November 2020

Savvas Digits 6–8 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 6	100%	100%	100%	100%
Grade 7	100%	100%	100%	100%
Grade 8	100%	100%	100%	100%

Section 2. Concept Development and Rigor

- Materials concentrate on the development of the primary focal areas outlined in the TEKS.
- Students progress along the CRA continuum in some places of the materials; however, concepts do not logically sequence from concrete to representational to abstract (CRA). Materials provide limited support to teachers in understanding and developing students' progression along the CRA continuum.
- Materials somewhat support coherence and connections between and within content at the grade-level and across grade levels; resources somewhat 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

- Students do not learn a specific problem-solving model; however, materials include prompts for students to apply problem-solving strategies.
- 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 to monitor progress; students are not given methods to track their own progress and growth.
- Guidance is provided for teachers and administrators to analyze and respond to data; however, administrators are not provided with the guidance or tools needed to support teachers.
- 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. Materials do not include enrichment activities for students who have already mastered the content.
- Instructional methods appeal to a variety of learning interests and needs.
- Materials include supports for English Learners (ELs) with sequenced and scaffolded linguistic accommodations commensurate with 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; however, there is no specific guidance for implementation 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.

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Savvas Digits Grade 8

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

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

Meets 4/4

The materials spend the majority of concept development on the primary focal areas, strategically and systematically develop students' content knowledge, and provide practice opportunities for students to master the content. The material content is primarily aligned to the eighth-grade level TEKS throughout, building on concepts from one unit to the next and using strategies that are consistent across all units to develop students' content knowledge for grade-level TEKS. The program spirals primary focal areas throughout and the material clearly showcases focal areas of grade-level TEKS throughout the material. Materials strategically and systematically develop students' content knowledge by design to inform teaching and learning and include introduction and review of key concepts at all levels. The instructional material also provides opportunities for students to practice while building academic rigor in primary focal areas within and across units. Teacher guides give instructions for the implementation of the resources. The materials discuss the organizational reasoning for each topic, as well as information from previous grade levels and explanations of how this approach will be used in future lessons. The materials describe the philosophy behind the focus questions listed within the topic and the benefit to student content understanding. They provide multiple digital practice opportunities for the focal area skills, which can be completed in a variety of settings. The materials build in rigor on concepts throughout each lesson to achieve the intent of the primary focal areas. The materials provide supports and suggestions for implementing supports, including a variety of settings such as independent work, working in teams, and class discussions.

Evidence includes but is not limited to:

The materials showcase focal areas of grade-level TEKS throughout the material. The “Program Overview Guide” shows the alignment of focal points to each topic. Each teacher guide showcases grade-level TEKS alignment for each part of the lesson. Lesson plans also include grade-level TEKS covered in the lesson. Some topics and units aligned with eighth-grade primary focal areas are: Topic 2, aligned with primary focal areas proportional relationships and expressions and equations; Topics 4, 5, 6, 7, and 8, continue to develop students’ understanding in primary focal area expressions and equations; and Topic 11, aligned with the primary focal area making inferences from data. According to the Standards alignment information, the primary focal student expectations are spiraled throughout the program. For example, 8.4B states that students will graph proportional relationships and interpret unit rates as slopes. This standard is spiraled in 14 lessons. Student expectation 8.8C, which states that students will model and solve one-variable equations representing mathematical and real-world problems, is spiraled into 11 lessons. The material contains 74 core content lessons.

The materials devote a majority of lessons to the primary focal areas for grade 8, as outlined in the TEKS. For example, the primary focus of 10 of the 15 topics covers proportional relationships, linear relationships, solving and writing equations and inequalities, angle relationships, identifying the solution to a system of equations, using and analyzing the Pythagorean theorem in addition to applying it to real-world problems, volume and surface area of figures described in grade 8 TEKS, using bivariate data to construct scatterplots in addition to creating, analyzing, and using trend lines to predict. These are the key focal areas for the grade level. Key focal areas are elaborated on and spiraled throughout the material. The materials showcase the primary focal areas in a consistent manner throughout the units, via the “Math Background” sections provided in each unit and lesson teacher guide. The materials provide a table of contents for all units with 15 topic descriptions, and within each topic, there are multiple lessons with a list of TEKS covered within those topics. For each unit, teacher preparation notes provide descriptions of each topic/lesson covered within the unit and the associated timing and TEKS, in addition to the primary focal areas covered within the unit. These primary focal areas line up with the TEKS. For example, the materials contain “Teacher Guide” planning documents that provide grade-level TEKS covered in the material, concepts covered in previous grade levels, and upcoming concepts to be covered in future grade levels. The material also provides a table with the lesson titles, which showcases where the primary focal areas are covered, along with suggested timing to spend on each topic.

Materials strategically and systematically develop students’ content knowledge by design. The Program Overview Guide outlines the program essentials consistently included in each topic, such as prerequisite lessons, launch activities to introduce key concepts, vocabulary and key concepts highlights, examples providing students opportunities to practice, topic review lessons to revisit and summarize learning, and enrichment projects as extension activities. For example, the Program Overview Guide focuses on Flexible Design, stating lesson design requires students to talk about mathematics and demonstrate their understanding, all while raising student interest and achievement. Additionally, the Program Overview Guide defines rigor in multiple ways and addresses techniques to develop the teaching and learning of math concepts,

developing skills and concepts with a depth of understanding. Examples of program overview outlines include Topic 3, which has an enrichment project entitled *Freestyle Functions*, a prerequisite lesson themed on *Skydiving*, five grade-level lessons, a topic review, and a Topic 3 test; Topic 6, which includes an enrichment project, a prerequisite lesson, four grade-level lessons, a topic review, and a Topic 6 test; and Topic 11, which includes an enrichment project, a prerequisite lesson, six grade-level lessons, a topic review, and a Topic 11 test. The design of the materials informs the teaching and learning of math concepts and notes a systematic philosophy around the introduction and review of key concepts. Focus questions are content-specific questions posed at the start of the lesson and revisited at the end of the lesson. Essential questions are used throughout lessons to link smaller ideas to a coherent whole idea within and across grades and units, creating cognitively demanding tasks and a rich problem-solving model. Multi-step problems are provided throughout the program. Using algorithms flexibly, accurately, and efficiently, standard algorithms are taught for understanding visual models and digital math tools for high cognitive levels of core instruction. Problem-based interactive learning drives the core instructional model with problem-based learning at the start of each lesson. It results in high-level, question-driven classroom conversations.

Teacher guides accompany each lesson, which includes the vocabulary and key concepts, while the interactive activities in each lesson provide students with opportunities to practice. The material also includes 25 intervention lessons clustered around key concepts. For example, cluster 15, Proportional Relationships, supports the development of primary focal area proportional relationships and includes three interactive activities: Graphing Ratios, Recognizing Proportional Relationships, and Constant of Proportionality. The design of the materials informs the teaching of math concepts through the use of teacher guides. For example, at the start of Lesson 6-2, the “Teacher Preparation Notes” contain a section titled Math Background, which provides the teacher with information regarding concepts that students covered in earlier grades and the transition to current material. The material takes a systematic approach to the teaching of each topic once any necessary remediation is made. “Launch” activities are interactive student activities that begin each lesson. The lessons begin with a launch, followed by examples, and end with a “Close and Check” wherein students explain in various manners their levels of understanding, such as how and why they chose an answer, error analysis, application to real-world situations, and verbal descriptions of the process used to find a solution. For example, the “In Class Notes” for Lesson 2-3 provide before, during, and after prompts for the Launch, “Problems/Examples,” and Close and Check for each TEK covered. The material also embeds scaffolding, extensions, and focus questions in the document (In Class Notes). This structure is consistent with the other lessons covering key concepts. Topics also include assessments.

The materials discuss the organizational reasoning for each topic, as well as information from previous grade levels and explanations of how this approach will be used in future lessons. The materials use a systematic philosophy by breaking down the material and then building upon student understanding. For example, unit lessons begin with a prerequisite lesson or enrichment activity to review or remediate students’ prior knowledge of the content, which is

then followed by the content lesson. Students are then taken through three practice activities that build on the content from each of the previous activities; the key concepts are revisited and reviewed; and finally, students can independently demonstrate mastery on the leveled homework assignments. This is demonstrated in Lesson 6-3. The prerequisite lessons review writing and solving one and two-step equations. The “Launch” for this lesson connects student understanding of inequalities to a real-world money example. In Part 1, students write and solve an inequality with a variable on both sides using whole numbers; Part 2 has students write and solve an inequality with a variable on both sides using decimals; Part 3 requires students to write a real-world problem that could be represented with a given inequality. Finally, homework, for both struggling and advanced learners, allows students to demonstrate understanding.

Each lesson includes opportunities for students to practice in different settings. Lessons include student companions for guided practice, leveled homework assignments that contain a variety of exercises at different levels of rigor, and a mixed review. The homework activities are printable and editable PDF documents, while the mixed review activities are interactive. Questions and tasks within and across units build in academic rigor to meet the full intent of the primary focal areas. For example, the first part of Unit C Lesson 5-2 asks students to solve surface area problems of cylinders using models. In Part 2, students build on this concept with less model guidance without nets. Part 3 then requires students to apply conceptual understanding to solve surface area problems in real-life scenarios. The materials build in rigor on concepts throughout each lesson to achieve the intent of the primary focal areas. For example, in Lesson 6-1, Part 1 requires students to review the rules of solving equations, building to Part 2, where students will determine efficient strategies for solving equations. Part 3 incorporates the Distributive Property, and finally, Part 4 allows students to find the error in solving equations.

Each lesson contains a detailed description of suggestions for the instructional process, including questions to address before, during, and after the lesson. Each lesson follows the same format from beginning to end, starting with “Launch,” which is a student engagement piece with mathematical content at the start of class through “Problem-Based Interactive Learning.” After students complete the launch problem, the program asks the focus question which they are to consider as they move through each “Example.” The materials typically include three examples per lesson, which provide direct, explicit instruction of the lesson’s concept. The examples build on one another to ensure understanding; ”Key Concepts” provide vocabulary development opportunities that are key to conceptual understanding of the lesson. Then “Close and Check” is designed to bring students back to the focus question. The “Student Companion” includes “Do you know how?” problems for additional practice and “Do you understand?” problems for higher-order thinking practice.

The materials also offer multiple digital practice opportunities for the focal area skills for completion in whole group, small group, and individual settings. Students complete digital lessons with virtual manipulatives and have the option to work with a print student companion.

The enrichment activities for each topic encourage students to engage with the focal areas in a real-world setting. For example, Topic 6 allows students to engage with the focal area expressions and equations by writing one-variable equations with equations on both sides and making comparisons for mass transit systems. Students will also engage with the focal area of data representation by creating charts of their findings. The materials provide supports and suggestions for implementing supports, including a variety of settings such as independent work, working in teams, and class discussions. For example, Lesson 7-1 provides a digital card sort to categorize the angle relationships shown in a diagram that works for a technology setting, which would be completed individually and then discussed as a class or with partners.

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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.

Partially Meets 2/4

While the materials provide many manipulatives throughout the lessons, as well as the on-demand "Math Tools," they provide little support. The lesson videos and lower levels of practice use the manipulatives, but the "Teacher Guide" gives no information on using manipulatives. There are many online manipulatives provided, along with some suggestions for hands-on, tangible activities to assist with concept acquisition; however, these are not present for all lessons. Additionally, there are not always suggestions or guidance for an alternative manipulative in low-tech classrooms. The materials mention utilizing tools with lesson topics and make suggestions to help students progress along the CRA continuum in some places. For the most part, the material does not support teachers in understanding how students progress along the CRA continuum. Though there are opportunities for instruction to incorporate concrete, representational, and abstract thinking skills, these skills are not always introduced and taught along the continuum. Additionally, there is no clear evidence of the importance of the sequence for developing student understanding and learning.

Evidence includes but is not limited to:

The materials contain pictorial and abstract representations throughout but minimal concrete or digitally interactive manipulatives. While some lesson interactives contain virtual manipulatives, the program does not have varied types of manipulatives, nor does the program introduce various types of representations to increase rigor. Examples of illustrations or pictorial representations include the following. Student journals are included but appear to be mainly abstract. Lesson i17-3 has numbers that students move to complete percent proportion

statements. Some student activity sheets refer to concrete materials that students can use to assist with concept development. For example, the r7 Activity Sheet K instructs students to use ribbon to model parallel lines and similar figures, and Homework Helper v1 illustrates key concepts of proportional relationships as a table and a graph.

The program does include a link in the "Student Companion" to myMath Universe, an extension to the program that includes videos, games, and simulations. This ancillary resource is not aligned specifically with individual topics and units. The "Glossary" provides additional support for vocabulary words. The program also provides external links to interactive tools such as a number line, place value blocks, algebra tiles, and a coordinate graphing program. Also, a "Math Tools" option is available, which houses number lines, place-value blocks, area models, fraction and percents, integer chips, algebra tiles, pan balance, coordinate grapher, 2-D shapes, 3-D figures, graph generators, probability, and a calculator. Some of these items are appropriate for the grade level and content, while others are not necessary or aligned with the grade-level standards. The materials provide easy access to many math tools and manipulatives such as a number line, place value blocks, area models, algebra tiles, integer chips and 2-D geometry, and more. The toolbar provides each of these tools throughout the lessons and embedded within appropriate lessons where applicable. The models, manipulatives, and representations are used for concept exploration and attainment for the primary focal area(s) of grade 8, and the materials teach the students how to use the manipulatives for their grade-level content. The materials increase in rigor, beginning with a launch to introduce the topic, followed by three lesson parts that increase in rigor, and ending with the "Close and Check" activity that typically entails higher-order thinking. For example, in Lesson 5-3, Part 1 of the lesson guides the student to use the Compare Figures tool, which is part of the 3D Geometry online tool. This tool allows the student to manipulate the dimensions of solid figures to compare volume calculations. It is important to note that there are no alternatives provided for non-technology environments. While the material includes digital manipulatives, it should be noted that manipulatives are rarely seen in the materials demonstrating content exploration or visual representations of abstract concepts.

No evidence is found to verify that the material guides the teachers in identifying where students' understanding is on the CRA continuum. Topic planning guides do include a "Math Background" section that provides teachers with a generalization of tools typically used to build concepts. Lesson guides provide similar information, even giving suggestions on difficulties students might have; however, the suggestions do not provide specific instructional strategies to help students progress through the CRA continuum. For example, the Lesson 2-1 Teacher's Guide states that students might struggle with understanding the product resulting from multiplying fractions and suggests that teachers have students think about the reasonableness of their answers. Even within the scope of the lessons, the continuum might not always begin with the concrete representations. The materials assist teachers in recognizing student progression along the CRA continuum by describing the build-up from part-to-part in each lesson's Teacher Guide. For example, Topic 4 systematically teaches students the why, how, and application of the Pythagorean Theorem. The materials suggest to teachers that students

use the 2D shapes online tool to connect the vertices of a square and provide “Questions of Understanding” before, during, and after the introduction to ensure readiness to move on. After the 2D shapes activity, the lesson moves on to Parts 1 through 3 with ample guidance in steering discussion, making suggestions, and determining possible correct answers or solutions from students. The materials provide instructional suggestions for teachers to help students progress through the CRA continuum. For example, the teacher guide for Lesson 7-3 states that students can drag, rotate, and drop the triangles anywhere on the screen to compare the interior angles of the triangle to the straight angle shown and includes a potential follow-up activity that entails tearing paper to recreate a similar outcome before they move onto the next piece of the lesson.

Although the materials provide a variety of representations of the CRA continuum in lessons, there is no evidence that the materials support the teachers’ understanding of the importance of the progression along the CRA sequence. For example, Lesson 6-1 covers solving two step-equations, and while the toolbar has the pan balance tool, Lesson 6-1 does not suggest using it in either the student lesson or teacher guide. Lesson 6-2 does begin with the appropriate manipulative, pan balance, leading into a pictorial representation for the concept, and uses abstract representations throughout the topic/lesson. However, it provides no guidance for the teacher to understand the progression along the CRA sequence.

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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.

Partially Meets 2/4

The materials provide some coherence and connections between and within content at the grade-level and across grade levels. While the materials do provide prior knowledge and skills information to the teacher for reference, they provide little opportunity or information to the teacher or students regarding how these skills are connected. There is no support given for discussions to engage students in recalling prior knowledge. Additionally, aside from listing future standards for subsequent years, there is little support regarding the depth and breadth of content.

Evidence includes but is not limited to:

The eighth-grade instructional materials contain between one and four instructional topics. Each unit starts with a “Prerequisite Assessment” consisting of 30 questions from prior grade levels and skills identified as skills necessary for content mastery in the current unit content. The eighth-grade instructional materials have 15 topics covering the eighth-grade math content. The “Teacher Guide” for each topic contains a section noting required prior student expectations and the future student expectations that students are working toward. Each topic includes a Topic “Enrichment Project” and a “Prerequisites Lesson.” Teachers assign the enrichment project to students who have shown mastery of the prerequisite skills using the Prerequisite Assessment. The project connects previously learned skills to higher-order thinking skills, communication skills, and technology skills. It also introduces concepts for the current

topic. For example, Topic 1 includes student expectations 8.2ABCD. The project addresses the student expectations 8.2AB. Teachers assign the Prerequisite Lesson to students who have not mastered the prerequisite skills in the Prerequisite Assessment. Students work with the teacher to develop an understanding of prior skills. The materials connect current grade-level topics to skills learned in prior grades, in addition to practicing those skills. For each topic, “Preparation Notes” explicitly describe material from previous grades and what will be covered in 9th grade and sometimes beyond. For example, on top of remediations made after the Prerequisite Assessments if needed, the topics begin with a “Prerequisite Activity” for all students with differentiated instructions that incorporates a review of concepts needed to move forward on grade-level work. The Prerequisite Activity for Topic 6 prepares students to solve linear equations with more than one step by using their knowledge from previous grades to write and solve simple equations based on various scenarios. The materials provide familiar models from previous grades to build on students' vertical content knowledge and connect with topics covered in future grades. For example, Topic 1 Preparation Notes describe concepts covered in previous grades, such as number lines. The materials do use the number line in grade 6 and grade 7 to model ordering rational numbers on a number line, and the number line is both used and readily accessible in eighth-grade material. The Preparation Notes also preview the associated topics to be covered in high school.

The materials include tasks that assist students in making connections from previously learned topics to current topics. For example, the introduction to scatterplots requires students to recall how data points are plotted on a graph and how to interpret/read graphs, which are concepts they learned in both grades 6 and 7. Through the lesson, they need to recall linear relationship concepts and how to recognize proportional relationships, which are topics they learned previously in the current year. The materials frequently include problems/tasks that require students to analyze how they can apply the current lessons to real-world scenarios. For example, Topic 10-4 includes real-world applications of similarity concepts, such as an artist using a model/grid to compose their artwork, an architect using a bedroom’s blueprint scale to conceptualize a bedroom’s real measurements, and using shadows to measure the height of tall objects, such as buildings, indirectly. The “Launch” section of each lesson presents students with a task to solve. After guided questioning by the teacher Before, During, and After solving the task, students are presented with a “Connect Your Learning” page that relates the previous task to the mathematical concept highlighted in the following lesson. For example, Lesson 5-5 gives students a prompt to determine if an amount of confetti would fit inside a globe or a can. This lesson requires students to recognize it as a volume calculation that requires a comparison of the volumes of the two figures. The lesson parts develop content by introducing the mathematical concepts, as well as relating them to real-world problem solving. For example, Lesson 5-5, Part 1, introduces students to the formula for calculating the volume of a sphere; Part 2 relates a 2D circle to a 3D sphere; finally, Part 3 requires students to work backward in the formula to find the radius given the volume in a real-world problem.

Some of the material include tasks that require students to use skills that build on one another and support students’ understanding of how the concepts build. For example, Topic 5 includes

a Prerequisite Activity that requires students to reflect on the basic area and volume skills previously learned. The first lesson's "Topic Opener" is a video that presents information on how area is extended to surface area and volume and applied to cylinders, cones, and spheres—an extension from prisms and pyramids. However, a task for students to complete does not accompany the opener. While the topic opener does not require students to complete a task, it does ask an essential question for student response. Lesson segments also provide information on the progression of skills but do not provide students the opportunity to examine the relationships or patterns for themselves. Enrichment Projects, such as that for Topic 9, include reflection sections requiring students to reflect on the task's relationships and patterns they completed during the project. However, these reflection questions still do not provide information on how students can understand mathematical ideas and how they are interconnected. "Pulling It All Together" sections provide students with tasks that utilize interconnected skills but do not support students intentionally making connections between those skills.

The materials do, however, provide some background information for teachers to understand what a student may have learned in prior grades. For example, the teacher guides throughout the instructional materials provide math background information that directly aligns prior content to the current content. Lesson 5-1 notes that "students used the properties of geometric shapes, including squares and rectangles, to find their areas. They used reasoning to find the area of other shapes—triangles, right triangles, special quadrilaterals, and regular polygons—by decomposing the shapes and rearranging the pieces. In grade 7, students used nets to recognize the two-dimensional shapes that comprise a three-dimensional figure, such as a prism or a pyramid. They applied their knowledge of area to find the surface area of these figures." Additionally, the lesson notes that "Since students just studied the Pythagorean theorem in the previous topic, advanced students might be able to apply the formulas they learn in this lesson to oblique prisms," allowing students to connect other concepts to current learning.

The materials contain "Math Background" sections within the Teacher Guides for each of the 15 topics of the instructional resource. This section lists what learning took place in prior grade levels or within the current grade level, and how this learning supports current topic material. For example, Topic 1 states "students learned that for computational purposes, an irrational number can be replaced with a rational number approximation. Now, students experience an entire lesson devoted to approximating irrational numbers in general." Topic 1 also lists what learning standards will be addressed after this level; however, there is no evidence of a supportive statement explaining how the current learning directly aligns or is broadened for the future content.

The materials provide explanations in the "Teacher Supports" to explain how the content progresses through the grade level and readies students for future applications of the content skills. For example, in the Lesson 4-4 Teacher Guide, the Math Background section details how the curriculum has built on the understanding of a coordinate plane by first introducing finding

points on a plane and then expanding that to include finding lines and triangles on a plane. In this lesson, students use the Pythagorean Theorem to calculate the distance between two points. This allows students to apply these practices to real-world problems with distance and GPS. While the materials clearly lay out the skills learned in previous grades, there is typically little explanation on how the current knowledge attained will specifically build in future grades.

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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.

Partially Meets 2/4

Although the materials are built around quality tasks and appropriate context, there is little guidance on how to modify materials if necessary. There is evidence that topics within and across units increase in depth and complexity as the lessons progress and that the materials provide tasks that increase in the appropriate grade-level rigor. Explanation of math concepts and tasks can be found in the teacher guides for each topic and lesson, and teacher guides for specific lessons include guidance for teachers explaining how tasks build student efficacy by providing sample student responses and guidance questions for tasks at the beginning of, during, and upon completing tasks. The material is rich with meaningful tasks providing opportunities for students to apply mathematics in real-world contexts but does not guide teachers on revising lessons for student interests. No evidence was found on rubrics or keys to evaluate student discourse, nor was evidence found to support the teacher with setting up and reinforcing strong practices for student discourse. The materials provide topics and tasks that incorporate topical information that is of interest to students of their age and uses various tactics to make material relevant. The materials provide multiple supports for teachers to assist students in developing strong content knowledge but do not give guidance to teachers on personalizing the content for their students' interests. While the materials provide many probing questions for students to discuss and internalize the content, they do not provide structured support for evaluating those discussions.

Evidence includes but is not limited to:

As a solely digital resource, the material sometimes guides students through the interactive use of simulations of concrete material, such as the use of graph paper in Lesson 2-1 to graph proportional relationships. The material includes representation models throughout the lessons, such as coordinate planes to illustrate slopes of lines in Lesson 2-3, input-output mappings in Lesson 3-1, Egyptian pyramids to demonstrate measuring a pyramid in lesson 4-1, and the use of a virtual protractor to measure angles in Lesson 9-3. Topics within and across units increase in depth and complexity as the lessons progress. For example, the material provides tasks that increase in the appropriate grade level rigor, such as in Unit B progressing from Proportional Relationships, Lines, and Linear Equations to Defining and Comparing Functions. Within the topics, the lessons are at the appropriate level of rigor. For example, Topic 3 provides an opportunity for students to conceptually understand recognizing a function, develop fluency in representing functions and extending to linear functions, and apply linear functions to real-world contexts such as graphing ticket sales to sporting events. The material guides students through the models and understanding with increasing complexity and rigor throughout each lesson. For example, Lesson 7-1 begins with a "Key Concept" activity where students use an online diagram to learn the vocabulary related to angle relationships formed by a transversal. In the next part of the lesson, students use a similar diagram to categorize relationships of given angle pairs, followed by finding missing angle measures based on these relationships. In the homework, application problems incorporate what the student has learned about angle relationships, such as using the concepts for a game of pool. The material does systematically increase in rigor within each lesson/topic; however, it does not appear that the rigor increases over the course of the year.

The teacher guides for each topic and lesson contain explanations of math concepts and tasks. For example, in Topic 5, the "Teacher Guide" explains how students extend previous knowledge of unit squares and nets to find the surface area and volume for prisms and pyramids. Teacher Guides for specific lessons include guidance for teachers explaining how tasks build student efficacy by providing sample student responses and guidance questions for tasks at the beginning of, during, and upon completing tasks. Teachers' "Lesson Guides" also include lesson objectives that clearly outline what goals the tasks lead students to master. For example, one of the standards Lesson 5-1 covers is TEKS 8.7B: use previous knowledge of surface area to make connections to the formulas for lateral and total surface area. The lesson objective states that students will solve real-world problems involving two-dimensional objects and the surface area of three-dimensional objects. The materials include "Essential Questions" and "Math Background" in the Teacher Guide for each Unit, Topic, and Lesson. Additionally, the materials explain how each task builds student efficacy toward the goal of demonstrating mastery. Unit Teacher Guides contain an explanation of the unit questions utilized in the topics and lessons and what the students should be able to understand by the end of the unit. For example, Unit C has five essential questions. The first two incorporate models, equations, and formulas for geometric measurements and problem solving. The third focuses on writing multi-step

problems; the fourth focuses on geometry with emphasis on using properties, making logical arguments, and drawing conclusions. The last focuses on solving linear equations. The Math Background section details the overarching understanding of the entire unit. These topics are intended to prepare students for high school algebra and geometry, and they provide understanding to prepare for geometric proofs and algebraic manipulation of equations and inequalities. Topic Teacher Guides, in addition to the Essential Questions and Math Background, includes a breakdown of standards included in the topic, prior taught standards, and standards students will see in the future, all included on the first page of the guide. For example, Topic 4: Using the Pythagorean Theorem, addresses how deductive reasoning and using logic and given facts can help someone deduce information about triangles. The Math Background suggests assembling facts in a logical order, analyzing a situation thoroughly, and presenting a sound defense, which are all addressed. The use of "Lesson Focus Questions" builds toward the overall Topic Essential Question, and the overarching understanding. Math Background typically states previously learned topics. Additionally, lessons contain "Lesson Objectives." For example, Lesson 4-1: The Pythagorean Theorem focuses on the relationship between the side lengths of a right triangle and a square. However, there is no statement or guidance on how the response to this question can help guide students to the understanding of the Essential Question for the topic. The Math Background notes how students previously learned about two-dimensional figures, decomposing them and rearranging the parts to form new figures. The material contains editable lesson plans but does not guide teachers in revising content for students' backgrounds or interests.

The materials provide students with the opportunity to apply math to different situations and real-world contexts. For example, the "Student Companion" sheet accompanying Lesson 3-2 starts with basic mathematical situations for students to work through. As the lesson progresses, the content begins to get more detailed, with the opportunity to justify thinking. By the end of the lesson, students use the newly learned concept and apply it to a real-world situation. The question is posed, "The earth travels 30 km/s in its orbit around the sun. Circle the correct representation(s) of this situation." There is no evidence on modifying tasks based on student need or ability, though the provided lesson plans are editable.

While the material provides information on sample student responses, it neglects to provide guidance on anticipated student responses and how to modify instruction based on those responses. For example, in Lesson 2-4, the Teacher Guide provides sample answers to each guiding question. The "Error Prevention" section provides strategies, such as reminding students to include units or showing student errors made by others, such as forgetting to look at the scale on the graph. Another strategy in the guide has students determine if a slope is positive or negative and write the symbol before calculating the slope. The Teacher Guide for Lesson 3-2 does sequence questions before, during, and after each step of the lesson, as well as expected responses; however, the introduction to the concept is abstract. The questions listed in Part 1 of the lesson are: "What are the two variables? Sample answer: hours walked and calories burned. Which variable depends on the other variable and why? Sample answer: Calories burned depends on the number of hours walked. Therefore, hours walked is x and

calories burned is y." The materials provide guidance on the appropriate grade-level strategies to use on tasks, although the anticipated strategies do not increase in sophistication, and only one strategy is offered.

The material is rich with questions that support student discourse. The Teacher Guide for the topic poses an essential question that is open-ended and prompts deep discussion. For example, Topic 1 has the question "What types of numbers are there and why do you need them?" The Teacher Guides for specific lessons include additional questions narrowing the focus; for example, Lesson 1-1 has the question "What is the difference between an irrational number and a rational number?" The material contains sample student responses to guiding questions before, during, and after lessons in the Teacher Guides, as evidence of sequencing of the discussion. The material addresses students' possible misconceptions in the "Solution Notes and Error Prevention" sections of the Teacher Guides. However, no evidence was found on rubrics or keys to evaluate student discourse, nor was evidence found to support the teacher with setting up and reinforcing strong practices for student discourse. There was no evidence of rubrics or guidance for providing feedback during student discourse. When referencing the "Program Overview" guide for teachers, it states "During instruction, share and discuss solutions provided with each digital *Example* and *Got It*? problem. These solutions foster communication during all parts of each lesson…" and that the "Do you know HOW," "Do you UNDERSTAND," and homework sections all "foster communication in ways consistent with the math process standards." Yet, there are no details on implementing these communication elements.

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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.

Partially Meets 2/4

While the material provides opportunities for developing procedural fluency in every lesson through its “Launch” and “Student Companion” activities, the opportunity to continue an ongoing, year-long plan is not evident or in place. A scaffold or extended fluency plan is also not evident. The materials provide discourse opportunities around conceptual understanding behind the fluency practice with the additional questions in the Student Companion pages and with the Topic Opener and Topic Close “Essential Questions.” The materials also provide opportunities for this development through emphasis on algorithms and building of number sense. The program overview provides guidance on finding fluency practice for each lesson, followed by conceptual exercises that tie both skills together. The material meets the majority of the guidance for each indicator, such as providing opportunities for students to choose an efficient and accurate strategy to problem solve and remediation lessons focused on fluency for students who show a need based on the prerequisite assessments at the beginning of each unit. However, while the material includes scaffolded homework, it has no extension activities specifically related to fluency for students who have shown mastery. Advanced students can find enrichment activities, yet many of those do not relate to number fluency and tend to focus on concept exploration. Also, while procedural fluency is required to show conceptual understanding in several tasks throughout the material, there is no year-long strategic plan given to teachers to build (or extend) fluency connected to concept development.

Evidence includes but is not limited to:

The materials contain a "Teacher's Guide" or lesson notes that describe the design and purpose of fluency practice within the program and make connections to the development of conceptual understanding. For example, the materials explain the connection between the fluency within the lesson and the focus of the lesson in a lesson note to teachers, noting that the fluency practice supports students' access to the concept of the day by supporting the quick recall of facts used throughout the lesson. There is no evidence that the materials provide support for conducting fluency practice with students or provide strategic discourse opportunities. Each launch presents an open-ended scenario for students to develop and demonstrate conceptual understanding, utilizing a strategy of their choice. For example, Lesson 1-2 presents the following problem: "Due to the sauciness of their sauce, the local lasagna shack decides to expand its old square napkin to a new square napkin. Find the approximate side length of the new square napkin. Explain what you did." The material provides strategic discourse opportunities around conceptual understanding behind fluency practice through Topic Openers and Topic Close "Essential Questions." The "Connect Your Learning" Focus Question for Lesson 5-5 asks, "How are the side lengths of a right triangle and the side lengths of squares related?" While the material provides these opportunities, it has no outlined plan that supports determining how and when to conduct fluency practice.

The program overview guide states that algorithms are practiced for fluency in the "Do You Know HOW?" exercises provided in the Student Companion, with additional fluency practice provided in leveled homework. Following the fluency practice, the "Do You Understand?" exercises address the conceptual understanding of the lesson/topic. For example, in Lesson 4-1, the guide states Exercises 1 and 2 of the Student Companion focus on the Do You Know How? by having students solve for missing side lengths using the algorithm $a^2+b^2=c^2$. The guide also states the next two exercises focusing on Do You Understand? are more application-based, one of them requiring a written response describing how to solve for the length of a diagonal and the other necessitating error analysis.

The materials provide an opportunity for fluency practice connected to concept development and expectations of the grade level; however, there is no evidence supporting a year-long plan to build fluency. The program partially uses rigor synonymously with fluency, stating that rigor means using algorithms flexibly, accurately, and efficiently. The materials provide opportunities throughout the year for this development through an emphasis on algorithms, which are practiced in the Do You Know HOW? exercises in the Student Companion, as well as the leveled homework exercises and mixed review homework exercises. For example, Lesson 5-5 prompts students, "Do you know how to find the amount of space inside of a ball?" Additionally, the material provides opportunities throughout the year for building fluency through building number sense with the "Prerequisite Lessons" and "Mixed Review Homework" exercises. For example, the Mixed Review exercise #2 in Lesson 6-1 asks students to solve a simple one-step equation by the subtraction property. Again, while the "Program Overview Guide" briefly discusses these opportunities, the program does not present a strategic, outlined plan that

supports monitoring students' progress in building fluency. In Topic 1, the material focuses on reviewing rational numbers and operations and incorporates irrational numbers. Each lesson within the topic has procedural and fluency practice within the Student Companion Guides. The last lesson of the topic is a mixed review of all concepts. This lesson is the only topic covered in the unit, and the "Unit Assessment" includes items from the content as well. None of the following units, topics, or lessons practice the content of Topic 1. The materials do not provide a year-long plan for building fluency that specifically describes fluency routines. However, the "Prerequisite Assessments" consistently act as a precursor to a lesson's increasing complexity in fluency to reach grade-level expectations. Additionally, the "Math Background" section includes procedural fluency suggestions for students. For example, the teacher guide for 6-1 states that students learned to solve one-step equations in sixth grade and two-step equations in seventh grade, and in eighth grade, students practice this fluency of using inverse operations and reverse order of operations. However, there is still no scope and sequence for building fluency routines. The Math Background provided in Lesson 6-2 builds on the previous topic and notes that these can be solved by collecting variable terms on either side of the equation and that the teacher helps students become more efficient by encouraging them to consider both options.

The material integrates fluency activities with the development of conceptual understanding through its Launch activities, Do You Know How? activities in the Student Companion guides, and Mixed Review Homework exercises. For example, the Launch activity for Lesson 7-2 asks students to decide whether two lines are parallel and to justify their reasoning. The Do You Know How? question of the same lesson asks students if they know how to use a diagram of parallel lines to find angle measures. On the Mixed Review Homework assignment, number 3 requires students to apply the concept of parallel lines to find a pair of corresponding angles given a parallelogram with a diagonal drawn through it. The Launch activities also provide opportunities for students to strategically and flexibly choose the appropriate strategies for grade-level tasks and efficiently and accurately solve these tasks by applying their conceptual understanding of number relationships and strategies. Launch activity 7-2 exemplifies such an open-ended multi-directional task. The materials provide fluency activities that build foundational skills to support students' conceptual understanding. Students practice algorithms for fluency with the Do You Know HOW? exercises in the Student Companion, as well as the leveled homework exercises and mixed review homework exercises. The materials also provide opportunities for students to develop efficient and accurate strategies for number facts and develop an understanding of algorithms to efficiently and accurately solve grade-level tasks. For example, Lesson 1-7 connects the concepts learned throughout the lesson and topic for exercise and practice. The materials support procedural fluency of recognizing expressions that result in rational and irrational numbers through pictorial representations. The materials provide fluency activities integrated with the conceptual understanding of activities/discourse. For example, in Lesson 12-2, the beginning focus question addresses how a single number can represent the variability of a collection of numbers. From there, the lesson uses diagrams to explore the calculation of M.A.D. with deviations placed on a dot plot. The teacher guide suggests asking students to consider why a dot plot is a useful way to organize the data and deviations, and the response to this question requires a conceptual understanding. While some

lessons and topics certainly require fluency, only the remediation activities provide guidance on arithmetic variations for students to choose from to complete grade-level tasks efficiently and accurately. The materials provide opportunities for students to choose strategies that will allow them to solve problems efficiently and accurately, which can be seen within teacher guides throughout each lesson's suggested discourse. For example, in Lesson 13-2, questions provided for the teacher include, "Why can't you write the same amount for interest every month?" and "What is a reasonable estimate for the final balance?" Neither question focuses on the strategy itself, but rather getting to a reasonable answer. Following each lesson, the materials provide homework for students to practice their fluency in their conceptual understandings. Each homework section gives students 4–6 numerical practice activities, as well as 9–11 problem-based tasks related to the conceptual understandings of the corresponding lesson. The homework practice for students allows them to apply appropriate strategies for solving tasks per the corresponding lesson. For example, the Volume of Cones lesson Launch encourages students to use patterns to determine the volume of the cones in the picture. The following practice asks students to choose the most efficient method for solving the problem strategically. The materials provide students with opportunities for applying conceptual understandings of number relationships within the lesson content. For example, the lesson Surface Area of Cylinders gives students opportunities to relate the cylinder formula to the prism formula learned in seventh grade, as well as to determine the appropriate formula for the situation.

The material provides guidance for determining if students need differentiated support through "Prerequisite Exercises" and teachers' "Lesson Guides." Homework is auto-differentiated with built-in tutor support and auto-grading and remediation. The program uses the Prerequisites Assessment results to assign students into leveled learning groups. This differentiation includes leveled homework and mixed practice that can be assigned to each student. The material supports teachers in scaffolding fluency activities by activating prior knowledge and building background knowledge. The program does not support teachers in extending fluency activities for meeting fluency expectations of the grade. Also, the content of the assessments is heavily weighted on application rather than computational fluency. For example, the Unit C Prerequisite Assessment includes several questions involving integer operations. Within this assessment, the teacher (and student, depending on their results) have access to associated remediation lessons such as i21-6, i21-5, and i21-4. The materials provide intervention lessons and practice activities for students who are not on target with the prerequisite and content lessons. According to the Overview Guide, the intervention lessons are combined into 18 different clusters that focus on number sense. They are designed to help students meet grade-level fluency expectations when working with whole numbers, decimals, and fractions. No evidence was found for extending grade-level fluency. Scaffolding opportunities are provided within the targeted intervention lessons. For example, in the lesson Exploring Scientific Notation, the lesson video models writing scientific notation using base-ten numbers in a table. The video starts with a basic number and then expands the table to demonstrate the scientific notation process.

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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.

Partially Meets 2/4

The materials support student development of mathematical language by highlighting targeted new and review vocabulary in each lesson, providing discussion opportunities for vocabulary understanding, and incorporating vocabulary routines within the review sections of each topic. However, daily lessons do not incorporate vocabulary routines, and the learning goals of the individual lessons do not list vocabulary acquisition. The material provides a strategic approach to develop mathematical vocabulary specifically for English Learners (ELs) through the use of visual and contextual support but does not provide such an approach for general education students. The learning goals for the lesson include the academic mathematical language of the lesson and sometimes address the development of these terms. Most times, however, learning goals or lesson objectives simply utilize the academic mathematical vocabulary while stating the intended outcome of the lesson. The materials provide scaffolding suggestions for ELs, but not for general education students to support the development and use of academic vocabulary in context. The "Program Overview Guide" includes other guidance and scaffolding suggestions for ELs. Each lesson introduces new and review academic vocabulary in the teacher guides. The material provides ample opportunity for students to listen and read academic mathematical vocabulary within and across lessons; however, it has limited opportunity for students to write with an emphasis on the use of academic mathematical vocabulary. The material sometimes offers teachers suggestions to support the use of academic vocabulary in context in the "Teaching Tips" section of "Lesson Guides." Each topic includes an interactive vocabulary review matching game. The "Student Companions" for topic reviews also include vocabulary review concept mappings. The material does not, however, include tasks that build from students' informal language to the formal language of mathematics by making explicit connections. While there are suggestions throughout lesson guides that support student discourse, there are no routines or any pattern of language acquisition. The material lacks scaffolding techniques for all populations outside of EL students.

Evidence includes but is not limited to:

The material provides a strategic approach to develop mathematical vocabulary specifically for ELs through the use of visual and contextual support. Teacher Lesson Guides provide teachers with the mathematical vocabulary terms for the lessons, along with mathematical words previously learned for review. However, they provide no guidance for the teacher on how to strategically incorporate the mathematical vocabulary into the lesson for general education students. The learning goals for the lesson include the academic mathematical language of the lesson and sometimes address the development of these terms. For example, the Lesson 2-1 lesson objective states "Graph proportional relationships, interpreting the unit rates as the slope of the graph." The interpretation of the new mathematical vocabulary 'unit rate' will be developed in terms of the previously learned mathematical vocabulary 'slope.' Most times, however, learning goals or lesson objectives simply utilize the academic mathematical vocabulary while stating the intended outcome of the lesson. For example, Lesson 4-1 has two lesson objectives: "1. Explore a proof of the Pythagorean Theorem and its converse: 2. Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions." The new academic vocabulary words in the lesson are theorem, Pythagorean Theorem, and proof. Following the "Lesson Objectives," the teacher guides introduce new and review vocabulary. Lesson "Key Concept" interactive resources introduce the vocabulary to the students. The material provides ample opportunity for students to listen and read academic mathematical vocabulary within and across lessons; however, it provides limited opportunity for students to write with an emphasis on the use of academic mathematical vocabulary. The digital resources include videos that sometimes clarify academic vocabulary, speak during vocabulary illustration, or read tasks to students using academic vocabulary. The Key Concept video of Lesson 3-4 speaks, illustrates, and writes the meaning of non-linear functions. Some questions in the Student Companion guides require students to write in the "Launch Reflection" and in the "Do You Understand?" sections. The same lesson, 3-4, asks students to respond to "Does the table in Exercise 2 represent a linear function? Explain." The Teacher Guide for each topic provides a list of vocabulary words organized by lesson. Additionally, at the beginning of the lesson Teacher Guides, the objective and essential questions contain key vocabulary for the units, and the vocabulary is consistently used in the teacher's guiding questions, as well as in sample responses or key points to make. For example, Lesson 11-1 lists the new vocabulary terms scatter plot, bivariate, and data; and review terms interpret, pattern, and points. While scatter plot and data are directly defined for students in the lesson, there is no mention of bivariate in the lesson or suggested inquiries from the teacher guide. The learning goals do not list vocabulary acquisition, except those found within the ELPS details.

Again, the materials provide scaffolding suggestions for ELs, but not for general education students to support the development and use of academic vocabulary in context. These suggestions are implicit in the ELPS that are included in each lesson. For example, Lesson 4-4 focuses on academic vocabulary terms theorem and Pythagorean Theorem, and reviews

distance, coordinate plane, right triangle, hypotenuse, and leg. The English Language Proficiency standard 4F guides teachers by suggesting they "use visual and contextual support…[to] develop vocabulary…needed to comprehend increasingly challenging language." The "Program Overview Guide" includes other guidance and scaffolding suggestions for ELs. The material sometimes offers teachers suggestions to support the use of academic vocabulary in context in the "Teaching Tips" section of Lesson Guides. For example, in Lesson 4-4, a teaching tip suggests that teachers can tell students they can always find a distance by thinking of it as the hypotenuse of a right triangle. The Student Companions for topic reviews also include "Vocabulary Review Concept Mappings," such as the Frayer Model. For example, Topic 2 prompts students to "Identify two challenging vocabulary terms from this topic. Write one vocabulary term in the center oval, and fill in the surrounding boxes with details that will help you better understand them." The workspace includes two Frayer Models for the students to use to complete this task. Though these tasks exist, there is no explicit instruction or guidance for the teacher to set these as classroom routines. The material does not include tasks that build from students' informal language to the formal language of mathematics by making explicit connections.

While the materials provide scripted teacher supports explaining and discussing vocabulary, the only vocabulary routines implemented are the "Vocabulary Review Games" at the end of each Topic. Daily lessons do not incorporate vocabulary routines. The materials support building student vocabulary by having students write about the vocabulary words at the end of each topic. For example, the Student Companion's "Topic Review" section has a place for students to expand on challenging vocabulary words by writing the word, the definition, informal explanation/characteristics, an example, and a nonexample. Following the routine of utilizing the "Launch" and "Focus Questions," as described in the Overview Guide, the materials guide the teacher to start lessons by introducing new terms and connecting previously learned terms to the new content. The materials build from students' informal language to the formal language of mathematics by making explicit connections. Student Companion activities typically include questions requiring students to explain their thinking or make connections between learned content and real-world questions. In most cases, these require students to write in complete sentences to convey information. For example, in Lesson 5-1, all three parts of the lesson include Before, During, and After questions for the teacher to engage with student discourse, and the Student Companion guide includes "Do you UNDERSTAND?" questions, such as "Describe how George can find the surface area he will paint."

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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

Materials provide problems within each lesson for students to apply new and existing mathematical knowledge and skills to solve real-world problems to help students connect mathematical concepts to their everyday life. The program provides opportunities for students to solve real-world problems throughout the lessons. Prerequisite activities embed mathematics lessons in real-world contexts; real-world application problems are also embedded in the launch activities, guided practice activities (the interactive parts of the lesson), and homework problems. “Launch” activities are open-ended and require students to integrate knowledge and skills to make sense of a context and develop efficient solution strategies. While not all lessons provide data analysis opportunities, some do include opportunities for students to analyze data in a variety of thematically and grade-level appropriate contexts. These opportunities can be found in various components of the lessons. Additionally, there are opportunities embedded throughout the program enabling students to read and interpret graphs and tables with information regarding real-world situations and apply them to current learning. Additionally, the materials contain cross-curricular references within the mathematical word problems. They display real-world data and scenarios using pictures/videos, tables, and graphs and include the opportunity to research data in the enrichment projects for mathematical purposes.

Evidence includes but is not limited to:

The program provides opportunities for students to solve real-world problems throughout the lessons. “Prerequisite Activities” embed mathematics lessons in real-world contexts, for example, Prerequisite Activity r1 reviews skills necessary for developing fluency with rational

and irrational numbers through analyzing architectural data of skyscrapers; Prerequisite Activity r3 reviews skills necessary for defining and comparing functions while solving problems involving skydiving; Prerequisite Activity r11 reviews skills necessary for creating and understanding scatter plots by having students apply coordinate graphing to marching band movements. In addition to prerequisite activities, real-world application problems are embedded in the "Launch" activities, guided practice activities, the interactive parts of the lesson, and homework problems. Most Launch activities are open-ended and require students to integrate knowledge and skills to make sense of a context and develop efficient solution strategies. For example, the Launch Activity 2-3 requires students to compare architectural designs. Launch Activity 10-1 prompts students to investigate scaling patterns in art. Launch Activity 12-3 requires students to analyze the benefits of sampling when picking students for kickball teams in the gym. The materials provide opportunities for students to apply their knowledge and skills from multiple units and previous grade levels in problem-solving tasks. For example, the "Do You UNDERSTAND?" portion of the lesson in the Student Companion includes exercises that require students to analyze, justify, explain, and check for reasonableness. In Lesson 13-2, the writing question states "What are some important factors to consider when planning your long-term savings investment? Explain why they are important," requiring the students to work through the problem-solving process to complete.

The materials require students to integrate knowledge acquired in previous grades and topics to make sense of a problem and solve the problems efficiently and accurately. For example, the "Enrichment" projects for each topic require accessing and activating prior knowledge. In Topic 1, students must consider rational numbers and how to treat irrational numbers, in addition to recalling the grade 6 concept of calculating the circumference or area of a circle. In the Topic 10 Enrichment project, students work with map scales, and they must access the concept of ratios and equivalent expressions, as previously learned in grades 6 and 7. The materials contain multi-step problem-solving opportunities for students to integrate knowledge and skills efficiently. For example, when working with the slope of a line, students are encouraged to use their knowledge of ratios and proportional relationships to relate slope to unit rates.

Students are provided data analysis opportunities in a variety of thematically and grade-level appropriate contexts. These opportunities can be found in various components of the lessons, such as the Enrichment, Prerequisite, or Lesson part activities. For example, Prerequisite Activity r1 provides opportunities for students to analyze architectural data of skyscrapers. Lesson 2-2, Part 1, requires students to analyze a graph of the speed of a train. Lesson 3-3, Part 3, requires students to solve problems involving data that present the length of a shark according to its age. The Topic 6 Enrichment Project calls for students to research, collect, and analyze data involving mass transit systems in the United States. The materials provide opportunities for students to analyze data from other content areas and data from the news, provided in grade-appropriate graphs and tables in a way that helps them better understand or draw conclusions about their world. For example, the opening of many units contains data to spark student interest in the topic of the unit. Lesson 1-1 begins its Launch with a table requiring students to chart the information they were finding. Lesson 13-2 starts with a table

comparing two accounts over time. The materials provide opportunities for students to analyze data from real-world contexts in multiple subject areas, such as science, sports, and social studies. The materials present the opportunities in a grade-level appropriate way, using pictures, tables, and graphs. For example, the Student Companion from Lesson 1-5 covers the process of using scientific notation to describe large quantities. Within this lesson, there are real-world problems that relate to the size of an ant colony, astronomical distances, and the world record for aircraft speed. In Lesson 12-4, students use central measures of tendency to analyze two sets of basketball scores and, in another problem, examine annual income averages from two different cities to determine the better option for employment. Pictures, tables, and graphs can frequently be found throughout all topics. Additionally, the enrichment projects contain research tasks that, in most cases, require looking up real-world data online. The materials provide opportunities for students to analyze data in real-world contexts. For example, in response to TEKS 7.11 (A & C), students are presented with data from scientific tracking of animal populations, as well as the speed and distance of Olympic runners. This data is presented in the form of charts and graphs for students to analyze.

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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.

Partially Meets 2/4

Materials are supported by research on how students develop mathematical understandings. The materials partially meet this indicator, as it is clear that a team of authors, researchers, and professors developed this material; however, there are limited citations on the research used to create this material or the ideals on which it is based. The publisher explicitly indicates that some of the components of its material are based on research. The "Program Overview Guide" does have a bibliography specifically for its English Learner (EL) strategies; however, it does not specify the research referenced for each component. Supporting research to meet the needs of ELs is warranted. However, the program does not describe the content and demographics of other Texas-specific demographics. The material does not provide a bibliography for the general structure of the materials and provides little guidance on what specific research-based strategies are used for lessons and tasks. While the material does not cite publications for the strategies embedded in the program, it cites the published works of the authors of the program, which adds validity to the publisher's suggested approach. The "Authors and Advisors" section of the program overview provides a description of the expertise provided by authors and advisors of the material.

Evidence includes but is not limited to:

The publisher explicitly indicates that the following components of its material are based on research, for example, problem-based interactive learning, as cited in the Overview Guide:

principles for building EL lessons, as noted in the Overview Guide and the intervention lessons in the Overview Guide. The Program Overview Guide does have a bibliography specifically for its EL strategies; however, it does not specify the research referenced for each component. The publisher provides a thorough description of their program but provides few research citations for the general framework in the teacher guides or lessons. However, the materials provide significant research citations for the ELPS framework. For example, the Program Overview provides a bibliography for the overview of the EL-directed framework of instruction within the materials, as well as the philosophy of building mathematical understanding with EL students. The Program Overview guide cites eleven different authors and advisors of the Digits program, many of whom are published authors, professors, and researchers in the fields of K–12 Mathematics. For example, Francis (Skip) Fennell served as NCTM President and was a writer for the NCTM Focal Points. He was also a writer for Principles and Standards for School Mathematics. The program overview uses the term "research shows" on multiple occasions; however, it does not cite the research referenced. For example, "Research shows that introducing new ideas by having students solve problems in which those ideas are embedded develops deeper understanding than other methods," but the text does not cite the research.

While the materials provide guidance for instruction to enrich the educators' understanding of mathematical concepts, they do not cite supporting research, nor do the materials cite research that would support the educators' understanding of the validity of recommended approaches. The materials do not cite or reference research outside of the extensive citation for EL-directed instruction. However, the program overview lists the authors and advisors with a background for each individual. The authors and advisors have published articles and books; this information enriches the educator's understanding of the validity of the publisher's approach. For example, the Program Overview states that one of the authors, Helene Sherman, co-authored the book *Teaching Learners Who Struggle with Mathematics*, published by Merrill. Another author, Art Johnson, has published numerous books, including *Teaching Mathematics to Culturally and Linguistically Diverse Students, Teaching Today's Mathematics in the Middle Grades,* and *Guiding Children's Learning of Mathematics, K–6*. Several other authors and advisors have published works or worked for NCTM. The Program Overview states that approaches are research-based to enrich the educator's understanding of the validity of the curriculum's approach, yet the materials do not make a formal reference to specific research. For example, when referencing problem-based learning in the "Rigor" section of the Program Overview, the materials state, "Research shows that introducing new ideas by having students solve problems in which those ideas are embedded develops deeper understanding than other methods." In the "Math Background" section of the "Teacher Guides," each lesson provides information regarding previous lessons, the focus of the current lesson, and what concepts the lesson builds toward. The TEKS and ELPS are cited; however, there is no research-based guidance cited for the lessons.

The material only cites research for EL strategies; that research is current and relevant to its targeted subpopulation in developing mathematical skills. According to the Texas Education Agency Division of Research and Analysis, ELs account for approximately 19% of all Texas

students as of 2019; thus, supporting research to meet the needs of this demographic is warranted. However, the program does not describe the content and demographics of other Texas-specific demographics. There is no evidence of cited research regarding the development of mathematics. The cited research, limited to EL instruction, ranges from 10 to nearly 30 years old and is therefore not based on current research or practices. It should be noted that the material was written in approximately 2013, so some of the research would be considered current at the time of publishing. The program does a thorough job of addressing the instruction for the EL population, which makes up one of the largest sub-populations of public school students in Texas. The Program Overview lists the TEKS and ELPS addressed in each topic. The Program Overview Guide cites references for foundational research regarding ELPS instruction. There are 27 citations of published articles and papers that range from 1981 to as current as 2008. While The Program Overview lists these references, they are not cited within the program materials. There is no research cited for the structure of the entire program.

There is no evidence that a bibliography is present. The material contains a bibliography for EL strategies in the Overview Guide. The materials include a bibliography only for EL-directed instruction and practices in the program overview. Additionally, there are references to books published by the authors of the material, yet no formal bibliography for teaching strategies of the general curriculum. The materials contain a bibliography within the ELPS section of the Overview Guide; however, a bibliography for the entire program is not available.

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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.

Partially Meets 2/4

The materials present a partial model but do not present a complete model, as outlined in the TEKS. The material does not teach a specific problem-solving model; however, it does include prompts for students to apply problem-solving strategies through multi-step problems that support the development and practice of problem-solving. These multi-step problems occur throughout the lesson components, such as in the "Pulling It All Together" sections and the "Enrichment Projects." The material includes problem-solving opportunities that guide students to use models, find solutions, justify their responses, and check for the reasonableness of their solution. The "Student Companion Guides" sometimes provides prompts for students to reflect on their approach to problem-solving. "Teacher Guides" for lessons provide guidance for teachers to support student reflection of an approach to problem-solving through questioning. The materials also provide problem-solving models/organizers in the curriculum, such as the "Know-Need-Plan" or "Think -Write Organizer." While the toolbar allows students to access blank organizers, they are not prevalent throughout the materials as a reminder directly to students to use during problem solving. Additionally, the Teacher Guides provide many guiding and reflecting questions on the solutions and approaches students take when solving problems, yet the material lacks prompts provided directly to students on their approach or any formal reflection. The problem-solving model does not provide steps for reflection on the student's approach to solving problems or the solution itself. There are opportunities incorporated throughout the materials to promote the discussion and discourse of problem-solving, and there are guiding topics to support teachers in asking the appropriate questions to steer the discussion in the direction of what good problem-solvers should think. However, the lack of a specific or complete model keeps this indicator from being Meets.

Evidence includes but is not limited to:

According to the "Program Overview Guide," the program builds to the TEKS, which "requires a synthesis of both the mathematical process standards and the mathematical content standards…the process standards identify the attributes of mathematical thinking that teachers of all grades need to reinforce." There are multiple opportunities for students to practice problem-solving. The last lesson within each topic throughout the program is an "Additional Problem Solving Practice," tying all the skills from the topic together. Additionally, the guiding questions in the teacher guides are conducive to developing problem-solving skills. The materials introduce the Know-Need-Plan problem-solving organizer early in the curriculum and include a solution diagram explaining how to use the organizer, as well as providing a wide array of opportunities to practice and apply the problem-solving organizer. It provides a blank organizer, and the teacher guide provides a suggestion to help guide students. Additionally, the solution box provides a sample completed organizer, along with a step-by-step solution process. The toolbar provides "Grids and Organizers" to assist students in problem solving. The blank organizers/models include the Know-Need-Plan Model, Think-Write Model, "Words-to-Expression/Equation/Inequality," and several types of Venn diagrams. The teacher guide gives instructions on how to apply them to a specific problem. The problem-solving organizer provides opportunities for students to practice, and the model is primarily grounded in the problem-solving process standards provided in the TEKS, although it lacks reflection on the justification of the solution and evaluation of the process and a check for reasonableness. For example, the Know-Need-Plan model requires analyzing the information given and formulating a plan to solve for what is needed to determine the solution. However, the model stops at the formulation of the plan. Even though a Universal Problem Solving Model is not explicitly introduced or supported throughout the curriculum, students are given opportunities within each lesson to Understand the problem, Make a plan to solve the problem, Solve the problem, and Communicate their solution. For example, the teacher guide for each lesson provides scripted questions for understanding to be stated Before, During, and After solving the problem. The "Launch" section of Lesson 5-5 provides guiding questions for the teacher to state before, during, and after the problem. Teachers then encourage students to share solutions, make predictions on possible correct and incorrect solutions, and then verify their predictions or justify and evaluate the reasonableness of the solution.

The material does not teach a specific problem-solving model across concepts; however, it does include prompts for students to apply problem-solving strategies. There are several opportunities throughout the program prompting and supporting the teacher and student to apply a problem-solving process, though the materials do not contain support for how to utilize a specific problem-solving model. For example, the materials include Additional Problem Solving lessons after a topic. For example, the student companion guides have "Do you know HOW?" and "Do you understand?" questions. These questions are generally written in a way to address topics found in the problem-solving process. Several times, it states "Explain" or "Why does this process work?" While there are student prompts within the material to apply the

problem-solving model, they are not provided directly to students consistently across all lessons or topics. When looking through the teacher guides, there are frequent suggestions to use the Know-Need-Plan organizer across the topics, primarily with ELPS and struggling learners. For example, Lesson 9-5 provides a blank organizer within the student module and gives a suggested solution for completing the organizer with the problem given when students click on the solution button, along with an in-depth solution process. This example is one of a few instances where blank organizers or prompts are given directly to students in the module, but it should be noted there is consistent mention of using the organizer embedded in the teacher guides, which would be communicated to students.

The materials include guidance on ways to prompt student reflection about their approach to problem-solving. For example, the student companion guide's inclusion of the Do you know how? and Do you understand? questions exemplifies how to use a problem-solving process. They are given opportunities to correct incorrect thinking, explain a process they used, justify solutions, identify problems, and select tools to help their solution process. While the materials provide opportunities for reflection on topics themselves, the materials lack prompts provided to the student directly for reflection on their problem-solving approaches. It should be noted that there are prompts given to the teacher that are directed toward student reflection of problem solving for all lessons.

The materials provide a significant amount of reflection prompts throughout all teacher guides. Each lesson contains parts that include problem-solving, and the Teacher Guides include reflection questions before, during, and after problem-solving. For example, Lesson 1-3 asks students to place inequality or equal symbols between two numbers. The teacher guide provides a question to pose to students before solving the problem, "What strategy can you use to compare these numbers?" The prompt provided for reflection after solving is, "How could you have known that none of the statements would use the equal sign?" The materials provide teacher support for guiding students through problem-solving by giving teachers instructional cues within the "Solution Notes" of the Teacher Guide for each lesson. For example, in the Teacher Guide, the materials provide guiding questions for understanding for use before, during, and after approaching different phases of the lesson. These questions are exploratory in nature. In Lesson 3-5, the question listed before solving the problem in Part 2 is "Given your understanding of linear equations, what would you expect for the rate of change in the table? How do you know?", requiring students to reflect on prior knowledge, make predictions, and make connections to multiple representations. Additionally, Lesson 5-1 encourages the teacher to have students use a Know-Need-Plan organizer, as presented in the "Solution Notes" of the Launch problem for this section.

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

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

Meets 4/4

The materials provide opportunities for students to select appropriate tools for the task, concept development, and grade. The materials provide students with on-demand virtual tools that are appropriate for the grade-level. The materials provide teachers with support in working with the tools. Materials teach students how to use the tools and give them opportunities to select the appropriate tool for the task. The materials provide online manipulatives, referred to as the "Math Tools," accessible to teachers and students through all modules. When a tool is appropriate for a specific lesson, the lesson will walk students through the use of the tool, primarily through a demonstrative video, and the "Teacher Guide" provides an expansion on how to use the tool and its appropriateness. Materials provide students with opportunities to select tools when problem solving, through the completion of homework and review tasks. Teacher Guides provide insight to teachers on tool use, often with specific application details for a problem, and suggestions on when the tools may be appropriate for struggling learners. The material does lack hands-on tools and manipulatives and instead has a primary focus on digital tools.

Evidence includes but is not limited to:

The materials provide virtual tools for students to access on-demand for solving tasks and understanding concepts. For example, materials provide students with access to virtual manipulatives such as number lines, algebra tiles, pan balances, coordinate plane grapher, and

a calculator. The materials provide opportunities for students to select the appropriate virtual tool to use to solve a task. For example, in Lesson 2-4, the sections of the lesson progress through using the Coordinate Grapher and Data & Graphs Tool to find the slope of a line. Students can then select the type of tool to use when solving homework problems. The materials provide students with opportunities to learn to use representations from the grade-level TEKS to solve tasks and enhance student understanding of concepts by exploring mathematical ideas and making and testing conjectures. For example, several lessons use pictorial representations. The materials provide students opportunities to select grade-appropriate tools for solving tasks. For example, the resource provides all students access to "Math Tools," which contains number lines, place-value blocks, area models, fraction and percent models, integer chips, algebra tiles, pan balance, coordinate grapher, 2-D shapes and 3-D figures, data and graphs, probability tools (such as spinners and dice), and a calculator. The materials provide students with opportunities to learn how to use grade-appropriate online manipulatives and algorithms for solving tasks and enhancing conceptual understanding. However, the materials lack hands-on manipulatives and the use of real objects for concept development. For example, the first bullet point of the "Key Concepts" section of Lesson 12-1 shows a visual representation that uses cubes to display the values from a data set and follows with a demonstration of how to reallocate the cubes to find the mean of the data set. The following bullet then defines "mean" and provides an algorithm and display of how to use the formula on the same data set.

The materials provide grade-appropriate technology for assisting students in solving problems. For example, students have continual, on-demand access to virtual manipulatives that align with grade-level TEKS, such as number lines, area models, coordinate plane grapher, calculator, and 2D/3D models. The content lesson models the use of these virtual manipulatives. The materials provide students with opportunities to learn how to use grade-appropriate technology for solving tasks provided in the toolbar throughout all modules. The online manipulatives enhance conceptual understanding as well. For example, Part 1 of Lesson 6-2 asks students to use virtual algebra tiles to solve an equation with variables on both sides. While the student should be familiar with algebra tiles or a pan balance from previous grades, the solution button provides a demonstration video on how to solve the problem using the online manipulative. The materials provide a virtual toolbox of manipulatives that allow students to use representations from the grade-level TEKS (to name a few: area models, algebra tiles, coordinate graphs, 2D and 3D models, and pan balance). The materials provide this toolbar throughout all of the publisher's lessons. The materials provide opportunities for students to choose grade-level appropriate tools for solving problems, including technology tools. In Lesson 10-2, the problem provided in Part 2 has suggestions in the Teacher Guide in which students can physically trace the movement of vertices to determine the type of transformation or use the "Building Figures" tool provided in the online materials. Also, within each lesson, students have the opportunity to take what they have learned in the lesson, including the use of mathematical tools, and select tools to apply when completing their homework and review tasks. For example, each lesson contains a homework assignment where students can select the appropriate on-demand tool for working through the problem

independently. However, the materials provide some limits in the opportunities for students to select grade-appropriate technology tools for solving tasks. For example, the Math Tools provides a basic function calculator, but the specificity listed in the TEKS states the necessity of implementing graphing technology.

The materials provide guidance for suggested tools with explanations of how to use and discuss the tools with students. The “Solution Notes” section of the Teacher Guide provides teachers with guidance on how to use the virtual tool. Lessons that include the use of the virtual tool also include a video modeling the use of the virtual tool. The materials explain how students will use the virtual tools, as well as give information regarding the use of virtual tools from previous grades. For example, the “Math Background” section of the Teacher Guide gives teachers detailed information regarding the use of any virtual tools from grade 7 and introduces the tools for grade 8. For example, the Teacher Guide for Lesson 1-1 states, “Using the Number Line tool, explain that you can find every real number on the number line and every point on the number line corresponds to a real number.” Additionally, other sections of the Lesson 1-1 Teacher Guide provide insight, in particular, expanding on the concept that a number line consists of infinite numbers, and there are no gaps. The Teacher Guides provide specific suggestions within lessons, detailing which tool students could use to complete a task and how they can use the tool. For example, for Part 4 in Lesson 2-6, the Teacher Guide suggests that struggling students use the Coordinate Grapher tool to help write an equation for a line. The material provides specific detail on the tool use and how it connects to the TEKS objective for the topic.

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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 strategies for the work, concept development, and grade, and guides teachers through introducing and utilizing strategies. The material teaches multiple strategies for many of the topics and provides frequent opportunities for students to choose from strategies when solving problems throughout each lesson. Materials give teachers guidance to support students in choosing a strategy and building on their knowledge to move toward more efficient strategies throughout the units. The “Teacher Guides” provide prompts aimed at analyzing strategies, followed by sample answers regarding possible approaches students may have chosen and how to respond to those approaches through class discussion. The online curriculum presents students with opportunities to demonstrate their understanding of the concepts using varying strategies for problem solving.

Evidence includes but is not limited to:

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. The materials cue students to select techniques when solving tasks or problems, as well as support students in selecting appropriate techniques when solving tasks through prompts provided by the teacher. For example, Lesson 2-4 provides students with a graph and asks them to determine how many ounces of cheese they can make using a gallon of milk. Students can choose the technique they would like to use to solve the problem, and additional information is

given to the student if they need extra support by clicking the “Ask Lisa” button. The button displays a video of “Lisa” giving a further explanation on the relationship between slope and unit rate. For example, Lesson 6-1 asks students to determine a fee for services based on given information. The teacher guide provides prompts for students Before, During, and After a task/problem. The During prompt specifically asks, “How can you organize the information in the problem?” with provided sample answers such as make a chart, cross out bills, or set up an equation. This type of guidance is provided consistently across all lessons. Lesson 8-5 has another example, in which the material prompts students to solve the system of equations by using the substitution technique. The materials include prompts that require students to select a technique for solving a task. For example, Lesson 2-1, Part 1, gives the situation and asks the question, “You have $21. How many raffle tickets can you buy?” The solution could be determined with the use of a table or graph, ratio table, or other techniques involving number sense and number relations, as well as estimations.

The Teacher Guide “Additional Problem Solving” sections contain examples of support for teachers in helping students to understand appropriate strategies. Lesson 7-6 directs teachers to instruct students to determine angle relationships by determining if the problem is about angles formed by parallel lines and transversals, about interior or exterior angles of triangles, or about similar triangles. Lesson 8-5 has another example in which the material prompts teachers to ask students, “Would you prefer to solve the system by graphing or by substitution?” Then, materials provide teachers with the following information as the answer to expect: “Substitution. The equations are both solved for t, so it is easy to substitute for t from one equation to the other. Drawing an accurate graph of the equation $t = 99 - 3.5m$ could be hard to do because of the large y-intercept and the decimal value for the slope.” The Teacher Guides regularly provide navigation through appropriate strategies for solving a task or problem. For example, within the Teacher Guides, the “Math Background” section details the progression of the concepts, not only from previous to current to future grade levels but also within the lesson or topic itself, often with a mention of how students move toward more efficient strategies as conceptual knowledge grows. The Teacher Guides provide the teacher with prompts for students to consider their approaches and develop more efficient strategies when solving tasks and problems, particularly in the After questioning for each task. For example, in Lesson 1-2, students learn to approximate square roots. At the beginning of the lesson, students are given directions to approximate the square root of 33, and the teacher guidance provided for that task directs the teacher to “invite students to use their number sense to predict [the] length.” The same lesson gives the teacher the following prompt for students to consider: “When should you stop refining your approximation of an irrational number?” Another example, the Teacher Guide for Topic 2, explains that “gaining competence with linear equations helps students to communicate mathematical ideas, reasoning, and their implications using multiple representations including symbols, diagrams, graphs, and language as appropriate.” The topic explores the relationships between proportional relationships and linear equations. In another example, the “Solution Notes” of the Teacher Guide gives instructors information regarding student understanding within the task, the possible techniques to solve the task, as well as guidance regarding the efficiency of the methods.

The materials support students in learning multiple strategies to solve problems of the same type and provide opportunities to choose from multiple strategies when problem solving. For example, Lesson 5-1 begins with students drawing a net and using the net to find the lateral surface area of a cube. As the lesson progresses, students build on their understanding of the figure by learning the formulas in the key concepts section and relating the formulas to calculations using a net. The “Author’s Intent” section states that students may choose a method, such as finding the area of each side and summing the areas or using a formula from previous grades. The same Teacher Guide provides significant guidance to teachers to assist and support students in solving the problem in Part 2. Suggestions include encouraging students to draw and label a diagram to represent the problem, allowing students to solve with just the formula, and suggesting the use of the 3D modeling tool. The materials support student learning as well, as they give them opportunities to solve problems by using multiple appropriate strategies. For example, the Teacher Guide gives instructors information on how to teach students to use a pan balance, algebra tiles, and properties of equality for solving equations. For example, students are given virtual manipulatives such as a pan balance and algebra tiles and encouraged by the supports in the Teacher Guide to select the appropriate tool to solve equations within the lesson.

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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 support teachers in building students' self-efficacy during concept attainment through the use of guiding questions before, during, and after each part of the lessons. The materials are sequentially organized to allow students to gradually build knowledge while guiding students through productive struggle when problem-solving. Each "Teacher Guide" contains "Solution Notes" that offer additional guidance, ideas, and specific error correction to realign students' understanding and guide them toward strategy building. The tasks provide opportunities for multiple pathways of problem solving, along with possible pathways provided in the Teachers Guides. The materials provide support for teachers to ensure all students are actively learning by providing explicit directives in the "Fostering Student Engagement" sections of the lesson Teacher Guides. The materials use real-life context when introducing topics and presenting problems, thereby making it more meaningful and engaging for students. The "Launch" sections provide a center point where students may see themselves as mathematical thinkers at the start of each lesson, as introduction videos do include a breadth of diversity. The scripted materials for the teacher provide guided instruction on using multiple strategies. The materials provide multiple opportunities for students to experience mathematics in real-world problems in order to connect their learning to applicable fields of study.

Evidence includes but is not limited to:

The materials provide opportunities for students to solve problems in multiple ways, utilizing a variety of tools and strategies, and develop efficient ways, not just a set of memorizable procedures. For example, each topic includes an "Enrichment Project." Students apply their

current thinking and any previously learned mathematical techniques to solve the tasks. Students can work independently or cooperatively to develop strategies to work toward the solution. Key strategies for the development of the mathematics within the chapter can be posted in the room for reference. The materials also provide norms for engaging in mathematics as an act of creativity and experimentation. The materials use real-life context when introducing topics and presenting problems, thereby making it more meaningful and engaging for students because they can draw from everyday life experiences and are more invested in the topics and problems. For example, the majority of the topic opener and Launch sections provide a center point where students may see themselves as mathematical thinkers, with introduction videos that include a diverse cast. Each lesson contains videos where individuals explain upcoming topics and concepts or offer guidance when solving a problem. These individuals represent all Texas demographics. The materials provide opportunities for students to participate and engage with the material and explain their thinking as a community. For example, each lesson includes a section titled Fostering Student Engagement where students can share their ideas and discuss with their peers. Teachers are provided with appropriate supports for monitoring student discussions regarding the content. The materials support student self-efficacy by providing writing prompts for students to check their understanding of the material. For example, the “Student Companion” section of each lesson includes a “How do you KNOW/Do you Understand” section where students can reflect on their understanding of the content.

The materials provide tasks that allow students to choose from multiple pathways to problem solve by choosing the methods and tools they have learned. The scripted materials for the teacher provide guided instruction on using multiple strategies. For example, the Launch section of each lesson provides students with a real-world problem in which they must come up with a solution to the problem. The lesson presents the problem to students before the lesson, which allows students to apply a divergent approach to problem solving. The Teacher Guide for the Launch section provides a scripted dialog for the teacher to provide before, during, and after the problem to allow students to see and work with multiple pathways to a solution. The materials provide multiple opportunities for students to experience mathematics in real-world problems to connect their learning to applicable fields of study. For example, each lesson includes 2–3 sections of problems. The first set introduces the problem in simplistic terms, while the second or third applies the content to a real-world problem. The Teacher Guides, often in the Solution Notes section, provide possible pathways for students and discussion prompts that lead to class discussion of various approaches taken by classmates. For example, in Lesson 1-4, students begin the lesson by comparing numbers in both scientific and standard notation. The solution notes state that some students may have chosen to convert all numbers to standard form or all to scientific notation and that the teacher should discuss which form students prefer. The solution notes for the Lesson 7-2 Launch, where students try to prove lines are parallel, explains that “there are several ways to approach this problem not to mention an infinite number of lines and segments they could construct to show that the distance between lines is always the same” and that teachers should encourage students to question the accuracy of the measurements they make. The materials showcase mathematics as a field of study with a

focus on problem-solving with efficient and generalizable strategies, as opposed to presenting mathematics as algorithms and procedures to memorize. For example, each Topic contains an enrichment activity with a real-world open-ended task where students use their mathematical knowledge from previous and current grades to create a work product that aligns with the project requirements. Students gather data, apply mathematical strategies, and present the final work product to peers or family. The materials provide opportunities for students to solve problems in multiple ways, utilizing a variety of tools and strategies, and develop efficient ways, not just a set of memorizable procedures. For example, each topic includes an "Enrichment Project." Students apply their current thinking and any previously learned mathematical techniques to solve the tasks. Students can work independently or cooperatively to develop strategies to work toward the solution. Key strategies for the development of the mathematics within the chapter can be posted in the room for reference. The materials also provide norms for engaging in mathematics as an act of creativity and experimentation.

The teacher guides that accompany each topic and lesson guide teachers on facilitating the sharing of students' approaches to problem solving. The materials include questioning techniques that provide scripted questions for the teachers and potential student responses that indicate students' understanding of the information or concept. For example, in Lesson 1-2, the Teacher Guide instructs teachers to ask students, "How can you estimate the side length of the new triangle?" The materials support teachers in setting up tasks that promote divergent thinking when appropriate in sections such as Fostering Student Engagement, "Teaching Tips for the Key Concept," and "Connect Your Learning." Lesson 2-3 provides the teacher the following support, "Since students need to find the slope and then interpret the result to make a decision about a real-world situation, call on students to fill in each part of the blank Know-Need-Plan organizer." In this case, the students use their own reasoning skills to interpret the results of a slope in a real-world situation, allowing for divergent thinking. "Solution Notes" provide support for teachers in sequencing the discussion of student strategies. For example, in Lesson 2-4, the guide provides the following as a solution note, "Some students may divide a y-value by its corresponding x-value and think that this ratio represents the slope. Clarify that such a procedure only works for proportional relationships—lines that pass through (0, 0). For each of the lines in this graph, students should find the ratio of rise to run, or the change in y-coordinates divided by the change in x-coordinates." The materials provide directions to teachers on how to set up the discussion of student solution strategies to further student learning of mathematics by carefully sequencing student strategies to allow for student connections between the strategies. For example, the Teacher Guides provide suggested questions for before, during, and after instruction; anticipated students' misconceptions; and how to address them. Additionally, Teacher Guides also provide suggested solution strategies to guide teacher facilitation of student problem-solving.

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

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

Meets 4/4

The materials prompt students to effectively communicate mathematical ideas, reasoning, and their implications using multiple representations. The materials provide students opportunities to communicate mathematical ideas throughout the lessons, including presenting findings from "Enrichment Projects" and in lesson parts on "Student Companion" guides. The Enrichment Projects give students various modes to present their work, as well as directions to communicate their ideas, process, and findings to family and friends. The materials have frequent opportunities and prompts to work with classmates. The materials contain tasks that can be solved using a variety of mathematical representations and provide opportunities for students to use representations to organize and show their thinking in words, symbols, tables, graphs, and other illustrative diagrams. The materials provide guidance for the teacher in the "Teacher Guides" that accompany each lesson. The Teacher Guides contain tips and strategies on how to elicit students' communication of mathematical ideas, prompt students to use multiple representations as they communicate their reasoning, and support the development of students' mathematical vocabulary. Most of the guidance supports include questions requiring students to communicate their responses in oral or written form. Other prompts guide teachers to have students communicate their ideas in various other representations

Evidence includes but is not limited to:

The materials include tasks that provide students with opportunities to share and discuss mathematical ideas and representations using visual, physical, contextual, verbal, and symbolic representations. For example, each topic throughout the materials includes an "Enrichment Project." For Topic 4, the project *Pythagorean Advertising* requires students to design a

billboard to sell televisions. Students will research televisions and size availability, then use the information to calculate dimensions, and design their billboard. Collecting the dimensions, students can organize data in whatever way works best for them, using tables or graphs as appropriate. The Enrichment Projects of each topic ask students to showcase their knowledge through various mediums. Some mediums consist of drawing bulletins composed of rectangles in Topic 4, printing out online research and verbally communicating findings in Topic 13, and writing equations to represent researched data in Topic 6. The Enrichment Projects also have students review their process and findings with family members or friends, and typically entail communication with classmates.

The materials provide suggestions and prompts for teachers to encourage students to communicate mathematical ideas, reason with multiple representations, and develop mathematical vocabulary. For example, the Teacher Guides include focus questions, guiding questions, and embedded mathematical vocabulary. In Lesson 4-2, the focus question asks "When you know the lengths of two sides of a right triangle, how do you find the third?"—requiring students to communicate a mathematical process using the Pythagorean Theorem. The before/during/after questions utilized throughout the lesson encourage the use of multiple processes and strategies to relate to the theorem. The "Key Concepts" component of the lesson introduces the mathematical vocabulary for the lessons, and the questions reiterate these terms. Some of the questions encourage students to verbally communicate whether solutions are right and why. The materials provide teachers with a vast number of prompts that promote mathematical communication both orally and in writing. For example, all lesson Teacher Guides include discussion prompts for each lesson part before, during, and after tasks/problems. These discussion prompts also encourage students to record mathematical thoughts and processes on their student companion sheets or digitally. The materials supply teachers with guiding prompts that support students by strengthening students' understanding when working with multiple task-appropriate representations. For example, the Teacher Guide for Lesson 1-5 provides the teacher with guiding questions that assist in the concept attainment of relating standard form to scientific form, with a focus on the attainment of conceptual understanding on the necessity of both forms. The materials provide additional support in the teacher guides as students acquire vocabulary in the Key Concepts section and throughout other parts of the lesson. The materials include prompts for teachers to support student reasoning with multiple representations. For example, each lesson provides teachers with scripted, open-ended questions for guiding student understanding located within the "Preparation Notes" of the Teacher Guide. The materials also support student vocabulary building by having students write about the vocabulary words at the end of each topic. For example, the Student Companion's "Topic Review" section has a place for students to expand on challenging vocabulary words by writing the word, the definition, informal explanation/characteristics, an example, and a nonexample. The materials provide scripted teacher supports explaining and discussing vocabulary.

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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.

Partially Meets 2/4

The materials provide opportunities to discuss mathematical ideas to develop and strengthen content knowledge and skills, but they do not include guidance for the teacher in structuring and facilitating discussions. The materials intentionally provide opportunities for students to engage in mathematical discussions in a variety of group settings, including with peers (in lesson parts); with the teacher (prompted by the teacher before, during, and after instruction with guided questioning); and outside of the classroom (found in many of the "Topic Enrichment Projects"). The materials include opportunities for discussion throughout the lessons, beginning in prerequisite and launch activities, in the middle in lesson parts on student companion guides, and at the end in topic reviews to support concept and skill development. All lesson parts include prompts to discuss before, during, or after, and, in some cases, all three. The "Student Companion" guides used by students as they work through lessons often instruct students to discuss a problem with a partner and give prompts or details on what should be discussed and sometimes how. The materials lack guidance for teachers on structuring discussions.

Evidence includes but is not limited to:

The materials intentionally provide opportunities for students to engage in mathematical discussions in a variety of group settings, including with peers in lesson parts. For example, in Lesson 3-2, the materials instruct the teacher to use the activity from the "Launch" to discuss the various ways you can use a function. It also prompts them to discuss with peers in lesson parts. For example, in Lesson 10-3, after students have chosen a graph with slope triangles that

represents a given equation, they are instructed to use mathematical language when discussing their choice with a partner and describing the parts of the graph. They can discuss outside of the classroom, as found in many of the Topic Enrichment Projects. At the end of the project, students evaluate their work based on the project checklist and review it with a friend or family member. The materials use “Prerequisite Assessments” at the start of the unit to determine how to use student groups and differentiation with each student. Small group instruction is recommended for struggling students during “Prerequisites Lessons” and “Intervention Lessons.” The “Program Overview Guide” recommends the use of small-group interactions and peer questioning with whole class, heterogeneous groups, or pairs while students engage in real-life projects. Additionally, it recommends completing the “Make Connections” at the end of each lesson as a “Think-Pair-Share” exercise or in a small group.

The materials include opportunities for discussion throughout the lessons to support concept and skill development. For example, at the beginning of each lesson, students participate in thematically-focused prerequisite lessons. Some prerequisite lessons allow students opportunities to discuss current mathematical concepts. In the middle of the lessons, the Student Companion guides often provide prompts for students to discuss their problem-solving processes and solutions with classmates. “Topic Reviews” finish each topic and provide students opportunities to discuss what they have learned from that topic.

The materials intentionally support discussion throughout all phases of content and skill development. For example, throughout the lesson cycle, there are numerous opportunities for the students to engage in discussion. Each lesson is structured with a “Focus Question,” Launch, “Key Concept,” 2–3 Parts, and a “Close and Check,” which includes “Do you know HOW?” and “Do you UNDERSTAND?” portions. At the beginning of each lesson, the lesson poses the Focus Question, and throughout the Launch, Key Concepts, and all Parts, notes in the Teacher Guide include questions and conversation starters for before, during, and after the phase of the lesson. During the Close and Check, students review and discuss the Focus Question before the students work with a partner or group to address the Close and Check questions. The Close and Check questions are generally argumentative discussions, for example, Lesson 4-1 Do You UNDERSTAND? includes one question on writing with students describing the strategy used, and another on Error Analysis, requiring a student to correct the mistakes someone has made and explain the mistakes for clarity.

While the materials provide “Teacher Guides” for each lesson with a variety of open-ended questions for discussions, the materials lack guidance for teachers on structuring discussions. The materials lack guidance on how to structure discussion, and while the materials provide discussion prompts, they do not provide the methodology of carrying out the prompts or responses for the class as a whole. The materials do provide structure for specified designations in the ELPS groups. For example, in Lesson 5-6, the ELPS instructions are broken out between beginning, intermediate, advanced, and advanced high groups. The materials give each group instructions on how and what they will communicate with peers, such as a pair from the advanced group pairs with another group from the advanced or advanced high group and

explains how to solve a problem. The guidance for the teacher notes, “Encourage them to reference and point to the watering can visual to assist in their explanation as well as guide their audience through the process of choosing the correct answer. Ask them to be prepared to answer questions from their audience about their solution.”

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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 justify mathematical ideas using multiple representations and precise mathematical language. The materials provide opportunities for students to use various mathematical representations, such as symbols, verbal descriptions, and graphs, to justify their mathematical thinking. The materials include several instances where students can justify their answers in a variety of ways, based on their preference. Additionally, the materials provide prompts for teachers to guide students into building on their understanding by questioning the student's original responses or differences in mathematical justifications between classmates. The materials provide opportunities for students to justify mathematical ideas using whole group and small group discussions. Materials guide teachers in supporting students in these discussions in the form of scripted questions with possible answers, as well as background information. Students can also justify mathematical ideas using "Enrichment Projects" and presentations of their ideas.

Evidence includes but is not limited to:

The materials provide tasks for students to justify mathematical ideas and present those arguments to the class. For example, each lesson includes "Do you know HOW?" and "Do you UNDERSTAND?" sections at the lesson conclusion, which include opportunities for students to construct their arguments and mathematical ideas. Lesson 11-3 includes an Error Analysis question with a given situation and solution, and the student needs to identify and explain the mistake made. The "Teacher Guide" recommends completing this section as a partner or small group activity, so the students communicate verbally as well.

The materials provide students with opportunities to justify their mathematical statements using various representations such as verbal descriptions, symbolic forms, models, and graphs. For example, Part 3 of Lesson 3-3 provides a table to students with a shark's length in 5-year increments. It asks students to find the rate of change and predict the length of a shark at 25 years old and at 40 years old. Students can justify their answer using a variety of methods, for instance, extending the table using the same rate, developing an equation where values can be substituted, or creating a graph to represent the data. For example, the "Student Companion" presents opportunities to verbally share mathematical ideas with classmates in addition to walking classmates through written justifications. In Lesson 10-3, after students have chosen a graph with slope triangles that represents a given equation, the lesson instructs them to use mathematical language when discussing their choice with a partner and describing the parts of the graph.

The materials provide routine prompts throughout lesson parts to guide students in constructing their arguments and self-analyzing their approaches so they can compare to alternate approaches taken by classmates. For example, the materials list discussion questions that have multiple responses and include sample answers as well. To build on current knowledge and understandings during a task, the materials give teachers follow-up inquiries regarding alternate methods. In Lesson 1-4, the teacher asks students how to write a number in a different form and follows the student's answer with, "Can you think of more than one way?" For example, several teacher guides across the topics suggest the use of a "Think-Write" organizer. In Lesson 7-2, the Teacher Guide suggests the use of a Think-Write organizer for struggling students to support the development of their logical reasoning abilities. Students use the organizer to show connections between their "observations about a diagram and the conclusion they deduce from those facts."

Additionally, the materials also provide routines within the lesson structure in the teacher's guiding questions to facilitate discussions within the class. For example, the Teacher Guide for each lesson provides an "Essential Question Connection" section that gives teachers background knowledge of the content connections, as well as discussion questions to deepen student understanding of the content. The questions provided when making connections between real-world use of scientific notation include "Should you try to express a very small irrational number in scientific notation? Why?" and "What are some real-life scenarios, seen in this lesson, in which scientific notation is used to represent large numbers?"

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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.

Partially Meets 1/2

The materials include developmentally-appropriate diagnostic tools (e.g., formative and summative progress monitoring) and guidance for teachers and students to monitor progress; however, they do not include formal methods and guidance for students to track their own progress and growth, nor is it documented that all content and process skills are measured. Students receive formal and informal assessments throughout the lessons and topics and can showcase their understanding in a variety of ways, particularly in the "Enrichment Projects." The materials include formal assessments, such as "Prerequisite Assessments," topic and unit tests, and informal assessments such as "Got It?," "Do You Know HOW?", and "Do You UNDERSTAND?" problems and developmentally-appropriate diagnostic tools. The tools are designed to allow students to demonstrate understanding in a variety of settings, including whole group, small group, and peer-to-peer, and in a variety of ways, including through discussions, pencil and paper, and computer-based and performance-based questions. The materials support the administration of each diagnostic tool, providing recommendations for administration. The materials do not, however, include formal methods and guidance for all students to track their own progress and growth. The diagnostic tools are designed to measure all content and process skills as outlined in the grade-level TEKS; however, individual assessment items do not have the associated standard attached to them to determine if, indeed, all standards are assessed.

Evidence includes but is not limited to:

The materials include formal and informal developmentally-appropriate diagnostic tools. Each unit includes a Prerequisite Assessment designed to assign students to leveled learning groups. The end of each topic has a test designed as a summative tool, assessing mastery toward the related lessons within the topic. Additionally, the materials include informal assessments, such as Got It? problems throughout each lesson. For example, Lesson 2-3 asks, “The line shown has an undefined slope. Use the points shown to explain why.” Do You Know HOW? problems at the end of each lesson check for procedural fluency, for example, in Lesson 3-3, “Do the ordered pairs in Exercise 1 represent a function?” Do You UNDERSTAND? problems at the end of each lesson check for conceptual understanding, for example, in Lesson 5-2, **“**Your friend decides that the 2 cylinders [a picture is shown] have the same surface area. Do you agree? Explain.” The “Pull It All Together Tasks” are performance tasks at the end of each topic, in which all concepts from the topic culminate into a multi-step problem-solving activity. The materials include a category of materials labeled “Progress Monitoring,” with three subcategories—“Diagnostic Assessments,” “Unit Assessments,” and Prerequisites Assessments. Diagnostic Assessments contain a beginning-of-the-year assessment that can be administered digitally with mostly open-ended questions that address skills from prior grade levels. Unit Assessments contain a summative assessment for the end of the unit (six total), a Mid-Year Test, and an End of Year Test. Each unit of instruction has a unit Prerequisite Assessment, designed to assess student readiness for new content. Teachers can administer these in both digital and print formats. The materials include “Close and Check” questions for each individual lesson as an informal formative assessment at the close of the lesson to determine if the students understand the day’s concepts and can answer the daily “Focus Question.”

The “Program Overview Guide” guides teachers through the structure of the materials, including information on how to use the various diagnostic tools and formative assessments. For example, the Overview Guide explains that the unit prerequisite diagnostic assigns students to a learner level based on their results (threshold of above 70% versus below 70%), but the teacher can change the threshold or move an individual student to a different learner level assignment. The Prerequisite gives the teacher easy-to-find links, enabling them to assign the diagnostic to a class, group, or student; add the diagnostic to a “playlist”; as well as edit the prerequisite by removing questions. The teacher also has a link to the remediation lessons that result from the diagnostic. The materials include recommendations for teachers to use with struggling or advanced students during formative assessments, which incorporate suggested tools or extensions. For example, in the Got It? section of Part 1 of Lesson 10-3, the teacher guide states that the teacher should encourage students to sketch the image on a coordinate grid to see the effects of the dilation they are performing. Additionally, in this section, the materials provide clarification on the error students made if they chose a particular answer. The materials provide similar tips and recommendations to teachers across all lesson parts, including those that act as formative assessments. The materials provide pacing guides for the lessons and administration of diagnostic tools. For example, the Unit A Teacher Guide lists a

pacing of 11 days for the entire unit. Teachers should administer the prerequisites assessment on day 1 and the unit summative on day 11.

While the materials provide a few recommendations for teachers to have English learners self-check their progress, mainly for the acquisition of language versus attainment of mathematics proficiency, the materials do not include formal methods and guidance for all students to track their own progress and growth. The materials provide students with solutions to the problems within the lesson, as well as immediate feedback, through the "MathXL for School" online grading system, on their assessments, such as the prerequisite test, unit test, and topic tests. However, this is the extent of feedback that students receive and the materials lack focus on progress reflection and growth tracking.

The diagnostic tools are designed to measure all content and process skills as outlined in the grade-level TEKS as presented in the Program Overview Guide; however, individual assessment items do not have the associated standard attached to them to determine if, indeed, all standards are assessed. The tools have a cluster of student expectations attached, indicating which standards are assessed within the entire assessment. For example, Topic 13 Test covers standards 8.12A, 8.12B, 8.12C, 8.12D, 8.12E, and 8.12F—this information is found in the "Resource" tab by clicking the graph icon. The diagnostic tools, including the Beginning of Year, Mid-Year, and End of Year tests, Unit Tests, and Prerequisite Assessments, have all been aligned to measure the content standards of the eighth-grade math TEKS. However, the test information or answer keys do not cite process standards. The lessons throughout the materials include formative assessments with the Close and Check phase, which includes both content and process skills as outlined in the eighth-grade TEKS. The Homework and Practice cite content standards. For example, Lesson 2-3 cites the process standard 8.1G and the content standards 8.2D and 8.4C in the Close and Check. The Homework cites 8.4B only, which is not inclusive of all the content standards taught through the lesson, and none of the process standards are cited.

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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.

Partially Meets 1/2

The materials include recommendations for responding to student needs within mathematics, based on data from one of the assessments. The materials provide guidance for teachers to support their understanding of the results of diagnostics tools by Class Results, by Assignment and Class Mastery, and by Standard. Teachers can also click on a data point to view assessment questions that contributed to the score, student responses, and each question's assignment. The materials provide a variety of suggestions and activities for teachers to use to address the results of student assessments, such as intervention lessons, enrichment activities, and lesson check activities (which are part of the intervention activities). The "Program Overview Guide" does mention that the material is for teachers and administrators. The materials do not explicitly state elsewhere that there is guidance information for administrators; however, administrators can view data results in the "Data" tab. The data can be viewed by class and students, but no evidence was found that data is collected by the school. Administrators can then use the same guidance and support available for teachers to design instruction and respond to data.

Evidence includes but is not limited to:

The materials include guidance for scaffolding instruction based on a student's needs as demonstrated on the "Prerequisite Skills Assessments" and offer suggestions to provide scaffolds for the content, process, or product of the content and skills addressed within the unit. For example, at the beginning of Unit C, the Prerequisite Assessment addresses the skills necessary for understanding the five topics within the unit: Using the Pythagorean Theorem, Surface Area and Volume, Linear Equations, Reasoning in Geometry, and Simultaneous Linear Equations. If the test shows deficits in any of the skills, the teacher assigns students the appropriate study plans, which could include Volume of Prisms, Classifying Triangles, Comparing and Ordering Integers, Principles of Solving Equations, Dividing Integers, Nets and Surface Area, and many others. Depending on the data, the start of each of the five topics would include either an "Enrichment Project," for those who have mastered the prerequisites, or a small group Prerequisites Lesson.

The materials provide embedded scaffolds in the homework and prerequisite activity, based on the Prerequisite Assessment results in the Unit. Additionally, based on the learner group, teachers can use the scaffolds in the teacher guides that address struggling, on-level, and advanced learners. For example, the "Prerequisite Activity" for Topic 11 has two separate scaffolded activity sheets for students, a Team K Activity for the on-level group and a Team G Activity for the advanced group. Team G essentially has the same parameters but receives less guidance. In addition to this, some students complete remediation lessons rather than completing the activity if they struggled with the Prerequisite Assessment. For example, Part 3 of Lesson 2-5 provides solution notes, but the material also extends recommendations for struggling and advanced learners. The material instructs the teacher to relate the word *intercept* with *intersect* for struggling learners, while advanced learners go a step further and write an equation for the situation.

Score data covers test scores, including detailed standard, question, student, and performance analyses. For example, the Data tab of the "Digital Learning Platform" has an option to view class results by assignment or by standard. When reviewing the scores of an assignment, Data displays and color codes the average scores on a completed test (blue = 80%–100%, yellow = 60%–79%, red = 0%–59%). From this view, teachers can click on a bar or point of the graph to see how well individual students scored and their individual responses. Materials provide teachers support for planning instruction and differentiation based on data gathered from the Prerequisite Skills Assessments. For example, each unit begins with the Prerequisite Assessment, which screens every student for an understanding of the unit's prerequisite concepts. The data of the Prerequisites Assessment develops personalized study plans for each student specific to their deficient skills. Additionally, each topic within a lesson includes Prerequisite Lessons, and the results of the Prerequisite Assessment help determine which students could benefit from the small group instruction it utilizes.

The materials provide a variety of suggestions for teachers to use based on the results of assessments. For example, individualized study plans are prepared for students based on their prerequisite tests; however, teachers can adjust individualized plans or groupings based on their discretion. The variety of suggestions include differentiated homework, differentiated groupings for the Prerequisite Activity, and specific modifications in the lesson instructions for struggling and advanced learners. Also, differentiated suggestions for ELPS levels beginning, intermediate, advanced, and advanced high are provided for lesson parts, which can be translated to varying levels within the classroom for non-EL populations. The ELPS guidance gives specific activity instructions tailored to the leveled learning groups. The materials provide teachers with support for differentiating instruction based on diagnostic tools data. For example, when learning about finding unknown leg lengths in triangles, the "Teacher Guide" instructs teachers to use pictorial models to describe the vocabulary word *diagonal* for struggling students and to challenge advanced students to find as many triples as they can in a given timeframe.

The "Acknowledgements and Copyright" section of the material notes that material is for teachers and administrators: "This work is...provided solely for the use of teachers and administrators in teaching courses and assessing student learning in their classes and schools." The materials do not explicitly state elsewhere that there is guidance information for administrators; however, administrators can view data results in the data tab. The data can be viewed by class and students, but no evidence was found that data is collected by the school. Administrators can then use the same guidance and support available for teachers to design instruction and respond to data.

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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 reviewed include frequent, integrated formative assessment opportunities. The materials provide routine and systematic progress monitoring through the topic, unit, and prerequisite assessments. Additionally, each lesson has routine "Got It?" tasks that act as formative assessments. The materials accurately measure and track student progress in each lesson through the "Close and Check" section and through algorithmic tasks and methods such as reasoning questions and error analysis. The materials also accurately measure student understanding at a Topic and Unit level through assessments and track their progress through the year on a TEKS standard basis, where students' mastery status on a standard is updated as new tests are submitted.

Evidence includes but is not limited to:

The materials include suggested pacing and routines for checking the progress of students. For example, the "Progress Monitoring" portion of the program includes a "Diagnostic Assessment," which teachers deliver at the beginning of the year, a "Mid-Year Test" given after the delivery of the first three Units, and an "End of Year Test" given after the delivery of the last three Units. Additionally, teachers deliver a "Unit Assessment" at the conclusion of each unit, as well as a "Topic Test" delivered after each topic. The progress monitoring opportunities accurately measure and track student progress. For example, the beginning, middle, and end of the year tests are spaced out throughout the year and assess the same standards, so that the classroom teacher can make an accurate comparison of a student's growth throughout the year. Additionally, teachers can also compare the Unit Assessments delivered throughout the year to the "Beginning of the Year Test" to see how students have grown immediately following content instruction. Teachers formally and informally administer diagnostic, formative, and summative assessments at regular intervals throughout the curriculum. "Math XL" grades the diagnostic and summative assessments, providing progress monitoring data for each student.

The materials provide routine and systematic progress monitoring opportunities that allow teachers to gather information regarding student understanding throughout a Lesson, Topic, or Unit. For example, each Lesson has Got It? sections embedded in lesson parts that act as checks for understanding. More systematically, materials provide an assessment at the end of each topic, as well as an assessment at the end of an entire unit. Both assessments provide real-time results for teachers with direct feedback on which standards students need additional practice. The materials accurately measure and track student progress in each lesson through the Close and Check section. For example, in each lesson's Close and Check, a student receives a variety of assessment types. These assessments typically begin with an open-ended question relating to the lesson, followed by two to three "Do You Know How?" questions that assess the student's ability to perform mathematical functions, and end with two "Do You Know Why?" questions that assess a student's conceptual understanding through a variety of ways such as reasoning questions and error analysis. Additionally, the materials contain a "Data" tool that allows teachers to see what standards students have mastered on assessments. As noted in the materials, "The scores show the results from assessments taken so far this school year, so a student's mastery status on a standard may change as new tests are submitted."

The materials include an appropriate frequency of assessment that reflects the variable rate of student learning at this age. For example, there are three cumulative tests throughout the year, assessing the bulk of the grade-level content. Additionally, the materials deliver Unit Assessments throughout the year after each unit. These assessments focus solely on the content just taught. The materials provide options for progress monitoring as appropriate for the age and content skill. The types of questions utilized throughout the materials are aligned to the grade-level content, as written in the TEKS. Additionally, the question format aligns with the multiple-choice format of STAAR. Additional formatted questions are appropriate for the grade level and content. For example, the Unit E Test has some open-ended questions and uses situations to address the unit's content, referencing walking a dog to earn money and the cost of a specific stock over time.

The materials guide teachers in administering progress monitoring assessments at an appropriate frequency for students at this grade-level. For example, each topic ends with a formal topic assessment, and each unit ends with a formal unit assessment. The materials organize the results of these assessments so that teachers can view mastery by standard and question, as well as view results by the student or the class as a whole. The materials provide options for progress monitoring through various views in the Data function of the digital materials. For example, the materials update the standards students have mastered during the school year as they take assessments. There are options to sort the report by student mastery of that standard, as well as providing a description and link to learning resources for a standard when the teacher clicks on a particular standard code. Additionally, the teacher can see progress after a student has taken a prerequisite assessment to view recurring gaps.

The materials instruct teachers to provide regular formal and informal assessments of specific age-appropriate content as outlined by the TEKS. For example, teachers administer formal prerequisite assessments before each of the seven Units, and the materials suggest intervention lessons for each student based on the results of these assessments. Teachers administer formal summative assessments at the end of each Topic and Unit. For example, the end of each lesson provides informal assessments with the use of the formative Do You KNOW? and Do you UNDERSTAND? questions. The materials provide age-appropriate progress monitoring through formal assessments administered three times a year. For example, the curriculum includes Beginning of Year, Middle of Year, and End of Year assessments to help monitor students' progress through content development.

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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.

Partially Meets 1/2

The materials provide the recommended targeted instruction and activities for students who struggle to master content, as well as those who have mastered the content. Lesson pre-assessments provide guidance for teachers, indicating students' learner levels by letter—G for advanced learners and K for struggling learners. Lesson prerequisite activities include different activities for both learner groups G and K. Materials provide struggling students with intervention and remediation lessons. The "Teacher Guides" include readily-accessible differentiated suggestions and supplemental supports to the teacher, which include differentiated instruction sections that provide suggestions for struggling students and for advanced students. However, the resource material does not offer additional activities beyond the targeted instructional suggestions for students who have mastered the content. The material includes enrichment activities; however, the activities are not differentiated for learners at all levels. Advanced students are provided enrichment activities, more thorough tasks, and leveled homework and activities—with the ability to skip the remediation activities if successful on the prerequisite. The teacher has the autonomy to reassign students as they see appropriate.

Evidence includes but is not limited to:

Throughout the materials, each topic includes a prerequisite skills lesson. Each topic throughout the materials includes a "Prerequisite Lesson" to engage the students in prior skills and move forward with new information. The materials present these lessons as three separate examples for working through either in whole group or collaborative groups. The materials provide differentiated instruction for both struggling and advanced students, each with one to two

suggested adjustments to the activity or questions. For example, for Lesson 1-5, the resource suggests that teachers help struggling learners by using an alternative instructional method. Teacher lesson guides include teaching tips for key concepts, for example, in Lesson 9-1: "Emphasize the use of prime notation to understand which vertex in the figure corresponds to a vertex in the image." For example, Lesson 2-1 provides the following suggestion for struggling students: "Make sure students understand that each point on the graph is described by an ordered pair, where the first number represents the games purchased and the second number represents the total points earned. Draw lines from each axis to the coordinate using different colors to show visually how each coordinate relates to the scale on its axis." Moreover, for advanced students, it suggests "Have students try to discern a pattern from the graph. Ask them to describe the pattern in words and share with a partner." The materials provide an embedded scaffold, using the prerequisite assessment at the start of each unit, and group students into leveled learning groups based on areas of need or readiness for extensions. Leveled homework and practice problems are assigned based on prerequisite results and are intended to close gaps recognized from the prerequisite assessment. For example, in Lesson i22-4, students review how to graph rational numbers on a number line. Within the remediation module, students use an online manipulative to place dots on a number line representing the given rational number examples.

Teacher lesson guides include differentiated instruction sections that provide suggestions for advanced students. For example, Lesson 4-1 suggests that teachers encourage advanced learners to use their understanding to name other Pythagorean triples, then use a calculator to identify more. However, the materials fail to provide activities for students who have mastered the content. There is no evidence supporting guidance for targeted instruction. Each lesson does have two versions of the homework, one "at grade level" and one at a more simple level, both of which state "This item counts toward mastery of the standards."

Materials provide lesson plans for teacher use, which contains Teacher Guide links. The teacher guides give instructions for both struggling and advanced learners. In Lesson r13, one activity separates teamwork into Team K, for struggling learners, and Team G, for advanced learners. Advanced learners are given similar instructions and data to struggling learners; however, advanced students must look up additional information, are given more complex calculations, and are required to combine steps to increase the level of difficulty.

The resource provides enrichment activities that it refers to as "Enrichment Projects." For all 14 on-grade level topics, the resource provides one enrichment project. The projects, however, do not indicate differentiated activities for learners at varying levels. For example, Topic 12 includes an enrichment project entitled *Smart Shopping* that requires students to conduct research and use the knowledge obtained to market products of the best deals to classmates. Enrichment activities are not differentiated for learners on different levels. Materials provide enrichment projects for students who have mastered the content in the prerequisite assessment. Some topics provide differentiation suggestions for struggling learners. The enrichment projects provide teacher notes on how to differentiate for struggling versus

advanced students. For example, the Topic 6 enrichment activity asks students to research mass transit systems, write equations to model the travel/real-world situation, solve the equations, and create a poster. This activity ends with the student evaluating their own work using a provided checklist.

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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.

Partially Meets 1/2

The materials provide a variety of instructional methods that appeal to a variety of learning interests and needs; however, they only provide some guidance to support the teacher in selecting instructional methods and strategies and facilitating the grouping of students. The lessons provide a variety of instructional approaches for different learning interests and needs, which entails technology, graphic organizers, engaging videos, and diverse cultural representation. Program material includes lessons that incorporate a variety of different instructional approaches, including whole group, independent practice, guided instruction, and group collaboration. The material does not, however, guide teachers in selecting appropriate teaching strategies to meet the needs of individual students or assist teachers in understanding how and when to use developmentally-appropriate strategies. The program markets a flexible design that encourages teachers to adapt the material to their unique teaching styles. The program material provides activities and routines for whole and small group instruction, and some suggested activities for one-on-one interventions. Program materials provide students an opportunity to practice with the teacher and peers but do not support the teacher in facilitating the flexible grouping arrangements. The materials provide opportunities for differentiation and support, as well as exploratory learning; however, they provide little guidance for the teacher regarding when and how to adjust the student grouping.

Evidence includes but is not limited to:

The materials use multiple teaching strategies and teaching methods to meet students' different learning needs. Each topic offers several lessons, and the lessons contain a "Launch" or introduction and "Parts" representing teaching and practice where these various teaching methods can be found. Each lesson details techniques, strategies, questions, models/manipulatives, or implementation; suggests ELPS to incorporate throughout the lesson; details math background, including content from prior exposure and the alignment with current content; and features a differentiated instruction note throughout each part of the lesson that details what to look for with struggling students and the enrichment activities that advanced students can complete. For example, in the eighth-grade materials, Lesson 10-1 incorporates drawing on coordinate planes; however, there are no ELPS listed, but it does include connection to prior lessons for congruence and similar figures. The materials include videos, hands-on, concrete practice with manipulatives or online embedded activities, solve and check problems with solutions, suggested group work for collaboration, as well as enrichment activities geared toward engaging students with real-world applications. Each of the enrichment activities includes a variety of instructional approaches as well. For example, Lesson 11-2 begins the launch with students dragging dots based on the hands-on data they collected. The module provides a graph manipulative to assist in constructing the scatterplot. Later in the lesson, the module provides a video to show how to construct a scatterplot, followed by a practice problem with different data.

The presentation format for each lesson throughout the materials is identical, but the activities within the lessons support the use of a variety of instructional strategies to support delivery. Developmentally-appropriate instructional strategies include exploration with digital manipulatives, teacher modeling with the Launch and three examples of a new concept, "Close and Check" questions at the end of every lesson for opportunities to problem solve with teacher support, and supporting language with details for which ELPS to utilize throughout each phase of the lesson. The "Teacher Guides" provide details for each lesson. All guides contain support, suggested questions, note-taking strategies, and techniques for modeling. The elements include TEKS and ELPS, "Focus Questions," and "Math Background," which links current content to previously taught skills and content. The "Student Companion" extends the Close and Check with extra practice or extension. The materials include instructional routines designed to support students in engaging with the content and skills present in a lesson. For example, the on-level lesson has three parts. The digital platform for the teacher's instruction displays the three parts, and the Student Companion provides students an area for note-taking corresponding with the instruction. The Launch provides the engagement piece with math content with real-world connections to build on prior knowledge and establish new knowledge. The activities bundled within the lesson provide direct and explicit instruction of content. They incorporate animations to pull attention to important details. Finally, the Close and Check ties all components together and summarizes the lesson. The practice continues through the "Do You Know HOW?" section and extension of knowledge through the "Do You Understand?" section.

The material provides multiple opportunities for students to engage digitally, including leveled practice activities; digital manipulatives such as number lines, fraction models, area models, and more; paper-based lesson companions; English to Spanish translation; audio read alouds; and digital glossary. The materials also include an "Enrichment Activity" for each lesson that contains various opportunities for students to engage with the content, such as collaborations and real-world problems in various Project-Based-Learning activities. The lessons are structured with a digital engagement activity, teacher-led lesson, and digital lesson practice with language and audio supports, as well as digital manipulatives, digital leveled practice, and a check for understanding.

The program material includes prerequisite lessons with accompanying teacher guides, but they do not guide teachers in selecting appropriate strategies based on students' performance. Topic and lesson guides support teachers with "Math Background" sections that provide information on prerequisite skills that students should have attained to support success in the current topic or lesson objectives. The "Program Overview Guide" includes a flexible implementation plan but only for technology integration. The program does have differentiated homework activities and suggests that teachers adjust instruction based on student performance, but does not provide guidance on adjusting instruction. No evidence has been found that demonstrates how the material supports teachers in understanding how and when to use strategies. The program states that it was intentionally designed for flexible teaching based on teachers' own personal style and best practices.

The materials support the use of a variety of instructional strategies to support delivery. Developmentally appropriate instructional strategies include exploration with concrete, hands-on materials; Math Background sections, so the teacher knows skills taught in prior grades; teacher prompts and "think-alouds" before the activity, during the activity, and after the activity; opportunities to problem solve with online, teacher, or group support; and supporting language with pictorial support, videos, multilingual glossaries, and sound play buttons. Prerequisite lessons are designed to separate students into learning groups applicable to the corresponding unit of study. Intervention lessons are designed for whole or small group. Program material also includes interactive activities designed for individual exploration, for example, Lesson 10-3, Part 1. While the program does include intervention lessons, they are clusters of lessons designed to build foundational skills and not to support students who need one-on-one attention for a particular skill or concept.

The materials provide some guidance to teachers on when to use a specific grouping structure based on the needs of students. For example, materials note that teachers should group students for small group instruction during the prerequisite lessons for those students who demonstrate weaknesses. The teacher guides for each unit, topic, and prerequisite do not show evidence or guidance on which students should receive what type of grouping structure. Additionally, there is no evidence suggesting what specific weakness is identified. The Program Overview Guide states that after administering the "Prerequisite Assessment" at the start of a unit, teachers "establish student's learner level" and "Scores are used to automatically assign

individualized study plans for each student to intervene in areas of weakness." However, guidance for specific grouping structure is not evident regarding the new/grade-level content. The materials provide some learning experiences that could be incorporated for individual exploration. For example, each topic within the materials contains a "Topic Project" for students not needing remediation through prerequisite lessons. Topic 1 requires students to research and reference skyscrapers, design, architectural drawings, and identify the use of rational and irrational numbers in real-world situations. The students also incorporate the writing in math, creating their own skyscraper diagram and scale drawings, which encourages the use of communication skills. While the materials consistently provide grouping between struggling learners and advanced learners via differentiated homework and differentiation of the activities' tasks, they do not provide a significant amount of guidance for small group instruction, and teacher guides are generally geared toward large group instruction. Note that the program overview does state that the teacher would use prerequisite assessment results to group students between groups K for struggling learners and G for advanced learners for a prerequisite lesson. The materials do provide learning experiences that teachers can adapt to different structures of grouping; however, they do not give explicit instructions on how to implement these experiences within different structures. For example, some activities, such as Lesson 1-6, Part 2 "Solution Notes," provide a "Need-Know-How" organizer to assist students in getting started on a multi-step problem. The materials provide activities for students who need more one-on-one support, as suggestions throughout the curriculum provide additional practice, alternate explanations with the use of manipulatives, and clarification on common errors made. For example, in Lesson 14-4, Part 1, the guidance provided for struggling learners recommends having students create a table to analyze their work better and follow with a "Think-Write" organizer to arrange thoughts and determine a solution.

The materials do provide activities for large group and small group instruction. The materials provide guidance to help teachers understand how and when to use strategies to support all learners. Students can attain individual exploration through the "Enrichment Project" for each Topic. Each project presents students with a real-world problem in which they must organize, plan, research, write, and present findings related to the content of the Topic. According to the materials, students can complete projects individually, in small groups, or in whole group. These projects align with the prerequisite lessons and can be used for students who do not need review in that content. This recommendation is included in the program guide but not specifically referenced within each activity's teacher guide. The materials include diagnostic checks that automatically create an individual study plan for each student. The teacher can modify these plans, and the materials suggest that teachers discuss study plans with students before each Unit. The materials suggest that on-level students with occasional weaknesses work independently through the intervention lessons. It also suggests that students with large gaps use a small group setting such as intervention pull-out or Title 1 class.

Prerequisite results for each topic assist in choosing the appropriately leveled materials for student groups. The teacher guides provide sample answers and teaching tips to help clarify areas of misconception/confusion. English Learner scaffolding tips are provided, and

suggestions for ELPS are broken out between beginning, intermediate, advanced, and advanced high. “Differentiated Instruction” sections break out guidance for struggling students and advanced students. “Teacher Guides” include scripted support for each stage of the lesson, including “Before the Lesson,” “During the Lesson,” and “After the Lesson” discussion questions, as well as lesson objectives, author’s intent, and common errors. Leveled homework activities are available, as well as instructions on helping struggling and advanced students. The support materials also include “Lesson Hosts,” who are, by design, young people with whom students can connect to explain the content in a developmentally appropriate language.

The material also provides students an opportunity to practice with the support of the teacher, such as in teacher-guided instruction as outlined in Teacher Guides with guiding questions and problems to solve; independently as provided with Homework exercises and student companion; or with other peers, as seen in “Think-Pair-Share” activities and team exercises in the prerequisite lesson. However, the material does not provide teachers with support in facilitating guided, collaborative, and independent practice. The lessons provide opportunities to practice independently, with peers, or as a class. While the majority of the guidance is geared to class or individual activities, such as class discussions or student companion documents to work through topics, there are suggested team breakouts within the teacher guidance for each topics’ Prerequisite lesson. For example, the Prerequisite lesson for Topic 3 breaks teams out between Team K and Team G. Within other pieces of the lesson, the teacher guides students through class discussions, and students have companion sheets for individual work or assessments. Sample answers, common errors, and suggestions to guide students to the correct answer are provided in detail for all activities.

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Savvas Digits Grade 8

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).

Meets 2/2

The materials include various linguistic accommodations aligned with the English Language Proficiency Standards (ELPS) for students who are learning English, particularly regarding their level of English language proficiency. The lesson guides provide explicit instructional suggestions for English Learners (ELs) at different proficiency levels. The instructional strategies are sequenced in a way that supports students at varying levels and allows for repetition that is playful and interactive. The materials provide research-based scaffolds to support ELs. The design of the material, with embedded videos, illustrations, and demonstrations, acting as supports that make scaffolding intentional and natural in the lessons. Additional supports include a comprehensive bilingual glossary in English and Spanish and downloadable PDFs that contain word lists and glossaries in Cambodian, Cantonese, Haitian-Creole, Korean, Vietnamese, Hmong, Filipino (Tagalog), Mandarin, and Spanish. The "Program Overview Guide" has instructional strategies provided for every principle of the Building ELL Lessons Framework. The materials encourage the strategic use of students' first language if their first language is Spanish; however, the materials do not provide the same explicit support for students whose first language is any language other than Spanish.

Evidence includes but is not limited to:

The materials include various linguistic accommodations aligned with the ELPS for students who are learning English, particularly regarding their level of English language proficiency. Each teachers' lesson guide includes a section highlighting which of the ELPS are explicitly addressed during the lesson. For example, Lesson 2-1 informs teachers that the lesson aligns with the

cross-curricular and learning strategies standards: “The ELL uses language learning strategies to develop an awareness of his or her own learning processes in all content areas. The student is expected to: (D) speak using learning strategies such as requesting assistance, employing non-verbal cues, and using synonyms and circumlocution (conveying ideas by defining or describing when exact English words are not known). (3) The ELL speaks in a variety of modes for a variety of purposes with an awareness of different language registers (formal/informal) using vocabulary with increasing fluency and accuracy in language arts and all content areas...The student is expected to: (D) speak using grade-level content area vocabulary in context to internalize new English words and build academic language proficiency.” The materials provide a variety of effective strategies for teachers to support students at different English language proficiency levels. The lesson guides provide explicit instructional suggestions for ELs at the different proficiency levels. For example, in the same lesson on Representing Proportional Relationships, the teacher guide suggests that teachers work with Beginning level students “to understand, define, and correctly use terms from the Key Concept…and help students create flashcards which provide an example of each term, a synonym or shortened definition. For Intermediate level students, have students complete the activity for Beginning learners, but have pairs create flashcards to develop the best descriptions, synonyms, and visual models for each word. Give students time to practice the new words, using their flashcards as a tool. For Advanced level students, have students work in a group to describe a math term from the Key Concept while peers try to guess which one it is. Have each student verbally share one term and a piece of information he or she learned about this term. [Sample: may start at (0,0) on the coordinate plane, increases by the same amount for each unit, looks like a line; proportional relationship]. Finally, for Advanced High level students, have students complete the activity for Advanced learners. After students in the group guess the term being described, they should follow-up with an additional descriptor or synonym. Allow each student to verbally share one term and a piece of information he or she learned about this term.” The instructional strategies, as described above, are sequenced in a way that supports students at varying levels and allows for repetition that is playful and interactive. For example, Part 1 of Lesson 10-2 asks students to describe a series of rigid motions and dilations for a specific example. ELPS instructions/suggestions are provided for the following groups: beginning, intermediate, advanced, and advanced high. The instructions for the beginning level consist of guiding questions for specific types of transformations that may have taken place, and the intermediate extends on these questions by following with a partner discussion with additional guiding questions. The directions for the advanced group advise the teacher to partner students and have them work together to experiment with the online “Building Figures” tool, and the advanced high group builds on this activity by then following with forming a conjecture to answer “Does the order of the transformations matter?” This type of specific guidance, broken out by EL levels, is consistent across the material. In another example, when learning about shape similarity, teachers are encouraged to use simple language that can be answered with yes or no answers when asking students questions about the transformation of the model. In the same lesson, Advanced High learners are asked to make a conjecture regarding the order of the transformation to further their understanding of the concept.

The materials provide research-based scaffolds to support ELs. Some of the research is based on the work of one of its authors, Dr. Jim Cummins, who is the Professor and Canada Research Chair in the Centre for Educational Research on Language and Literacies at the Ontario Institute. Dr. Cummins' research that has helped shape the pedagogy provided in the materials focuses on literacy development in multilingual school contexts. As a result of this and other research on developing academic language, the materials have a defined ELL Curriculum Framework outlined and described in the Program Overview Guide. The design of the material, with embedded videos, illustrations, and demonstrations, provides supports that make scaffolding intentional and natural in the lessons. For example, the topic openers introduce academic vocabulary with a visual representation and auditory explanation of how they will be addressed in the lesson. Additional supports include a comprehensive bilingual glossary in English and Spanish and downloadable PDFs that contain word lists and glossaries in Cambodian, Cantonese, Haitian-Creole, Korean, Vietnamese, Hmong, Filipino (Tagalog), Mandarin, and Spanish. While there are tips and suggestions to help students' development of academic language and instructional strategies provided for each of the principles of the framework, the materials do not include suggestions for small-group instruction that focus primarily on language development. The materials give extensive guidance on modifying the presentation of mathematical content for EL students in order for them to gain meaning from the lesson. For example, in the Program Overview, the following are only a portion of suggestions made to guide teachers in appropriate scaffolding for EL students: "Use Demonstration—providing clear and explicit step-by-step procedures when approaching word problems; Use Manipulative (and Tools and Technology)—an emphasis is made that teachers encourage the use of these tools 'within the context of a project that students are intrinsically motivated to initiate and complete;' Small-Group Interactions and Peer Questioning—the materials are laden with suggestions for small group and peer discussion within ELL leveled groups; Use Pictures, Real Objects, and Graphic Organizers—this includes pictures, graphic organizers, real objects, etc." For example, in many lessons, the use of pictorial models introduces the concept.

The Program Overview Guide provides instructional strategies for every principle of the Building ELL Lessons Framework. These strategies are user-friendly, specific, and include an additional section that relates to an application specifically in the material. For example, Principle 3 is "Provide Comprehensible Input." The guide suggests that teachers "use teaching techniques that involve the other senses. For example, when teaching about ratios, have students taste saltwater mixtures with varying ratios of salt to water and when teaching perimeter, have students trace the outlines of the objects being measured." Then the guide goes further by stating that, to apply this principle while teaching, teachers should emphasize the lessons' engaging animation, audio, numerous images, charts, and tables that will help ELs acquire knowledge and skills. The materials encourage the strategic use of students' first language if their first language is Spanish; however, the materials do not follow the same explicit support for students whose first language may be any language other than Spanish. For example, students can find vocabulary words pertinent to each lesson by clicking on an icon in the digital material; students will find a written definition, audio presentation, and Spanish version of the

term provided. The materials include specific guidance within each lesson that addresses the ELPS but also gives an extensive toolbox to the teacher in the Program Overview. For example, ELPS guidance and suggestions are broken out by language acquisition levels within the lesson teacher guides. Additionally, the program overview provides a substantial amount of suggestions for teaching strategies that align with the five principles of teaching ELs. The materials provide some guidance to teachers on how to use students' first language to access current vocabulary. For example, in a section titled “Clarify Language,” the materials elaborate on how to use the first language to acquire new vocabulary. The overview explains that because much of the English technical mathematical language has roots in Latin and Greek, the vocabulary has cognates in “Romance languages such as Spanish (e.g., addition—adición).” Per the overview, speakers of these languages should be encouraged to use cross-linguistic linkages. The materials also suggest the use of bilingual dictionaries, as the Spanish-English dictionary is embedded in the content already and readily accessible in the toolbar. The use of students’ first language is encouraged in the ELPS section of the Program Guide as an accommodation for formal and informal assessments. For example, possible assessment accommodations include bilingual dictionaries, dual-language assessments, and the use of native language in written responses. The materials also provide students with native language, on-demand support with the use of online “Multilingual Glossaries,” as well as online Spanish translations for tasks in the lessons.

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Savvas Digits Grade 8

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

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

Meets 2/2

The materials include year-long plans with practice and review opportunities that support instruction. The materials contain a plan for year-long instruction of the grade-level content and processing TEKS. The program overview supplies teachers with a year-long outline of the material by unit, topic, and lesson. The curriculum is cohesively designed to build upon students' knowledge and skills across grade-levels and within the grade level itself. The "Math Background" provided in the Unit, Topic, and Lesson teacher guides give extensive guidance to the teachers on the review and progression of concepts between grade levels and lessons in the current grade level. Topics provide ample reviews, and each unit also contains a review that covers all unit topics. Additionally, the materials contain "Mixed Reviews" with spiraled practice of various concepts covered within the grade level. The materials provide practice opportunities that build in complexity through the Lesson as well as across the Topic.

Evidence includes but is not limited to:

The materials include a plan for instruction that spans the year, as well as vertical alignment showing how concepts and skills align in other grade levels. For example, the materials outline the overarching concepts, how they are linked to the Texas Curriculum Focal Points, and in what sequence they should be taught. Each topic notes the TEKS, so the teacher can verify that all the standards are appropriately addressed. The "Scope and Sequence" of the "Intervention Lessons" connect prior skills to current content and align with the needs of sixth, seventh, and eighth grade. For example, the Topic "Teacher Guide" details what TEKS are taught during the current set of lessons, what TEKS from prior grade levels align, and what TEKS these new skills will align to in the future. The materials include guidance that supports the teacher in understanding the vertical alignment for all focal areas in Math Texas Essential Knowledge and

Skills in preceding and subsequent grades. For example, the “Math Background” included in the Topic and Lesson teacher guides support the teacher’s understanding of current skills, what skills they have learned in the past, and how they are interconnected.

The materials contain an outline of the instruction covered for the year, including details of vertical alignment within the teacher guides. The outline also includes an explicit mention of Focal Points, TEKS, and ELPS covered in each unit. The materials are designed to build on students' previous knowledge and skills and sufficiently provide the teacher with vertical alignment details for all focal areas in Math Texas Essential Knowledge and Skills in previous and upcoming grades, as well as within the grade-level itself. For example, the Topic 7 teacher guide begins with a table containing two columns, Looking Back and Looking Ahead, which contain the specific TEKS related to the topic covered in previous grades and TEKS that will be covered in upper grades (high school), as well as the current grade-level TEKs. Following this, it includes detailed paragraphs describing the progression of skills from previously learned concepts to how the current grade-level topics will be built on in high school. For example, in the Lesson 2-2 Teacher Guide, the Math Background section begins by stating that students learned about proportional relationships in grade 7. It follows by stating that this concept was reviewed in the previous lesson (within that topic). The guide provides clarity on how the lessons build to introduce direct variation, and the math background concludes with what these concepts will build to in future lessons, such as relating slope to unit rate and realizing a graph with a proportional relationship will have a y-intercept of zero.

The materials contain a plan for year-long instruction of the grade-level content and processing TEKS. For example, the “Program Overview Guide” contains three alignment documents. The first contains an outline of the Units and Topics, and it highlights which Topic covers each of the Texas Focal Points, usually in a range of 3–8 Topics. The second is a more in-depth document that details which topics cover which lessons, as well as the specific content and processing TEKS covered in that topic. The third document in the Program Overview Guide defines each of the TEKS and includes all of the specific lessons in which it appears. Cohesive instruction in the lessons allows students and teachers to make content connections between lessons and previous grade levels. For example, the Teacher Guides contain a section titled Math Background that details the instructional purpose of the current unit, topic, or lesson and also gives insight into the methods used to introduce the aligned TEKS in previous grade levels. This section also includes details of how the current instruction will build to later courses. The materials give information in each Topic regarding the vertical alignment of the curriculum. For example, the Teacher Guide for the Topics includes the definition of the TEKS covered in the lesson, as well as a “Looking Back” section that defines the alignment of the TEKS from seventh (and in some cases sixth grade) as well as a “Looking Ahead” section that defines the alignment of the TEKS for high school courses such as Algebra I and Geometry.

The materials provide reviews and practice throughout the curriculum and build upon previously taught content throughout each lesson. For example, each lesson throughout the book provides opportunities to practice the content with a variety of application processes. In

addition to the differentiated homework included with each lesson, there is also a Mixed Review. Lesson 2-4 practices the content of the unit throughout the lesson and within the homework. It includes an additional five questions reinforcing the skills of determining unit rates and ratios, graphing ratios, and solving word problems involving ratios.

The materials provide reviews on a topic level but also include cumulative reviews that cover an entire unit. Additionally, the materials also include Mixed Reviews in each lesson that cover major areas that span across the various concepts in grade 8. These reviews are consistent across all units and topics. For example, each Topic review contains a vocabulary review task, a "Pull It All Together" activity, a "Topic Close" activity, and a "Topic Review" homework assignment. For example, the 10-1 Mixed Review contains questions covering distance on the coordinate plane, transformations, ratio table, and proportional relationships. The practice materials build upon content from previous grades and within the previous lessons from the current grade level. For example, Lesson 10-2 introduces similarity after having covered the effects of various transformations in previous topics, followed by dilations in Lesson 10-1 right before exploring similarity attributes. The lesson helps students strengthen their ability to describe transformations, leading them to explore "the properties of similar triangles and slope in subsequent lessons."

The materials provide regular and consistent review practices throughout the entire curriculum. For example, at the end of each of the fifteen topics, the materials provide a review that opens with a "Topic Vocabulary Review Game" to be played in either whole group or small group according to the Teacher Guide and a Pull it All Together task that includes a multi-step problem that utilizes multiple tasks from the topic and includes a holistic scoring rubrics for teachers to assess student understanding of the content. The review continues with a wrap-up video that compiles content from the lesson with a real-world situation, then presents students with content practice as a review homework assignment.

The materials provide practice opportunities that build in complexity through the lesson as well as across the topic. For example, when learning about Equations, the topic begins with Solving Two-Step Equations, then progresses through Writing and Solving Equations with Variables on both sides, and continues on to Writing and Solving Inequalities with Variables on both sides. The Solving Two-Step Equations lesson initially presents students with solving two-step equations in the form of y=mx+b; then, the lesson increases in rigor to end with solving equations by combining like terms and finding errors in previously solved equations.

November 2020

Savvas Digits Grade 8

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.

Partially Meets 1/2

The materials include some implementation support for teachers and administrators. The materials support teachers in understanding how to use the materials as intended by including a "Program Overview Guide," "Topic Teacher Guides," and "Lesson Teacher Guides." Additional supports for teachers include the virtual manipulatives in the digital program and the grids and organizers. Teachers can use these tools to model skills and concepts for students. The materials are organized in a way that makes sense for ease of implementation and accessibility. The Program Overview provides the "Scope and Sequence," along with detailed guidance on the structure and purpose of the lesson parts. The Scope and Sequence documents do not specifically address how the TEKS build and connect across grade levels. The materials guide teachers on routines within lessons, thereby facilitating easier implementation. The materials provide an adequate amount of lessons across all topics, with reasonable and appropriate pacing suggestions provided in the Unit teacher guides. There is a lack of guidance specifically aimed at administration in regards to supporting teachers and using tools to recognize best instructional practices and arrangements in a middle school classroom. While it is inferred that the material is accessible to administrators with the same support provided for teachers, there is no specific information separate for administrators to support teachers in implementation.

Evidence includes but is not limited to:

The materials include a Scope and Sequence aligned to the TEKS, outlining which essential knowledge and skills are reviewed, taught, and covered in future grades. The Scope and

Sequence provides an order for skills presentation; however, it provides no implications on revisiting skills. For example, the Program Overview provides an outline that gives a brief overview of the Unit and Topic outlay within the materials. A more detailed Scope and Sequence follows the brief overview and adds details on specific lessons and projects contained in each topic, as well as the Texas Focal Points, TEKS, and ELPS addressed. For example, the Program Overview Guide contains three Scope and Sequence documents. The first contains an outline of the Units and Topics, and it highlights which topic covers each of the Texas Focal Points. A range of 3–8 Topics covers each of the Texas Focal Points. The second includes a more in-depth document that details the Scope and Sequence of which topics cover which lessons, as well as the specific content and processing TEKS covered in that topic. The third document in the Program Overview Guide defines each of the TEKS and includes all of the specific lessons in which it introduces the TEKS, as well as when lessons revisit it. The Scope and Sequence documents do not specifically address how the TEKS build and connect across grade levels.

The materials support teachers in understanding how to use the materials as intended by including a Program Overview Guide, Topic Teacher Guides, and Lesson Teacher Guides. The Program Overview Guide outlines the program, then briefly discusses each component of the program, including core lessons, intervention lessons, and assessments. The Program Overview Guide also provides a rationale for the components of the individual lessons such as the "Prerequisite," "Launch," and "Close and Check" activities. This information supports teachers in understanding why the components exist and work together as a whole. The Topic Teacher Guides support teachers by providing vertically aligned standards (on grade level, looking back, and looking ahead), a "Math Background" section narrating skills and concepts students should pull from their background knowledge to apply to the current content, "Essential and Focus Questions" to frame the topic, and a "Topic Planning Guide" that provides the suggested pacing of lessons within the topic. The Lesson Teacher Guides then provide more specificity for each lesson, supporting the teacher in understanding key concepts of the lesson and how to launch the lesson, guiding questions to help students progress toward proficiency, guidance for English Learners, suggestions for fostering student engagement and differentiating instruction, and understanding author's intent—all critical attributes of the lesson. Lesson 9-2 provides an example of the author's intent when it states: "So far students have been given the graph of a figure and its image. Now, they graph the figure and its image, given the coordinates of the original figure and the reflection rule in arrow notation. All reflections are across an axis to simplify the rules students need to use."

Additional support for teachers that are also beneficial for students during practice,\ include the virtual manipulatives contained in the digital program and the grids and organizers. Teachers can use these tools to model skills and concepts for students. The materials are organized in a way that makes sense for ease of implementation and accessibility. Each topic and lesson has the guides in a side panel, and a stationary tab at the top of the page has the tools readily accessible. For example, the Program Overview provides a "Flexible Implementation Plan," with details on how to implement the materials in a low-technology, medium-technology, and high-technology setting. The flexible implementation plan provides

suggestions on how to assign assessments, homework, and interventions under various scenarios and suggests specific hardware to use in class and at home if possible. For instance, in low-tech environments, it suggests small group pullouts and pencil and paper. For example, teacher implementation videos and resources are provided on the publisher's website with access available from the curriculum. Also, the content is easily navigable, with the starting page broken out by grade-level, followed by the unit outlay. Once a unit is chosen, it presents topics within the unit, and users can choose topics to view sequenced lessons. It also provides On-Demand training videos. Videos include a "Getting Started" section, which includes a Program Overview; "Teaching an On-Level Lesson"; and "Unit Structure" overview. Also included are videos for progress monitoring, teacher and student support, MathXL, and platform training.

The materials do not provide guidance directed at administrators related to supporting teachers in the implementation of materials or any support specifically intended for administrators. That being said, it is reasonable to assume that the administrators can use the program overview with an administrator's lens to support teachers.

The materials include lessons and activities for a full year of instruction in a classroom, provided that the school year is equivalent to the traditional 180 days of instruction. The Unit and topic Teacher Guides have realistic pacing guides.

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Savvas Digits Grade 8

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.

Partially Meets 1/2

The materials provide some implementation guidance to meet variability in programmatic design and scheduling considerations. Teachers have the autonomy to rearrange concepts as they see fit. The materials are designed to allow easy implementation into a variety of school designs. The materials provide suggested pacing of topics and units based on traditional schedules with 45–50-minute classes or block schedules with 90–120-minute classes. The materials include strategic guidance in how to implement the curriculum to incorporate the developmental progression that naturally occurs in mathematics; however, the materials lack guidance in regards to the possibilities of rearranging the placement of units and instead depend on teachers to adhere to the scope and sequence to receive the most benefit. The materials are designed for flexibility of implementation, dependent on a school's design concerning technological accessibility and daily schedule structure. They include options for EL small group interventions that can be translated into a full classroom approach. The materials do not address additional structures such as online-only classrooms or multi-grade classrooms.

Evidence includes but is not limited to:

The materials include strategic guidance in how to implement the curriculum to incorporate the developmental progression that naturally occurs in mathematics; however, the materials lack guidance in regards to flexibility of rearranging the placement of units and instead depend on

teachers to adhere to the scope and sequence to receive the most benefit. For example, the "Math Background" section passages provided in the unit, topic, and lesson "Teacher Guides" detail the developmental progression of mathematical concepts between topics and lessons, with direct navigation on how current and upcoming lessons build on previous lessons.

The materials are structured in an order that identifies the developmental progression of the content and skills. It is clear to the user that the content should be taught in a specific order. For example, units are laid out in alphabetical order, and topics are introduced in numerical order, with lessons also listed in numerical order as a subset of each topic. There is no guidance on how to rearrange the order of units within the curriculum. For example, the Teacher Guide for each unit identifies the prerequisite TEKS included within the prerequisite assessment for each unit. All TEKS included as prerequisites are from previous grade levels. This sequence indicates that units (except for Unit A) could be taught in a different order without disrupting the content of other units. However, there is no guidance for the reorder of units within the materials.

The materials are designed to allow easy implementation into a variety of school designs. The materials provide suggested pacing of topics and units based on traditional schedules with 45–50-minute classes or block schedules with 90–120-minute classes.

The materials provide support for LEAs to consider how to incorporate the materials into a variety of school designs. For example, the materials provide a detailed "Flexible Implementation Plan," with recommendations based on the school's technology capabilities. Suggestions for lesson presentation, assessment, homework, intervention, and planning are based on three categories, Low Tech, Mid Tech, and High Tech. Low tech includes online presentations, paper-based assessments and homework, teacher-selected interventions completed whole group or Title 1 pull-out, and printed TE. Mid tech includes online presentations, online prerequisite assessments, paper-based unit assessments, online homework, printed homework helpers as a backup, teacher-selected interventions completed whole group or Title 1 pull-out, and online teacher guides, with printed program overview. High tech includes all assessments and homework completed online, teacher-selected interventions online with individualized study plans, and teachers use the dash and the digits mobile app. For example, the materials provide a detailed implementation plan regarding pacing dependent upon the structure of the school day. The unit Teacher Guides pace out each topic based on a traditional schedule versus a block schedule.

The materials are designed for flexibility of implementation, dependent on a school's design with respect to technological accessibility and daily schedule structure, and include options for EL small group interventions that can be translated into a full classroom approach. The materials do not address multi-grade classroom implementation or co-teaching. For example, the "Program Overview" provides guidance based on low, medium, and high technology capabilities with specific suggestions on how to approach various parts of a lesson. The unit overviews provide pacing suggestions for both singular period and block schedules. For

example, the lesson teacher guides provide guidance on implementing small group structures for specific lesson parts, organized by EL beginning, intermediate, advanced, and advanced high groupings. The suggested small group interventions can flexibly be translated to general learning needs within the classroom.

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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.

Partially Meets 1/2

The materials provide some guidance on fostering connections between home and school. Other than the inclusion of an informational letter to parents and suggestions in "Enrichment Activities" for students to present to families, the materials lack resources to encourage the development of strong relationships between teachers and families. The parent letter, supplied in both English and Spanish, provides a general overview of the program. The letter gives parents details and assistance accessing the online materials, as well as explaining that homework, lessons, and progress monitoring can be done online. Given that the program is primarily digital with supporting print material, there is an abundance of online access to resources for parents to work with their children on specific skills. Additionally, the materials provide a multilingual glossary that provides terms with visual and verbal examples in 11 different languages. However, the material as a whole is not available in any language other than English. The materials do not provide guidance that outlines any activities specifically designed for use at home to create a school/home relationship.

Evidence includes but is not limited to:

The materials lack information and resources to encourage the development of strong relationships between teachers and families. Teachers can send a parent letter describing the program, how students will interact with the program, and how teachers will monitor students' progress. The parent letters are available in English and Spanish to help ensure parent understanding of accessing the program from home. The letters provided give an overview of getting started with the ACTIVe-book, which allows students to interact with the curriculum, as well as a letter explaining how to get started with the digital program, which contains all the course content. Because this curriculum is available in a fully digital format, students can access the content at school with teachers and at home with parents. They can access homework assignments completed at home through this digital curriculum. The materials do not provide any guidance that outlines any activities specifically designed for use at home to create a school/home relationship. The materials also include Enrichment Activities that often suggest

students present results to their families, such as in the Enrichment Activity for 4 in which students design eye-catching new billboards to sell televisions, then present the billboard and a project checklist to a friend or family member. Activities such as this one encourage a school-family connection but do not necessarily aid in the development of a strong teacher-family relationship. The Enrichment Activity continues on to direct the student to review their completed project with a family member or friend with specific guiding questions to ask, such as, “Do your billboard designs meet the requirements?” After the student revises the project based on feedback, the materials direct them to evaluate their project based on the project checklist with a friend or family member.

While there is guidance to support English Learners, guided by the English Language Proficiency Standards (ELPS) and a “Multilingual Handbook,” the material as a whole is not available in any language other than English. The materials provide appropriate suggestions or resources for home activities that support the curriculum and that families can easily use through its Enrichment Activities. The materials include online access to the resources for parents to work with their children on specific skills. The materials contain parent letters with instructions on accessing resources, along with a troubleshooting checklist and a link for technical support. The online materials, which are accessible to parents and students from home, provide quick access in the toolbar to vocabulary within that lesson in both English and Spanish, along with examples in both languages for the vocabulary terms. Additionally, the materials include a multilingual glossary that provides terms with visual and verbal examples in 11 different languages. Outside of the student task of reviewing work with family on Enrichment Activities, there are no suggested home activities provided to parents regarding skill acquisition.

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

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

Meets 2/2

The visual design of student and teacher materials (whether in print or digital) is neither distracting nor chaotic. The materials include appropriate use of white space and design that supports and does not distract from student learning in both the digital platform and printable student companion sheets. The materials support student learning by providing graphics that are large and clear with sufficient white space, making it less distracting. Students can minimize graphics and text on the digital platform, giving them more room to work out problems. The teacher's guides are designed with clear, designated places for important information such as aligned TEKS and pacing structures and include instructional support information that is clearly stated and easily identified on the pages, and aids in planning and implementing lessons. The teacher guides are easily navigable, and important information is easy to find, particularly due to the consistency of "Lesson Teacher Guides," "Topic Teacher Guides," and "Unit Teacher Guides." The "Program Overview Guide" thoroughly assists teachers in getting started with using the materials and understanding the purpose of each lesson piece. Moreover, the Teacher Guides are consistent and use the same format across the curriculum. Additionally, the materials include readable, relevant, and recognizable pictures, videos, and graphics that support student learning.

Evidence includes but is not limited to:

The materials include appropriate use of white space and design that supports and does not distract from student learning in both the digital platform and printable student companion sheets. The teacher's guides are designed with clear, designated places for important information such as aligned TEKS, pacing structures, essential questions, guided support for English Learners, and more. The teacher's guides also include instructional support information

that is clearly stated and easily identified on the pages, and aids in planning and implementing lessons. For example, the Teacher's Guides include sections such as "Author Intent," "Fostering Student Engagement," and "Close and Check" to clarify and ensure the demonstration of key concept understandings. The Program Overview thoroughly assists teachers in getting started with using the materials and understanding the purpose of each lesson piece. Moreover, the Teacher Guides are consistent and use the same format across the curriculum. For example, the Unit Teacher Guides provide topic outlines and pacing details for each topic, as well as essential questions; vocabulary; and background information regarding previous, current, and future learning encompassed in the unit. For example, individual Lesson Teacher Guides open with the "In-Class Notes," which include guiding questions for each section of the lesson. This section is followed by the "Preparation Notes" that include relevant lesson information listed under bolded headings such as Texas Essential Knowledge and Skills and English Language Proficiency Standards.

The materials include readable, relevant, and recognizable pictures, videos, and graphics that support student learning. For example, the topic openers and launches include clear animations and videos, and each lesson piece has large, clear text and graphics, including the "Student Companions" that have easily identifiable pictures and graphics in some questions. For example, the digital math tools contain a simple graphic along with the text to help students identify the appropriate tool to use. The publisher uses clear, easy to read fonts. Pictures in the lesson and on assignments do not distract from the text on the page or interfere with learning, as there is no clutter and all associated pictures are clearly associated with their lesson part or practice problem. The tables and charts are also clear and easy to read.

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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 entire program is digitally based. All student and teacher activities are designed to be delivered in a technology platform, yet users can print them if needed. With technology integration, data and reports are easily accessed, and assignments are quickly assigned to students.

Evidence includes but is not limited to:

The materials reviewed are technologically based, with supplemental print material. Therefore, technology is not only present but is the foundation of the program. Thus, it aligns with the curriculum's scope and approach to mathematics skill progression. The components include:

- Unit, topic, and lesson guides for teachers
- All assessments, both formative and summative, for students (prerequisite, unit, topic, etc.)
- Homework assignments
- Guided practice lessons
- Enrichment activities
- Tools (such as virtual manipulatives, graphic organizers, and a glossary) for instructional support
- Editable lesson plans for teachers

All of these components (and others not mentioned) support the materials' progression of math content and skills introduction and practice.

The materials are designed for access on a digital platform, and therefore, the entire curriculum and all activities are accessible through technology with the option of transitioning to paper-based if needed. The materials provide personalized digital lessons for students based on learning level and give feedback on progress while offering students the ability to complete school work from home if they have a computer/device with Internet access. The technological components of the materials align with the scope and sequence since the entire curriculum is designed to be accessed on a digital platform. Each lesson has specific guidance on how to utilize each digital piece of the lessons. Considering the materials are designed to be fully accessed digitally, the technological components support the materials' progression of math content and skills introduction and practice through daily interactive lessons. For example, each lesson includes a "Launch" video and then two to four practice activities for completion as individuals or as a whole group. Students can digitally complete each lesson practice, homework, review work, and test/quiz.

The materials contain digital features to enhance classroom learning without replacing or detracting from it. The digital Student Edition of the math book is age-appropriate for sixth- to eighth-grade students. Students' individual homepages have navigation buttons for digital copies of the student text, tutorial videos, and online skills practice. For example, the student edition contains a skills practice page where students may go to practice and receive feedback on converting between fractions, decimals, and percentages. The technology promotes and enhances student participation in materials through the use of engaging videos and activities. For example, each lesson contains videos and problem-solving tips by youthful individuals that are relatable to a diverse group of students. The technology of the lessons allows students to work through the entire lesson along with the teacher. Many lessons have drag and drop activities for students to help enhance student participation in the lesson.

The materials provide support for teachers to successfully integrate technology. The teacher guide has a sidebar within lessons that references available technologies to enhance the lesson. The materials contain a letter that supports families in working on the student edition outside of the classroom for extra support. Many of the topic introductions and practice problems have engaging videos and graphics to present scenarios. The program overview and teacher guides give teachers a thorough understanding of how to integrate the technological components in the lesson structure. For example, the program overview gives a high-level explanation of how to utilize teacher guides in the lessons and provides a table describing the various assessments and which assessments the online grading system can auto-grade. The teacher guides often direct teachers to utilize their whiteboard with the digital platform, along with how to incorporate student involvement in these activities. The materials include teacher training videos to assist teachers in understanding the technology of the curriculum, as well as information on how to contact Tech Support if an issue arises. For example, the training website features "On-Demand" training videos specific to the curriculum. Videos include training for the Program Overview, Unit Structure, and "Teaching an On-Level Lesson." There are also links to videos for connecting with the Teaching Support panel and Support for Students.