ideas, Communicate Mathematical Ideas and Their Implications, Create and Use Representations, Display, Explain and Justify Mathematical Ideas, Intentional Selection of Tools and Techniques to Solve Problems, and Using a Problem Solving Model." Each section includes an explanation of the standard, cited research, corresponding TEKS, teacher guidance, and examples of what instruction might look like in each grade level (K-5). There is also a "CGI Story Problem Type Framework" chart that offers teachers examples of different types of math problems, according to Cognitively Guided Instruction (CGI).

For example, the "Process Standards—Analyze Relationships to Communicate Ideas" summary section references the following aligned Mathematical Process Standard: A) Apply mathematics to problems arising in everyday life, society, and the workplace and F) Analyze mathematical

relationships to connect and communicate mathematical ideas. The “What Teachers Should Do” section offers suggestions like “Provide opportunity for students to analyze and create non-examples as well as to explain orally or in written form.”

The “Content Support” section of each scope describes the types of problem solving students will encounter and the methods they will use to solve those problems; example problems with visuals and solutions are included. For instance, in the “Add and Subtract Rational Numbers” scope, students use strategies including the algorithm and converting decimals to fractions. The document lists vocabulary, steps to solve, and algorithm examples.

Every scope follows the 5E-IA teaching model: *Engage, Explore, Explain, Elaborate, Evaluate, Intervention*, and *Acceleration.* In each step, students have opportunities to practice problem solving. For example, in the “Explore” section of the “Multiplication and Division Algorithms” scope, students explore prime, composite, and square numbers while creating different array arrangements; they record factors as they go. The teacher asks questions like “Does the orientation of the rectangles matter?” Later in the scope, students use arrays in multiplication and relate these to partial products. Here, students answer questions like “How does an area model work to find partial products?” Also in the Explore section, students complete “Student Journals” as part of problem solving practice. For example, on a Student Journal page of the “Divide Decimals” scope, students “draw the array” and “write the equation.”

Opportunities for problem-solving reflection are found in different components of the 5E-IA model. In “My Math Thoughts” activities, students reflect on problem solving along three areas: “Content,” “Process,” and “Affective.” For example, in the “Multiply Decimals” scope, students determine the amount of money earned from delivering newspapers. They explain if they think multiplying decimals is easy or difficult and why. In the “Multiply Fractions” scope, students solve and write a problem that involves dividing fractions. Again, they explain if multiplying fractions is easy or difficult for them and why. “Problem-Based Tasks” also provide students an opportunity to apply a problem-solving model. In the “Add and Subtract Fractions” scope, students solve problems about a family vegetable garden. They plan and model a garden based on given specifications.

Outside of direct instruction, teachers have access to a problem-solving rubric broken down into four areas: Understanding, Computation, Reasoning, and Product. Teachers facilitate problem-solving reflection throughout. For example, in the “Graphing in the First Quadrant” scope, students plot data points on a coordinate grid. This describes the amount of time students spend playing video games instead of doing homework. To complete the lesson, the teacher facilitates a discussion to help students reflect on their problem solving approach. One question used in this discussion asks, “Describe your process for graphing the points on the coordinate grid.” Additionally, teachers have access to “Math Chat” resources in the Teacher Toolbox; these prompts help them facilitate discourse and get students to reflect on their problem-solving approaches. Prompts for the teacher to use include “Why is this important?” and “What concept does this support?”

November 2020

Accelerate Learning
Grade 5

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

Throughout the year, students have ample opportunities to select and use objects, manipulatives, algorithms, and technology. They apply these tools successfully as appropriate for the concept, grade, and task. Each scope includes teacher guidance, ensuring students know which tools are appropriate and efficient for the specific situation.

Evidence includes but is not limited to:

The materials provide students opportunities to learn to use grade-appropriate tools for solving tasks and understanding concepts. The “Explore” step of each scope includes teacher-guided problem solving based on concepts being taught. The teacher guides students by thinking through the steps of problem solving, including appropriate tools to use for the problems. For example, in the Explore lesson of the “Estimate and Problem-Solve” scope, the lesson outlines guiding students to see that problems can be solved in multiple ways. The teacher reads students a problem-solving scenario and guides a discussion regarding the problem and appropriate tools to solve it. The materials include suggestions such as using provided manipulatives or drawing a visual representation. Students reflect on the strategies/tools used during a “Math Chat” discussion.

The materials provide students opportunities to select grade-appropriate tools for problem-solving tasks. In the “Problem-Based Task” of each scope, students use knowledge and tools from the current and previous scopes to solve real-world problems. For example, in the

“Represent and Interpret Data” scope, students use data to make vacation plans. Students organize their data sets on charts and graphs. Teachers encourage students to use their notes from previous lessons to help them choose appropriate strategies and tools.

The materials provide students opportunities to use a variety of grade-appropriate tools, including manipulatives, representations, and algorithms during their exploration of grade level content. For example, in the “Multiply Decimals” scope, students use play money, base-ten blocks, and area models to model multiplication of decimals. Students use these materials throughout the scope and make connections to previously learned multiplication concepts. In the “Divide Decimals” scope, students use tools including mental math, estimation, base-ten blocks, partial products, and properties of operations and algorithms.

The materials provide opportunities to select grade-level appropriate technology to solve tasks and understand concepts. Every scope includes an “Interactive Practice” activity, a technology-based game that reviews concepts from the scope. For example, in the Multiply Decimals scope, students play the game *The Right Price* to find the total cost of items at a grocery store. Some scopes include a “PHeT” activity, a technology-based interactive investigation tied to the TEKS that the students are learning in the scope. For example, in the “Multiplication and Division Algorithms” scope, students use the “Area Model Multiplication” to create multiplication arrays. The materials include virtual manipulatives in almost every scope, as well as prompts on when and how to use them. Virtual manipulatives include base-ten blocks, area models, quadrilateral cutouts, and fraction tiles. In the “Place Value and Rounding Decimals” scope, students use virtual base-ten blocks, number lines, or place value disks. The tools are used to determine the place value of decimals and round decimals.

The materials provide teachers guidance about the tools introduced and which tools are appropriate for each task. The “Content Support” section of each scope has pictures, explanations, and uses for tools referenced in the scope. For example, in the “Volume” scope, the materials include a visual model of how unit cubes can be used to find volume. The materials list guidelines for using this tool, including “When filling an object, there should be no gaps between cubic units.”

Within the Explore tab of each scope, the materials provide a video with a detailed explanation of the scope, materials, and how students can choose to model or solve given problems. In the “Home” section of every scope, teachers find a customizable list of materials needed for all the activities and tasks in that scope. Also included are step-by-step “Procedure and Facilitation Points” that provide teachers with guidance for lesson delivery, including the use of the appropriate tools. For example, in the “Represent and Interpret Data” scope, the needed materials include the “Reaction Measurement Data Table.” Teaching points about the table’s proper use are listed, such as guiding the students to use the tool to record data. In the “Hook” activity of the “Represent and Interpret Data” scope, teachers introduce organizing data in order to find patterns and relationships in data. Throughout the activities in the scope, students practice using recording devices, including dot plots and stem-and-leaf plots. The teacher asks probing questions such as “What information can you interpret from a dot plot?”

November 2020

Accelerate Learning Grade 5

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 opportunities for students to select appropriate grade-level and content-appropriate techniques for the given task. There are supports for teachers to understand and teach strategies, including explanations and examples. Lessons include wording for student questioning and explanation of multiple strategies. Lessons and activities help students to learn, use, and choose between these various strategies. Strategy instruction progresses throughout and across the scopes.

Evidence includes but is not limited to:

Within each scope, students work through the “Problem-Based Task,” found in the “Elaborate” tab. Students are presented with a real-world problem and must solve and justify their answer using any of the strategies learned in the scope. For example, in the “Multiplication and Division Algorithms” scope, students develop a snack budget for various grade levels. Students use any of the strategies taught in the scope, such as determining prime or composite numbers and the multiplication or division algorithm. In the “Multiply Decimals” scope, the materials introduce students to area models, number lines, partial products, and algorithms. In the Elaborate portion, students practice using arrays, models, number lines, and area models. The student worksheets include questions to check the students' understanding of the strategies.

The materials prompt students to select a technique, as appropriate for the grade-level and the given task. Students are prompted to select a technique within multiple components of each scope. For example, in the “Math Chat” of the “Multiplication and Division Algorithms” scope,

students select the grade-level appropriate techniques to solve problems and share their process with other students. In the “Add and Subtract Fractions” scope, students are taught how to use fraction circles, fraction towers, pictorial models, and find common denominators to solve problems. In the “My Math Thoughts” activity, students solve a problem, then compare their strategy with a partner. Finally, students determine a different strategy they could use to solve the problem. In the “Multiply Decimals” scope, students learn to find products using strategies such as pictorial models, grouping concrete objects, and properties of operations. In the “Problem-Based Task,” students select a technique that is appropriate to determine a business plan that will make a profit. In the “Divide Decimals” scope, students use the properties of operations, place value, and area models to solve problems. In the Problem-Based Task, students select an appropriate technique to determine equal shares of the cost of a meal. In the “Volume” scope, students use concrete objects, pictorial models, and a volume formula to determine the volume of various solids. During the Problem-Based Task, students create a presentation that shows how to find volume.

The “Home” section of each scope provides teachers with valuable information: the standards being taught, misconceptions students may have, ways to address misconceptions, and example math problems with solutions. During the “Explore” activity at the beginning of each scope, students watch a video that explains the lesson and what they are expected to do in the lesson.

The “STEMscopes Math Philosophy” document explains the importance of a Concrete Representational Abstract (CRA) approach to teaching problem-solving strategies. The “Engage” step of every scope includes a “Hook” in which students watch a video, analyze the problem, and discuss their ideas and strategies for solving the problem using concrete objects like blocks and coins. During the Hook lesson, students are taught the skills needed to solve the problem using the CRA Approach. Students continue to practice those skills during lessons, choosing the tools and techniques they have learned. In the “Evaluate” step of the scope, students choose the most efficient strategy to solve problems, which is evaluated for the level of mastery by the teacher. For example, in the “Multiply Decimals” scope, students use arrays and area models to solve a multiplication task. In a Math Chat, the teacher facilitates a discussion comparing strategies and questioning their efficiency. The materials provide a rubric to score students’ reasoning, understanding, and computation. The “Estimate and Problem-Solve” scope contains two Explore activities that teach specific strategies: “Estimating Solutions and Represent” and “Solve Using Equations.” The Math Chat section of these lessons includes a sample script for teacher-led discussion of how problems are solved. The My Math Thoughts activity at the end of the scope has students choose their favorite way to solve a problem and explain why.

The materials support students learning multiple appropriate strategies to solve problems. For example, in the “Divide Decimals” scope, students learn to model equal groups, use place value relationships, arrays, area models, and the standard algorithm to solve problems. In the “Place Value and Rounding” scope, students use mental math, number lines, estimation, and concrete models to solve expanded notation and addition problems. In the “Addition and Subtraction of

Fractions” scope, students learn various strategies using pictorial models, number lines, mental math, and number sense to determine sums and differences.

November 2020

Accelerate Learning
Grade 5

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 by providing learning experiences where students share strategies, collaborate, and discuss their work; included teacher guidance helps facilitate this sharing. Students are presented with relevant problem scenarios that align with learning and facilitate productive struggle, supporting students to see themselves as capable mathematical thinkers. The materials support students in understanding that there can be multiple ways to solve problems by incorporating opportunities for teachers and students to share strategies and techniques.

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 materials are designed in the 5E-IA model: *Engage*, *Explore*, *Explain*, *Elaborate*, *Evaluate*, *Intervention*, and *Acceleration*. Progression through the components is sequential, with learning built on previous lessons, tasks, and experiences. This progression supports the productive struggle of students.

The "STEMscopes Math Research and Philosophical Approach" document explains principles on which the program is based, including "Collaborative Exploration" and "Promoting Equity." The document states that every scope includes a "Hook," "Explore" activities, and a "Problem-Based Task" in which students work together to solve real-world problems and "begin to reason mathematically as they discuss their ideas and debate about what will or will not work to solve a problem." The document states that, based on the cited research, "Allowing groups of students to work together to solve real-world tasks creates a sense of community and sets a

common goal for learning for all students." Through experiences presented in the materials, students explore scenarios together, listen to different approaches, communicate their understanding, and respond to the reasoning of others. For example, in an Explore lesson of the "Graphing in the First Quadrant" scope, students participate in a whole group activity to find the coordinates of a ship. After the whole group portion of the lesson, students record ordered pairs on the "Student Journal" page. In the next portion of the lesson, students work in groups to create coordinate grid maps and later participate in a "Math Chat" discussion regarding strategies used within groups.

The materials challenge beliefs and biases that conflict with all students seeing themselves as mathematical thinkers. The "STEMscopes Math Philosophy" states "Curriculum tasks are accessible to students of all ability levels, while giving all students opportunities to explore more complex mathematics." For example, the "Daily Numeracy" activities provide opportunities for students to "fortify and develop their understanding beyond the procedure." In the "Blank Number Line" activity of Daily Numeracy, students place number cards, including fractions, decimals, and whole numbers, on a number line. The teacher presents scenarios and adjusts the activity to promote questioning and alignment with students' prior knowledge. In the "What Do You See?" activity, students are shown a slideshow and determine number patterns. The teacher models critical thinking and strategies through think-alouds.

Materials support students in understanding that there can be multiple ways to solve problems and complete tasks. For instance, in the "Problem-Based Task" found in each scope, students solve a real-world problem using multiple strategies. Regarding the Problem-Based Task, the STEMScope Math Philosophy document states "In each practice opportunity, students have the flexibility to use different processes and strategies to reach a solution. Students will develop fluency as they become more efficient and accurate in solving problems." Each scope also contains a Hook activity in which a real-world problem is presented, along with a video to prompt discussion among students. Students apply previous knowledge to solve the problem. After working through the Explore activities in each scope, the problem in the Hook is revisited, and students discuss how they determined their solutions and revise them if needed. For example, in the Hook activity of the "Perimeter, Area, and Volume" scope, students determine the measurements of a garden with missing side lengths, using representations or concrete models. The teacher facilitates discussion regarding formulas or strategies used to find the perimeter, area, and volume.

The materials provide instructional supports for facilitating and sequencing the sharing of student approaches. For example, each scope includes Math Chats found in the Explore section. Math Chats are teacher-led discussions of strategies. A script is with questions, prompts, and possible answers is included in the materials. The contents of each Math Chat align with the "Explain" activities of the scope. Each scope also includes a "Decide and Defend" activity, found in the "Elaborate" section, in which students determine if a given solution is correct or incorrect and justify their mathematical thinking. For example, in an Explore activity of the "Estimate and Problem-Solve" scope, students work with a partner to use estimations when solving problems about road-trips. As partners work, they are prompted to ask and answer three questions for

each problem they solve, including “Can you explain your estimation strategy to me?” After partners have completed the problems, the teacher guides the class in a Math Chat regarding estimation and problem-solving strategies used. In the Decide and Defend task of the scope, students analyze the problem solving strategies of a hypothetical student.

November 2020

Accelerate Learning
Grade 5

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

Students have multiple opportunities to communicate mathematical ideas throughout the scopes and lessons. They are guided to use multiple representations when solving problems and to use representations appropriate for the task. The materials also provide guidance for teachers in prompting students to communicate mathematical ideas in a variety of representations, including writing and the use of mathematical vocabulary.

Evidence includes but is not limited to:

The materials provide opportunities for students to communicate mathematical ideas. Each scope or unit in the materials is structured in a 5E teaching model: *Engage, Explore, Explain, Elaborate, and Evaluate*. Within the components, students collaborate to analyze real-world problems, explain their thinking using manipulatives and visual representations, and respond orally and in writing. For example, in the “Decide and Defend” activity of the “Evaluate” step of the “Place Value and Rounding Decimals” scope, students determine if a child bought the correct sized book cover based on the dimensions of a book and the cover. Students explain their decision.

The materials contain tasks that can be solved using a variety of mathematical representations. For example, in the “Explore” lesson of the “Arrays and Area Models” scope, students determine how many pieces of paper are needed to create and print a sign based on information provided. Students trace base-ten blocks to create a pictorial representation in their “Student Journal.” Students then use base-ten blocks to create arrays and area models of the sign and use the area model to determine how much paper is needed.

The materials contain tasks that ask students to use representations to organize and show their thinking to communicate with others. The “Preparation” section of the “My Math Thoughts” activity of every scope directs teachers to “Allow students to have access to a variety of mathematical tools, such as place-value blocks, fraction circles, and mathematical models such as place-value charts, fraction walls, number lines, etc.” The “Procedure and Facilitation Points” states to “Encourage students to persevere through their thinking and to use mathematical tools and models as necessary.” For example, in the “Graphing in the First Quadrant” scope, students “have the opportunity to write out their mathematical thoughts and ideas.” Students describe how they remember which number goes on each axis on the coordinate grid, explain why they think using ordered pairs on a graph is important, and state when they think they would use ordered pairs in their own lives. Teachers guide students through the process, prompting them to discuss their thoughts with a partner, use mathematical tools or models to demonstrate their thinking, and write their thoughts using appropriate vocabulary.

The materials provide suggestions for teachers to support the communication of mathematical ideas, both in writing and orally. The “Teacher Toolbox” contains the section titled “Communicate Math—Writing” that provides facilitation points and ways to incorporate writing in the math classroom. The guide includes suggestions for “Expectations” and “Possible Types.” Expectations listed include “provide writing stems for students to use if necessary.” Possible types listed include concept maps, Frayer models, and word problems.

The “STEMscopes Math Philosophy” found in the “Essentials” section of the “Teacher Toolbox” explains that collaboration provides opportunities for students to begin reasoning mathematically “as they discuss their ideas and debate about what will or will not work to solve a problem.” Teachers facilitate “Math Chats,” found in the Explore lessons of each scope. Students share their thinking and listen to their classmates’ reasoning about solving math problems. The Math Chat directions include discussion questions and sample student responses. For example, a Math Chat if the “Balance a Budget” scope includes questions about expenses and budgets. Students work in groups to analyze a sample budget before the Math Chat. The questions ask students about their experiences as they solve the problems. For instance, “How are budgets beneficial in keeping track of how you spend your money over time?”

Teachers guide students to reflect on their own knowledge by asking probing questions and instructing students to record reflections in their journals. For example, in the Explore lesson of the “Balance a Budget” scope, teachers guide students through a series of steps to balance a budget when expenses exceed income. As students work, the materials provide questions and prompts to give students the opportunity to share about their learning. For instance, “Why did you decide that the utilities expense might be able to be reduced?” and “Which expenses do you think Layla should eliminate until she has saved some money?” The materials provide teachers with prompts for discussion about the process of balancing a budget, such as “What are some things you can do to balance an unbalanced budget?”

The materials support teachers in developing students' use of mathematical vocabulary. The STEMscopes Math Philosophy explains that "Students learn academic vocabulary by attaching new words to prior knowledge and experiences." In every scope, "The Explore activities [provide] facilitation for the teacher on how to attach academic vocabulary to the student's experiences during instruction." Each scope includes picture vocabulary to be used during instruction with students. The "Terms to Know" section of the "Content Supports" lists vocabulary taught in the scope.

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 throughout the scopes. Opportunities for discourse are outlined in varied formats, including small group, whole group, and peer-to-peer. Discussion is integrated throughout lessons and activities and supports students' development of content knowledge. The discussion formats, questioning, prompts, and content are appropriate for the concepts being addressed and the grade-level. Teachers receive guidance for implementing and facilitating discussion.

Evidence includes but is not limited to:

The materials intentionally provide opportunities for all students to engage in mathematical discussions in a variety of groupings. As instruction progresses through the steps of the 5E teaching model, students communicate and explain their ideas visually, orally, and in writing. For example, each scope begins with a "Hook," in which students view a video and determine a solution to the given scenario. The Hook is a whole group lesson that includes discussion questions, such as "What do you notice?" and "Where can you see math in this situation?" In the Hook activity of the "Compare and Order Decimals" scope, students participate in a class discussion about a video they watched that showed a bicycle race. Students answer questions regarding race times that appear to be almost the same. The discussion continues in the "Explore" lesson. Students work in groups of four to compare decimals using place value disks and a place value chart. The lesson includes teacher questions like "When comparing numbers, what do you have to make sure you are doing?" Students record their work on their "Student Journal" page and discuss questions such as "Describe the process you could use to compare two numbers." At the end of the lesson, the materials include a teacher-facilitated "Math Chat" and "Exit Ticket" for students to complete.

Within the "Daily Numeracy" component of the scopes, teachers lead whole group discussion about mathematical strategies using mathematical language. The materials include participation hand signals to use during the discussion, such as a hand signal to show "I am

thinking" or "I agree." The materials provide question stems for the discussion, such as "How is this similar to/different from…?"

The materials include opportunities for discussion in all phases of concept and skill development. In the "Multiply Decimals" scope, the introductory Hook lesson includes a whole group discussion of a video that presents information about a mural. The lesson includes questions like "What expression can you use to find out the time it will take to paint the mural?" In the Explore lesson, students use manipulatives to explore the connection between repeated addition and multiplication in decimals and whole numbers. Students work as a group to complete the "Student Journal" page, and the teacher asks guiding questions to groups, such as "Does this remind you of any other models you have seen or created?" The lesson includes three "Math Chat" whole group discussions. Within their groups, students read and discuss scenario cards that ask questions about the weight and cost of chocolate.

The materials offer guidance for teachers on how to structure a discussion that is appropriate for the grade level. For example, the "STEMscope Mathematical Philosophy" explains how the materials are designed for collaborative exploration. The document states "Most of the elements in STEMscopes Math involve student collaboration and require a learning community within the classroom. In the Hook and Explore activities, students work together to gain an understanding of a new math concept. These activities include teacher guidance for facilitating math discussions. In the Problem-Based Task, students work together to use the new skills they just learned. Each of these elements prompts students to communicate their understanding and evaluate the reasoning of others."

The "Process Standards—Communicate Mathematical Ideas and Their Implications" section of the "Teacher Toolbox" describes how classroom discussion should look and feel. It describes classroom characteristics, such as building a safe environment, modeling how to interact, ensuring academic language is in use, and promoting oral and written conversations with different formats. The section also shows what this might sound like in each grade level by providing a sampling of questions. The "Communicate Math—Discourse" section includes a description of discourse and expectations for different grade levels, such as "Include a variety of approaches to convey knowledge, strategies, justifications, and conclusions."

November 2020

Accelerate Learning
Grade 5

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 materials provide opportunities for students to construct and present arguments. Students are prompted to use multiple representations, use mathematical language, and justify their ideas. The materials assist teachers in facilitating students to construct arguments. The teacher facilitation points and contexts that elicit student arguments are grade-level appropriate.

Evidence includes but is not limited to:

The materials provide students with opportunities to construct arguments to justify mathematical ideas using multiple representations. For example, in the “Problem-Based Task” of the “Addition and Subtraction Fractions” scope, students plan a garden given various dimensions. Students explain their solution and thinking. In the “Perimeter, Area, and Volume” scope, students determine measurements for a variety of shapes. After each calculation, students discuss what information they had and what information they needed to solve the problem.

Every scope includes a “Decide and Defend” activity in which students make a mathematical conclusion, explain their conclusion, and justify it. The format of the activity varies, including writing to respond, showing models to respond, and having group discussions to respond. For example, in the Decide and Defend activity of the “Simplify Numerical Expressions” scope, students determine which of four expressions matches a given problem scenario about the cost of books and their shipment. Students explain their reasoning and solve the problem. In the “Represent and Interpret Data” scope, students analyze various dot plots, determine which model is accurate, and justify their reasoning. Students use other models to interpret the data if necessary. In the “Compare and Order Decimals” scope, students explain which participant won

a race based on error analysis. Students use number lines, concrete models, or pictorials models to share their thinking.

Every scope includes “Math Chat” discussions within lessons. The discussions include opportunities for students to construct and present arguments. For example, in the “Divide Decimals” scope, after working on “Scenario Cards” with decimal division problems, students participate in a Math Chat. Questions in the Math Chat include “Tell me how what you understand about place value helped you solve scenario 4?” In the “Compare and Order Decimals” scope, students explain how to use place value, concrete models, or symbols to compare numbers. Students use number lines, concrete models, or pictorials models to share their thinking.

The materials provide routines and structures for teachers to facilitate students’ construction of arguments. The “Communicate Math—Discourse” section of the “Teacher Toolbox” includes an “Expectations” list for student discussion. The list includes guidance such as “Include a variety of approaches to convey knowledge, strategies, justifications, and conclusions,” and “Ensure each student contributes to the discussion with clear and organized thoughts and ideas.”

The “Process Standards—Display, Explain and Justify Mathematical Ideas” section of the Teacher Toolbox includes an explanation of Process Standards (A) and (G). The materials explain “This standard focuses on students validating their conjectures and conclusions with displays, explanations, and justifications. Emphasis is given to mathematical ideas and arguments. Problems provide a context in which students may draw conclusions and support mathematical ideas or arguments with their evidence.” This section includes a “What Teachers Should Do” list, including “Expect mathematical idea arguments and promote a productive discussion environment.” Also included are descriptions of what the standard may look like at different grade levels. For example, the materials state that while studying the topic of estimating solutions in fifth grade, students “must be able to validate their strategy with diagrams, oral and written explanations, and justifications.”

November 2020

Accelerate Learning Grade 5

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 and guidance for teachers to monitor student progress. These tools assess all content and process skills for the grade level. Formal and informal diagnostic tools are found within every scope, with guidance for administration and analysis. Diagnostic tools measure content taught within the scopes, within the lessons, across the grade level, and from previous grade levels. However, the materials do not include tools for students to track their own progress and growth.

Evidence includes but is not limited to:

The materials include formal and informal diagnostic tools that are developmentally appropriate. The materials include the formal" Benchmark Assessment" for grade levels 3, 4, and 5. The assessment "provides meaningful data that can be used to inform instruction in the classroom." Teachers assign assessments online and use online analytic tools in the areas of student performance, standards analysis, and item analysis. The "Pre-Assessment" portion of the benchmark assesses previous grade-level standards. The "Mid-Assessment" combines an assessment of grade-level and previous grade-level standards. The "Post-Assessment" assesses student mastery of standards in the current grade level. Student data from the benchmarks is analyzed by the "Quantile Framework" and assigned a Quantile measure or score. Online tools provide information about Quantile measures, including student performance levels, what content the student is ready for, student growth tracking, and predictions of student performance on STAAR.

Each scope contains three different formal assessments that can also be used to determine understanding of concepts. The “STAAR-Based Assessment” is a STAAR-aligned assessment in which students answer multiple-choice questions. “Decide and Defend” is an assessment where students evaluate a given solution and explain why the solution is correct or incorrect. A provided rubric for Decide and Defend includes three sections: analyzing student reasoning, computation, and understanding. The “Skills Quiz” is a number skills and computation assessment of concepts taught in the scope.

The materials also include informal assessments. For example, each scope contains a “Show What You Know” assessment in which students demonstrate an understanding of concepts taught in the scope’s previous lessons. In the “Place Value and Rounding Decimals” scope, students use a place value chart to show the value of digits and round decimals to the nearest hundredths place using a number line. The Show What You Know provides sample student answers and explanations for the teacher to determine student accuracy. Informal “Exit Ticket” assessments are provided for lessons in the “Explore” section of each scope to assess student learning of concepts within the lesson.

The materials include a “Quantile Parent Guide,” explaining the Quantile Framework, the meaning of students’ scores, and how to use scores to help student learning. Quantile scoring is used for the “Benchmark Assessments.” Each scope contains a parent letter explaining what students will be learning in the scope and ways to provide support at home. The materials do not contain guidance for parents on understanding assessment within each scope.

The materials include recommendations to support consistent and accurate administration of the tools throughout the school year. The Benchmark Assessment section provides guidance on when and how to administer this formal assessment three times a year. The “Standards Progress Tracker,” found in the “Teacher Toolbox,” is a form for teachers to track individual student mastery of standards for the entire grade level. The Show What You Know and formal assessments, including benchmarks, provide sample student answers and explanations for the teacher to determine student accuracy. The “Quantile Educator Guide” explains how to use the Benchmark assessments’ data, as well as what they measure. The materials include a “Scope and Sequence” in the Teacher Toolbox that states when diagnostic assessments should be administered. While there are numerous resources for the teacher to track student progress, there are no opportunities for students to track their own progress and growth.

The materials contain diagnostic tools to measure all content and process skills, as outlined in the grade-level TEKS. Each scope contains the Show What You Know section in which students are informally assessed and demonstrate their understanding of grade-level content. Each scope includes an Evaluate section with three types of assessment: STAAR-Based Assessment, Decide and Defend, and Skills Quiz. The Quantile Measures, which reports student performance on math skills on the material’s three benchmark tests, gives information on how students are progressing through increasingly difficult mathematical concepts and provides recommendations for intervention skills.

November 2020

Accelerate Learning
Grade 5

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 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 guidance for administrators to support teachers in analyzing and responding to data.

Evidence includes but is not limited to:

The materials include recommendations to support teachers in adjusting instruction to meet student needs, based on formal and informal assessments throughout the units or scopes. The "Lesson Planning Guides" describe how the components of the materials can be presented, based on the number of "Explore" sections in the scope. The guide includes "Assessment and Closure," daily recommendations to assess student learning. The document includes footnotes with suggestions for teachers of what to do after completing the "Evaluation" part of each scope. For instance, a footnote states "Use intervention if APK [Assessing Prior Knowledge] shows foundational gaps," and "Use Exit Tickets as well as Show What You Knows for each Explore completed."

The materials include guidance for scaffolding instruction based on students' needs. The "Intervention" section of each scope contains differentiated lessons to teach prerequisite skills

and guidance for teachers on how to group students and administer intervention lessons. For example, the “Divide Decimals” scope Intervention section contains a “Teacher Checklist” for teachers to collect notes on students’ progress. The materials include a scripted intervention lesson and a “Checkup” to administer after the lesson to determine mastery or progress.

The materials include guidance to support teachers in understanding the results of diagnostic tools. For example, the materials include a “Benchmark Assessments” section explaining the three assessments to be used at the beginning, middle, and end of the year. The “Teacher Toolbox” contains the “Quantile Measures” section, providing an explanation of scores and how it drives instruction. The “Quantile Educator Guide” includes an explanation of the framework, how to analyze the results, and a link to a website that houses free tools for teacher use. The tools include options to collect, record, and analyze student data. For example, the “Quantile Growth Planner” is used to determine if students are “on the path to college and career readiness or if they need additional support.” The “Math Skills Database” provides activities and resources aligned to state standards and Quantile scores.

The results of the assessment tools support teachers in identifying areas of need, as well as providing guidance on selecting from a variety of activities in a way that responds to data. Each scope contains an “Accessing Prior Knowledge” activity in the “Engage” section, the opening portion of the unit. If students show difficulty with the skill, the materials provide the “Foundation Builder” intervention lesson. For example, in the Accessing Prior Knowledge activity of the “Add and Subtract Fractions” scope, students determine which number line represents the solution to an addition or subtraction problem involving fractions with like denominators. If students have difficulty, the Foundation Builder lesson reviews addition and subtraction of fractions with like denominators.

The materials include resources to differentiate instruction based on student progress. Each scope contains “Show What You Know” activities, found in the “Explain” section. Students answer questions to show their mastery level of skills taught in the Explore section of the scope. The materials suggest using data collected from the Show What You Know to determine if students would benefit from intervention lessons or options found in the “Elaborate” and “Acceleration” sections of the scope. For example, in the “Classify Two-Dimensional Figures” scope, the intervention lesson reviews quadrilaterals and other polygons using concrete models. In an Acceleration activity, students create an app to organize two-dimensional figures.

The materials provide guidance for the administrators in supporting data analysis in STEMcoach In Action, an embedded professional development tool that administrators can use to support specific teacher needs as they implement the curriculum.

November 2020

Accelerate Learning
Grade 5

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 throughout the lessons and scopes. These progress monitoring components accurately measure student progress, and tools are included to track student progress. The frequency of progress monitoring is appropriate for the grade level and content.

Evidence includes but is not limited to:

The materials include routine and systematic progress monitoring opportunities. The curriculum is constructed using the 5E-IA teaching model: *Engage, Explore, Explain, Elaborate, Evaluate, Intervention, and Acceleration*. Within the components of the materials are progress monitoring routines, including both formal and informal assessments.

“Benchmark Assessments” are indicated to be administered at the beginning, middle, and end of the school year. The materials state “The intent of each assessment is to evaluate students on standards they have already learned. This means the Pre-Assessment will assess the standards from the previous grade level.”

The materials include progress monitoring throughout the scopes. For example, the materials include “Exit Tickets” at the closure of “Explore” lessons. “My Math Thoughts” written assignments and “Show What You Know” checkpoints are found within the “Explain” portion of each scope. “Checkups” are included after each “Intervention” lesson.

There are three different types of assessment at the end of each scope: “STAAR-Based Assessment,” “Decide and Defend,” and “Skills Quiz.” The materials guide teachers to collect data in a color-coded format to assess student progress and determine if the next steps should include intervention, acceleration, or practice grade-level skills within stations.

For example, in the “Number Patterns” scope, the materials include an Exit Ticket where students determine if number patterns are additive or multiplicative. In the My Math Thoughts assignment, students complete a table and explain how to complete the table in writing. In the STAAR-Based Assessment, students answer multiple-choice questions regarding numerical relationships in tables. In the Decide and Defend assessment, students determine if a given relationship correctly matches a problem-based scenario and explain their thinking. In the Skills Quiz, students answer a variety of question types about numerical relationships.

The program includes the “Quantile” progress monitoring tool, which measures and tracks student progress. The Quantile system includes resources aligned with the state standards (TEKS) and options for differentiated instruction based on students’ needs, as determined by the assessment tools. The “New Teacher Navigation Guide” explains that “STEMscopes Math includes unique pre-, post-, and progress monitoring assessments that correlate to a Quantile measurement for each student. Similar to Lexile reading levels but for math, this measurement can be used to determine a student’s current level of proficiency and readiness for new content, and to help parents understand their child’s learning progression.”

The materials include an appropriate frequency of progress monitoring, appropriate for the age and content. The “Teacher Toolbox” includes the “Scope and Sequence” outlining the week, scope, and standards to be taught for that grade level. The “Lesson Planning Guide” also gives suggested timelines for each scope. The timelines include the various assessments found within the materials. The “TEKS Checklist and Standards Progress Tracker” are provided to track student learning. For example, according to the Scope and Sequence, the “Multiply Decimals” scope addresses TEKS 5.3D and 5.3E and should be taught in weeks 5 and 6. This scope includes Exit Tickets at the closing of every Explore activity. The materials direct teachers to use Exit Tickets to determine which students need additional support to master the content skill and which students require support to extend their learning. The materials provide Intervention and “Acceleration” activities and lessons to address both needs.

November 2020

Accelerate Learning
Grade 5

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 include targeted instruction and activities for both students who struggle to master content and students who have already mastered content. There are corresponding enrichment activities for all levels of learners. Targeted instruction and activities are found consistently throughout the scopes, and each scope includes recommendations to address different student needs.

Evidence includes but is not limited to:

The materials provide recommended targeted instruction and activities for students who struggle to master content. The “Intervention” tab of each scope includes teacher guidance, recommendations for scaffolds to support students, progress monitoring, and additional practice resources. This tab is not part of a specific scope but is a resource for the entire set of materials. The interventions are separated into categories such as “Adaptive Development,” “Cognitive Development,” and “Social and Emotional Development.” Within each category, possible areas of student need are listed with corresponding ways to support the student. For example, the materials list options to help a student who may be struggling with content due to cognitive difficulties. The suggestions include modifying instructions, chunking work, modeling tasks, or using tangible objects to express abstract ideas. Each strategy includes a descriptor.

The Intervention section of each scope also includes “Small-Group Intervention and Supplemental Aids.” In the “Place Value and Rounding Decimals” scope’s Small-Group Intervention lesson, students use a meter stick to identify decimals in the tenths place. The lesson includes guided questioning and a “Checkup” to assess student understanding after the lesson. In the “Multiply Decimals” scope’s Small-Group Intervention lesson, students use place

value disks and base-ten blocks as tools to multiply decimals. The lesson has three parts, with increasing difficulty and student independence in practice. At the end of the lesson, students complete a Checkup to assess mastery.

The “Engage” section of each scope introduces content in a scaffolded manner. For example, in the “Simplify Numerical Expressions” scope, students observe a set of input/output tables and determine if matching numerical expressions are correct. If a student is not successful with this task, the teacher is provided a re-teach “Foundation Builder” lesson. The Foundational Builder lesson includes a slideshow with input/output tables with additive and deductive patterns, which matches the content level of the previous grade. During the lesson, the teacher asks guiding questions, and students discuss the tables, determine the missing values in each table, and determine the rule for each table.

The materials provide recommended targeted instruction and activities for students who have mastered content. The “Acceleration” portion of each scope provides various activities for exploration, application, and extension of learning. The “Perimeter, Area, and Volume” scope includes the “Math Today—What Will You Build?” activity. Students watch a video about Legos and solve math problems about the topic. In the “Multiply Decimals” scope, “Math Today—New Horizons Mission,” students watch a video that shares information about Pluto and solve math word problems connected to the information in the video. The Acceleration section of each scope also contains a “Create Your Own” activity. Students use the knowledge and skills addressed in the scope to create their own songs, tech apps, inventions, plays, etc. For example, in the “Place Value and Rounding Decimals” scope, students create a dance to help their classmates remember how to round decimals.

Additional instruction and activities for students who have mastered content are found in the “Elaborate” portion of each scope. Some activities include spiral review, journal prompts, problem-based tasks, and interactive practice through games. For example, the “Perimeter, Area, and Volume” scope includes the “Problem-Based Task—Remodeling the Children’s Museum.” Students work collaboratively to complete detailed plans to redesign a museum, utilizing measurement skills taught in the scope. In the “Multiply Fractions” scope, students complete the “Math Story—Firefighter’s Supper Pancakes,” in which they read a short story and answer questions regarding the story. In the “Dividing Decimals” scope, students match arrays or area models with quotients in a game-based station titled *Mark the Spot*.

November 2020

Accelerate Learning Grade 5

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 include a variety of developmentally appropriate instructional strategies to engage students in mastery of the content. Lessons include flexible grouping, such as whole group, partners, and small groups. The materials support multiple types of practices and provide guidance and structures to achieve effective implementation.

Evidence includes but is not limited to:

The materials incorporate the 5E-IA model in every scope. These components include a hook for student engagement, concrete models, virtual manipulatives, visual vocabulary, and media content. Lesson routines often include whole group and small group components. Student work routines include independent practice, partner work, and group work. The materials use multiple teaching strategies to meet students' learning needs. For example, each scope includes hands-on practice with manipulatives, student handouts to support learning, and a variety of visual representations.

The materials offer guidance to support teacher understanding of developmentally appropriate strategies to support learning. Each scope contains a "Content Support" section presenting the teacher with information about the content to be covered. For instance, in the Content Support section of the "Add and Subtract Rational Numbers" scope, vertical alignment and necessary student background knowledge are described for the TEKS included in the scope. Common student misconceptions and obstacles are listed. For example, students may forget to line up decimals. Information about the current scope is provided, including terms to know, steps to

solve the learning issues in the scope, phrases to avoid using, and coming attractions for the next grade level.

The materials provide an opportunity for students to work collaboratively, independently, or with teacher support. Students work independently on “My Math Thoughts” and “Show What You Know” and in partners during the “Fluency Builder” and “Problem-Based Task.” The materials provide teachers with support in facilitating whole group and small group instruction in the “Teacher Toolbox.” The plan for whole group instruction includes guidance for students on the mastery level, meets level, and approaching level. The materials outline a daily time split of 20 minutes for small group instruction with 70 minutes for small groups, stations, and closure.

The materials guide teachers on when to use specific grouping structures. This information is found under the “Procedure and Facilitation” tab. For example, in the “Divide Fractions” scope, students use area models to access and review prior knowledge. For students who cannot complete this task, the materials provide a “Foundation Builder” to address knowledge gaps. In the “Explain” section, as students continue through the lessons in the scope, students work in a small group to divide fractions in a “pizza” problem. Students complete an “Exit Ticket” to show mastery. For students who unsuccessfully complete the exit ticket, a small-group intervention lesson is provided.

Each scope contains an “Engage” section and an “Explore” section in which students use manipulatives and partner discourse to connect content to prior learning. In the “Add and Subtract Fractions” scope, a video “Hook” engages students. Fraction tiles, towers, and circles are used as concrete and virtual manipulatives. Students use fraction circles and models to represent real-world problems. Students work in small groups and rotate through stations while the teacher offers support as needed. The Engage lesson includes multiple instructional approaches, such as using concrete models, the justification for answers, and real-life scenarios to solve problems. Then in the “Place Value and Rounding Decimals” scope, students work individually in the Engage section and work with a partner/small group when they explore place value to the thousandths. Students who understand this concept at the end of the lesson complete the “Math Today—Ice Age Discoveries” extension independently. For students needing additional support, the materials provide a small group intervention lesson to reteach the concept.

The materials support the teacher’s understanding of instructional strategies in the Explain sections by including guiding questions, instructional supports, ESL strategies, and a “Picture Vocabulary.” In the “Estimate and Problem-Solve” scope, students determine if provided equations and strip diagrams match. Students discuss why they do or do not match. The teacher reads a scenario and asks students questions about their thinking. In the Explain section, students show what they know by writing an equation to match a word problem. Additionally, students write about their mathematical thinking and processes. Think time and partner sharing is included before writing time.

November 2020

Accelerate Learning Grade 5

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

The materials include accommodations for linguistics. Accommodations for English Learners are directly communicated in one component of the student learning experiences. The accommodations are not clearly scaffolded for various levels of English language proficiency. Guidance for teachers to support students at different English proficiency levels are not included. Although the materials include student materials in Spanish, they do not encourage the use of students' first language to enhance vocabulary development.

Evidence includes but is not limited to:

The materials are designed using the 5E-IA model: *Engage*, *Explore*, *Explain*, *Elaborate*, *Evaluate*, *Intervention*, and *Acceleration*. The "New Teacher Navigation Guide" states "By providing context before introducing new content, STEMscopes Math's time-tested instructional model helps ELLs to better absorb new material when language is an obstacle. Research shows that the 5E instructional model and SIOP best practices (building background through Engage, improving comprehension with Intervention materials, etc.) are indispensable for teaching new material to ELLs. STEMscopes Math uses both."

The materials include linguistic accommodations for students who are learning English. Within the "Content Support" section of each scope, the materials include a "Terms to Know" list consisting of terms essential for student understanding and mastery of the current skill. For example, in the "Unit Conversions" scope, the terms include *convert* and *customary system*. A definition is proved for each term.

Each “Foundation Builder” lesson, found in the “Engage” section of every scope, contains a table listing multiple-meaning words or words that could be misunderstood by students. For example, in the “Multiply Fractions” scope, the list includes the words *whole* and *third* and explains how students could interpret these words as “a hole” and “third place.” Definitions and examples are provided for the teacher to explain the word in a mathematical context.

Included in all “Explore” lessons is an “ELPS Strategies” section. This is a box found at the bottom of the lesson that lists strategies for use within the lesson and the corresponding ELPS standard. For example, in the Explore 1 lesson of the “Divide Fractions” scope, the materials cite ELPS standard “(1.H) Develop and expand repertoire of learning strategies such as reasoning inductively or deductively, looking for patterns in language, and analyzing sayings and expressions commensurate with grade-level learning expectations.” The ELPS Strategies box includes two strategies: “Encourage students to discuss the solutions to the problems with their group. Students may use trial and error or other reasoning skills to find the solutions,” and “As students are answering the reflection questions at the end of the Student Journal, ask them to think about words, terms, or phrases that kept coming up in their group discussions and what these might mean in different questions. Have students try including these words in their answers. Examples might include the terms equal parts, fractions, divide, quotient, equal groups, etc.”

Lessons and activities within the other components of the materials do not contain ELPS Strategies sections or guidance specifically noted for English Learners. The supports provided for English Learners are not separated by English language proficiency level, nor do the materials provide supports for specific proficiency levels.

An “Instructional Supports” section is also included in Explore lessons. This section provides suggestions for teachers to help students who need help understanding the mathematical content that is introduced in the lesson. This section is not labeled as specifically for English Learners. For example, in the Explore 1 lesson of the “Add and Subtract Numbers” scope, the Instructional Supports listed include “If students struggle with finding the common denominator, prompt them to try multiplying the denominators together to find the common denominator. Then, ensure they can determine each numerator while finding equivalent fractions. The concept of equivalent fractions and how to generate them might need to be revisited.”

“Picture Vocabulary” is included in the “Explain” section of each scope. The vocabulary is presented in a slide show and a student handout. Each term has a written definition and visual representation of the word. One set of scope-specific, grade-level words is included in each scope. For example, the Picture Vocabulary in the “Multiplication Models” scope has 12 words that include *equal*, *multiplication*, *array*, and *area model*.

The STEMscopes Math Philosophy cites research that states “Academic language is believed to be one of the most important factors in the academic success of ELLs” (Francis, Rivera, Lesaux,

Kieffer, & Rivera, 2006). In connection to this, the document states that the materials include opportunities for informal student communication, opportunities for students to respond in writing, and Explore activities that include teacher guidance to “attach academic vocabulary to the student’s experiences.”

Student materials are provided in Spanish, including “Student Journal” pages, “Exit Tickets,” “STAAR-Based Assessments,” and “Station Cards.” The resources do not encourage strategic use of students’ first language to develop linguistic, affective cognitive, and academic skills in English. There is no evidence that the Spanish content provides examples of how to use students’ first language as the foundation for developing skills in English.

November 2020	Accelerate Learning Grade 5

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 a year-long plan to build students' concept development. The instruction shows vertical alignment that builds year to year. The materials consistently provide review and practice of skills throughout the curriculum.

Evidence includes but is not limited to:

The materials include a cohesive, year-long plan that considers vertical alignment and builds students' concept development. The materials include a grade level "Scope List," which states the name of each scope, the corresponding TEKS of the scope, the number of "Explore" lessons in each scope, and the suggested number of weeks to allot for each scope. The materials also include a "Scope and Sequence" for each grade level. The Scope and Sequence lists a tentative instruction schedule for 36 weeks, listing the Week, Scope(s), and Standards (TEKS.) The materials include "Vertical Alignment Charts" that explain the standards above and below the current grade level. The Vertical Alignment Charts are divided into six strands that include Process Skills, Number and Operations, Algebraic Reasoning, Geometry and Measurement, Data Analysis, and Personal Financial Literacy.

The content plan is cohesively designed to build upon students' current level of understanding with clear connections between lessons and grade levels. Every scope follows the 5E-IA (*Engage*, *Explore*, *Explain*, *Elaborate*, *Evaluate*, *Intervention*, and *Acceleration*) model of teaching. The "Assessing Prior Knowledge" lesson is part of the "Engage" step. Teachers guide students to recall previously learned content as a way to assess the level of readiness for the current scope. If the students perform well in this section, the materials direct teachers to proceed to the new content in the scope. If prior knowledge is missing, teachers use the

student's current understanding and build upon the understanding with the "Foundation Builder" lesson.

During the "Explore" step of the scope, the materials provide activities for students to learn new concepts. During the "Explain" step, the materials outline skill practice for students to solidify their understanding. Within the "Elaborate" section, the materials provide TEKS aligned games and other activities for students to deepen their understanding of the scopes' concepts. The materials include activities for students who show mastery in the "Accelerate" section and "Intervention" lessons for students who have difficulty.

For example, in the Foundation Builder of the "Dividing Decimals" scope, the lesson is cited to address fourth-grade TEKS 4.4H. The lesson directs students to solve division problems that include remainders. Within the lesson, the materials list "Possible Preconceptions" students may have about the concept and "Suggested Solutions" to address them. For example, the materials state "Students may only solve the first step in a multi-step problem. Suggested Solution: Asking students if their answer is reasonable for the problem that is stated will help them see other steps in the problem."

In the Explore lesson of the scope, students use arrays and area models to solve problems involving decimals. In the "Show What You Know—Part 3" activity of the Explain section of the scope, students practice this skill, solving word problems that involve dividing decimals. Students who have mastered this skill continue to the Acceleration activities, including "Math Today—Tiny Tamarins," in which students analyze a real-world scenario. Students who have not mastered the content participate in small group lessons found in the Intervention section.

The "Content Support" section of each scope outlines current grade levels TEKS and "Coming Attractions" of the next grade level. In the "TEKS Unwrapped" section of each scope, the materials describe how the TEKS in the scope were taught in previous grade levels and how it will look in future grade levels. The "Vertical Alignment" section within this same document shows the TEKS of other grade levels that connect with the TEKS in this scope. For example, in the "Multiplication Models" scope, the materials list the TEKS of the scope, including "5.8A Describe the key attributes of the coordinate plane...the x-coordinate, the first number in an ordered pair, indicates movement parallel to the x-axis starting at the origin; and the y-coordinate, the second number, indicates movement parallel to the y-axis is starting at the origin." The document includes a brief description of previous grade-level learning: "In third grade, students graphed halves, quarters, and eighths as distances from 0 on a number line. In fourth grade, students graphed fractions and decimals to the tenths and hundredths as distances from 0 on the number line." Also included is a description of learning in sixth grade: "Students graph in all four quadrants of the coordinate plane" and "write linear equations to represent the relationship between values in an input-output table."

The materials provide review and practice throughout the curriculum. "Spiraled Review" is included in the Elaborate section of every scope. The description of the section states "Students review previous or current grade-level content based on the focal points set for each grade."

For example, in the Spiraled Review of the “Add and Subtract Rational Numbers” scope, the activity reviews fractions, volume, and locating rational numbers on a number line. In the Spiraled Review of the “Represent and interpret Data” scope, the activity reviews patterns in tables, volume, and points on a number line with rational numbers.

The materials also include “Fluency Builder” activities in the Elaborate section of each scope. The Fluency Builder activities review currently taught content and previously taught grade-level content. The Elaborate section also includes “Interactive Practice” for students to practice skills taught in the scope. For example, in the Fluency Builder of the “Multiply Fractions” scope, students match a fraction area model with a fraction equation while playing a game. In the Interactive Practice, students play a computer-based game practicing multiplying fractions.

November 2020

Accelerate Learning Grade 5

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 a TEKS-aligned scope and sequence that outlines the skills taught in the program. Vertical alignment components of the materials show how the knowledge and skills build and connect across grade levels. The materials include supports to help teachers implement the materials as a cohesive program. The materials include a school year's worth of math instruction, including pacing guidance. The materials include resources and guidance to help administrators support teachers in implementing the materials.

Evidence includes but is not limited to:

The materials include a *Scope List* that outlines the name of each scope, the TEKS referenced in the scope, the number of lessons in the scope, and suggested pacing by the number of weeks. The materials also include a Scope and Sequence, which lists the order of the scopes to be covered and TEKS covered in each scope.

The materials include documents titled 2019 Texas Math TEKS Kindergarten-3rd Grade Vertical Alignment Chart and 2019 Texas Math TEKS 4th-6th Grade Vertical Alignment Chart. The documents outline how the TEKS are presented and connected within and across grade levels. Within the TEKS Unwrapped section of each scope, the materials explain the vertically-aligned TEKS that correspond with that scope. The Content Support section of each scope provides detailed information about the TEKS in the scope including, Background, Misconceptions and Obstacles, Concrete Models, and Pictorial Models.

The materials include supports to help teachers implement the materials. The New Teacher Navigation Guide outlines the STEMscopes program, including information about how each scope was designed, the digital features of the materials, the components of every scope, assessments, embedded literacy, and ELL supports.

The Home section of every scope includes components with information for teachers. The Scope Overview describes the parts and flow of the unit. Content Support explains the learning objectives and common misconceptions. TEKS Unwrapped breaks down and describes the current standards being taught and shares previous and future TEKS alignment. The Materials List outlines items needed to deliver the lessons as intended. The Parent Letter explains to parents the skills that will be taught in the scope and what students need to be successful.

At the beginning of the Explore lesson of every scope, the materials include a video demonstrating the delivery of the lesson, followed by the materials and preparation steps needed for that lesson. Each Explore lesson also includes Procedure and Facilitation Points, a step-by-step guide for instruction, including possible student answers.

The materials do not include resources and guidance to help administrators support teachers in implementing the materials as intended. The available tools include STEMcoach In Action, an embedded professional development tool that administrators can use to support specific teacher needs as they implement the curriculum.

The materials include a school years' worth of math instruction, including realistic pacing guidance and routines. The Scope and Sequence Document outlines a full year's worth of instruction. This includes 36 weeks of total instruction, 34 weeks of new instruction, and two weeks of review and test prep for the STAAR test. The Scope and Sequence indicates a majority of the lessons support the development of the TEKS, with focus on the primary focal areas of the grade level.

November 2020

Accelerate Learning Grade 5

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 guidance for strategic implementation without disrupting the sequence of content that must be taught in a specific order. Guidance from the materials allows for variability in programmatic design and scheduling considerations. The materials are designed in a way that allow LEAs the ability to incorporate the curriculum into the district.

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 order to follow a developmental progression. The materials include a "Scope List" and "Scope and Sequence." The Scope and Sequence provides a suggested sequence of the scopes, or units, but states "STEMscopes Math program is flexible, and there are variations in implementation within the guidelines provided here. This Scope and Sequence is meant to serve as a tool for you to lean on as you find how STEMscopes Math best meets the needs of the students in your classroom."

The suggested sequence of units includes concepts that build on each other. For example, it is suggested that fifth-grade students learn how to multiply and divide decimals before learning about unit conversions. Grade-level scopes first introduce place value, then addition and subtraction, then multiplication and division, and finally area and perimeter. This order builds from one skill to the next.

The materials include “Vertical Alignment Charts.” These documents outline how the TEKS are presented and connected within and across grade levels. Within each scope, vertical alignment of standards is listed in the “TEKS Unwrapped” section.

The materials are designed in a way that allows LEAs the ability to incorporate the curriculum into district, campus, and teacher programmatic design and scheduling considerations. The “Lesson Planning Guide” provides suggestions for how to implement the materials within a school year. Suggestions include whole group, small group, and virtual learning options. The Lesson Planning Guide outlines two options: a five-day whole group and small group plan for scopes with one to three “Explore” lessons, and a five-day whole group and small group plan for scopes with three to five Explore lessons.

November 2020

Accelerate Learning Grade 5

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 relationships between teachers and families with the inclusion of parent letters that include content information and suggestions for supporting learning at home. The materials include explanations of and resources for families to support students' learning and development.

Evidence includes but is not limited to:

The materials support the development of relationships between teachers and families. The *STEMScopes Math Philosophy* states "STEMscopes Math provides Content Support for teachers or parents who need additional background knowledge in order to fully support their student's understanding. This element will include why a concept is being taught a certain way by explaining what the students have already learned and giving insight to the concepts students will learn next."

The materials provide a "Parent Letter" to be sent home at the beginning of the school year. The letter includes an overview of the STEMscopes Math program, including its philosophies and components. The letter is provided in English and Spanish. The topics described in the letter include the 5E lesson format, parts of each scope, alignment with the standards, hands-on exploration, making connections, inquiry, and analysis.

Each scope, or unit, includes a Parent Letter explaining the knowledge and skills students will learn in the unit. The letter is provided in English and Spanish. The letter includes a description of requirements needed to master a skill, examples of what a skill looks like, key vocabulary related to the concept, and encouragement for parents to ask students about their learning and have them identify real-life examples of the skill. For example, the Parent Letter of the "Number Patterns" scope explains that students will build on their knowledge of input-output tables from fourth grade and will learn how to "construct tables and graphs, find the values of

terms given an equation representation of a relationship between numbers, and identify whether a relationship is additive or multiplicative." The letter gives definitions of key vocabulary, such as an input-output table, variable, and inverse operations. The letter suggests that parents use the words during discussions with their student about what they are learning. The letter also explains that students will use the key vocabulary in class during activities such as *Math Chats* and class discussions.

The materials specify activities for use at home to support students' learning and development. The materials include online access to resources for parents to work with their children on specific skills. The "Teacher Toolbox" contains a "Quantile Information" section, which includes a "Parent Guide." The guide provides parents with an explanation of the "Quantile Framework" and how to use the "Quantile Measures." One of the sections, entitled "Practice Math That Supports Your Child," provides parents an example of activities they can use at home based on "matching the student's math ability to the difficulty of the math material."

Each parent letter includes information about how learning at school can be supported at home with specific discussions and activities. For example, in the "Compare and Order Decimals" scope, the Parent Letter communicates how students learn values of decimals to the thousandths place, shows example comparisons, and lists concept vocabulary. The letter describes how ordering and comparing decimal numbers can be connected to experiences at home if discussing times in a running race, money, and weight. The Parent Letter from the "Volume" scope states "Encourage your child to share these experiences with you and to teach you what he or she has learned. Ask your child to identify examples of what he or she is learning in everyday life, such as finding the volume of a box of cereal or soup can. "

Home support materials are available in English and Spanish. There is no evidence of the home support materials in other languages.

November 2020

Accelerate Learning
Grade 5

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 the materials supports student learning. The materials include the appropriate use of white space, and pictures and graphics are supportive of student learning without being visually distracting. Pictures and graphics are relevant to concepts being taught and relatable and recognizable to students. The design of the teacher materials includes instructional supports that are clearly stated and easily identifiable within the materials. Instructional supports have consistent locations within the materials.

Evidence includes but is not limited to:

The materials are designed in a manner that supports student learning. Student materials are available both online and in printable versions. Both versions of student pages include enough white space to perform calculations. The student pages have clean, bright graphics to support learning.

The teacher guides are designed with clear, designated places for important information. The materials are organized in sections, with tabs that can be clicked. The tabs contain a lesson planner, student data, benchmark testing data, and the lessons themselves. Within the units or scopes, the tabs contain scope information and the scope lessons. The tabs are arranged chronologically through the scope, starting with introductory teacher information in the “Home” tab. This tab includes “Content Supports,” “TEKS Unwrapped,” “Materials Lists,” and “Parent Letters.” The next tab is titled “Engage” and includes the first lessons of the scope. The materials include an instructional video in every “Explore” lesson demonstrating the “procedures and facilitation points.”

The materials consistently include a place for instructional support to aid teachers in planning and implementing lessons. For example, the “Teacher Toolbox” contains the “Lesson Planning” guide, which explains how to implement the various scopes and their components. Every scope piece has an “Add to Planner and Bookmark Element” option for teachers to compile material components during lesson planning.

The materials include pictures that are easily identifiable by students and support student learning. All graphics support the concept being covered in the scope. The “Math Story” found in each “Elaborate” tab contains a picture directly related to the story being told. All charts and graphs are clear and concise.

Each scope includes “Picture Vocabulary” cards. The cards include the word, its definition, and pictures that are clear and identifiable to students.

The materials adhere to the User Interface Design by including “Visibility of System Status.” For example, the cursor changes from an arrow to a hand when an aspect can be clicked. Users can easily navigate forward and backward. Consistency standards are present as the components of every scope look the same.

November 2020

Accelerate Learning Grade 5

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-based and online components of the materials are appropriate for the grade level and support student learning. The technology included in the materials aligns with the curriculum's scope and approach to mathematics skill progression. The technology components are consistent throughout the materials. The technology supports and enhances student learning through the use of tools such as games, manipulatives, and online assessments.

Evidence includes but is not limited to:

The materials contain technology that is aligned with the curriculum's scope and supports the progression of teaching math skills. Each component contains "Virtual Manipulatives" for students to model math scenarios, solve problems, and justify their thinking. Each component also contains an "Interactive Practice" game that reviews concepts taught in that section. The game can be played as a class or by individual students. For example, in the "Addition and Subtraction Models" scope, the materials include virtual base-ten blocks and an interactive addition game that incorporates strip diagrams and other models.

The materials include assignments and assessments that can be completed digitally including, "Show What You Know," "Math Story," "Problem-Based Task," "Decide and Defend," "STAAR-Based Assessment," and "Skills Quiz." Some components of the materials have editable Google files for differentiation of the resource. The materials have a right sidebar with links to available files, digital assignments, and handouts.

The online component includes embedded tools such as note-taking, decrease and increase of font size, text-to-speech, dictionary, annotations, highlighting, and editable forms.

The materials contain a section titled “Virtual Learning: Fifth Grade.” This section includes a video lesson that teaches math concepts aligned with the scope. The video lesson includes the use of manipulatives.

The Virtual Learning: Fifth Grade component is divided into categories that align with the TEKS, including “Numbers & Operations,” “Algebraic Reasoning,” and “Geometry & Measurement.” The virtual lessons correspond with lessons in the original scopes. For example, the lessons in the Numbers & Operations section correspond with the “Explore” lessons in the “Comparing and Ordering Decimals” scope.

The Virtual Learning materials provide guidance for teachers on how to use technology with students and how to support students with technology use, including suggestions if students are learning at home and manipulatives are not available, comprehension questions to review student learning, and resources that can be printed to use while watching the lesson. The materials also provide teachers with guidance on how to help students make connections between their digital components and the resources within the scopes.