



**Bluebonnet
Learning**
K-5 Math
EDITION 1

ENGLISH

Grade K

Course Guide

TEACHER EDITION

Course Guide

K–5 Math Grade K

Acknowledgment

Thank you to all the Texas educators and stakeholders who supported the review process and provided feedback. These materials are the result of the work of numerous individuals, and we are deeply grateful for their contributions.

Notice

These learning resources have been built for Texas students, aligned to the Texas Essential Knowledge and Skills, and are made available pursuant to Chapter 31, Subchapter B-1 of the Texas Education Code.

If you have further product questions or to report an error, please email openeducationresources@tea.texas.gov.

Table of Contents

GRADE K COURSE GUIDE

Introduction..... 2

Profile of a Kindergarten Math Learner..... 2

Collaboratively Troubleshooting Student Misconceptions..... 3

Assessment Reflection Tool 5

Progression of Mathematical Concepts..... 13

Sequence of Kindergarten Modules Aligned with the TEKS 14

Kindergarten Year-at-a-Glance 16

Kindergarten Scope and Sequence..... 17

Kindergarten Standards by Lesson 23

Kindergarten Development of Fluency..... 26

Manipulatives and Supplies Lists..... 31

Tips for Families..... 35

Bibliography..... 79

Introduction

Welcome to the Grade K Course Guide. This guide is designed to give Kindergarten teachers specific knowledge about the structure of the instructional materials to help them effectively transition into the program. Included in this guide is information about standards, assessment tools, the focus of each module, and ways for families to support students at home. This guide also provides background on the developmental advances that affect how students learn in Kindergarten and practical strategies for troubleshooting misconceptions collaboratively with students.

Profile of a Kindergarten Math Learner

Kindergarten and Grade 1 cover an exciting period of child development. Students' individual math abilities are rapidly changing, growing, and connecting in ways that can have a powerful influence on their learning of mathematics. To be successful with the instructional materials, students' motor, reading, one-to-one correspondence, communication, self-regulation, and peer interaction skills need to be coordinated.

It is possible that students may misunderstand or solve problems incorrectly because one or more of the requisite skills are still developing. For example, students with developing motor skills may need support manipulating tiles during activities designed to teach counting. Their emerging reasoning and estimation skills can make it challenging for them to make bigger numbers from smaller numbers, and vice versa. Students in Kindergarten and Grade 1 are also developing their ability to read. This can sometimes make interacting with numbers in word problems or stories more challenging for students. Due to the developing skills needed for self-regulation, students at these grade levels may need support with solving multi-step problems or with taking turns when listening to and speaking with peers and teachers. Teachers help these students develop foundational skills, such as number sense, arithmetic, and problem-setting. These skills prepare students for more complex and representational math introduced later in the instructional materials. Thus, it is important for teachers to analyze students' problem-solving strategies to accurately gauge students' understanding and to use this information to tailor instruction appropriately.

The modules in the *Bluebonnet Learning K–5 Math* instructional materials are intentionally designed to effectively help teachers in Kindergarten and Grade 1 analyze students' thinking. The *Bluebonnet Learning K–5 Math* instructional materials activities support students' developmental needs by identifying potential student misconceptions and providing guidance to address these misconceptions. This ensures that students can move away from an algorithmic, rule-based version of math—which can often lead them astray as the concepts become more complex—toward a more holistic competence with mathematical reasoning.

For students to benefit from the *Bluebonnet Learning K–5 Math* approach, they need to be provided with opportunities to engage in productive struggle. This means that students boldly and confidently learn to confront mistakes, reframe them into learning opportunities, and then move forward, deepening their mathematical reasoning throughout the year. One of the best ways to encourage students to embrace productive struggle is to promote a classroom culture of learning. A culture of learning is one in which students embrace the process of productive struggle. It is also a culture free from the common idea that “fast at math = good at math.” By creating a culture of learning and encouraging students to view challenges as an expected and even desirable part of the learning process, teachers can help students avoid a fear of math that could undermine the mathematical future of many students. Instead, students can start enjoying and feeling confident in math even if their answers do not always come quickly.



Collaboratively Troubleshooting Student Misconceptions

It is common for students to make mistakes as they build their understanding of new or difficult concepts. From a student perspective, mistakes can logically occur whenever students try to apply previous learning to new problems that require a different approach. To help students correct their thinking and develop a better understanding, teachers can identify the knowledge that students are building on when they make a mistake.

The *Bluebonnet Learning K–5 Math* instructional materials list common student mistakes for each module. Teachers can use this information to troubleshoot mistakes collaboratively with students.

As noted in the Program and Implementation Guide, *collaborative troubleshooting* is a routine to help teachers address students' misconceptions. The three steps to collaborative troubleshooting are

- (1) surface student thinking;
- (2) validate what the student did right; and
- (3) bridge to a better understanding.

In Step 1, it's helpful to ask questions to better understand what the student was thinking when they made a decision. For example, the teacher can ask, "Can you tell me more about your thinking on this problem?" or "I noticed you wrote _____. What were some of your reasons for doing that?"

In Step 2, it's helpful to point out the parts of the problem that the student understood or did correctly. That way, the student maintains their successful thinking as they retry a problem. For example, teachers can say, "I noticed you did _____ and wrote _____, and that's great because that means you understood _____."

Last, in Step 3, the teacher can build on the student's assets and bridge to a better understanding. It can help to ask guided questions that invite the student to build a stronger understanding. For example, the teacher can ask the following questions:

- "If you keep _____ [correct thinking] and changed _____ [misconception] to _____ [alternative], then what do you think might happen?"
- "What would happen if you did _____ instead of _____?"
- "If _____ [correct thinking] is true, then how does that thinking affect _____ [misconception]?"

In practice, this routine may look and sound like the following teacher–student dialogue, which is based on a misconception for Grade K Module 1 Topic F that is listed in the Module Overview.

Note: Teachers can adapt this sample dialogue to other misconceptions listed in the Module Overview.



Scenario: A student repeats the count when asked “How many?”. When the configuration is changed, the student starts the count from 1 again when telling how many objects are shown. The teacher has a one-on-one discussion with the student.

Step 1: Surface student thinking.

T: Count out 5 beads and put them on the 5-group mat. Count out 5 more beads and put them on the mat. How many beads do you have?

S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. There are 10.

T: Now, let’s put the beads in a long row. How many now?

S: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10. There are still 10.

Step 2: Validate what the student did right.

T: We counted beads on a 5-group mat and then in a row. Did we count the same beads or different beads?

S: The same beads.

T: Did we get the same number of beads or a different number?

S: The same.

T: That’s right. Even though we moved the beads, we still have 10 beads.

Step 3: Bridge to a better understanding.

T: Now, make a circle with the beads.

S: (Put beads in a circle.)

T: We put beads in a row and then in a circle. Did we use the same number of beads in the circle or a different number?

S: The same.

T: Let’s whisper to count the beads. When you get to the last bead, shout the number.

S: 1 (whisper), 2 (whisper), 3 (whisper), ... , 10 (shout).

T: What do you notice?

S: There are 10 beads.

T: Now, move the beads back into the 5-group mat. How many?

S: 10.

T: We already know there are 10 beads. So, we do not have to count them when they are moved from the circle to the mat.

T: Put the beads back into a circle. How many? How do you know?

S: There are still 10. The number of beads did not change.

T: That’s right. We did not add more beads. We just moved the ones we already had. The number of beads stays the same.

Assessment Reflection Tool

An assessment reflection can be powerful in helping to surface student thinking and in helping students to monitor and track their own growth. It can also help students anticipate and process any thoughts they may have about completing an assessment.

The Assessment Reflection Tool can help teachers guide discussions both prior to and after an assessment. These discussions help the teacher promote a culture of productive struggle as students go into testing. These discussions also support students' needs after testing and give students the opportunity to reflect on their progress and learn from their mistakes after an assessment.

Grades K–1			
Teacher Says or Does		Students Say or Do	Teacher Says or Does
Pre-assessment	Opening Discussion	Discuss their choices with a partner or in their groups to help them be comfortable sharing out whole group.	Collect the Pre-assessment Reflection. Say, “I have heard a lot of your responses. I am excited to see everything you have learned and what we need to work on next. Remember, this assessment is just to see where you are, so that I can help you learn.”



Grades K–1			
Teacher Says or Does		Students Say or Do	Teacher Says or Does
Post-assessment Reflection	Upon completion of the assessment, complete the Post-assessment Reflection for each student. Fill in the “Student Step” column of the handout for each topic. (See the Post-assessment Reflection Example.) In this column, include the student’s Progression Toward Proficiency score for each topic on their assessment. Also include a checkmark if the student shows proficiency or a note if the student needs practice.	Circle the appropriate drawing to indicate their reflections on each of the topics.	Walk around and monitor student responses. Take the opportunity to have one-on-one conversations with any students who need support.
	Give each student their completed Post-assessment Reflection.		Say, “I can see you marked thumbs down for this topic. Why?”
	Display the Post-assessment Projection Example to help students identify areas in each topic where they need more support.		Listen to and acknowledge student responses.
	Consider displaying out the Pre-assessment Projection in case students forget what each topic was.		Say, “We are going to work together to help you understand where the mistakes came from. Mistakes are important because they help us grow.”
	Say, “Remember, your responses are just a tool that we can use to help you know where you are on your learning journey.”		

Grades K–1		
	Teacher Says or Does	Students Say or Do
Honoring Mistakes	Say, “I’d like to call out some good things I saw. I saw all the work and the thinking that you put into this assessment. Remember, it is also okay for you to be confused or unsure about some things on the assessment. We will work together to help you keep learning.” Ask, “What is something you did really well or that you’re really proud of on this assessment?” Use collaborative troubleshooting to help guide students through their assessments and clear up misconceptions.	

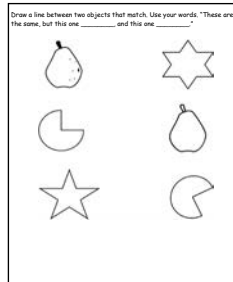
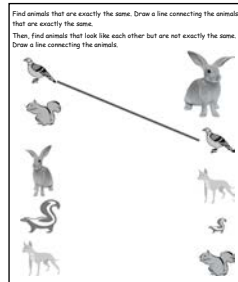
Pre-assessment Reflection Example (Kindergarten Module 1)

Skills	How do you feel about what you have learned about this topic?		
Find things that are <i>exactly the same</i> or <i>not exactly the same</i> .			
Make categories and count.			
Count to 5.			
Write numbers 1–5.			

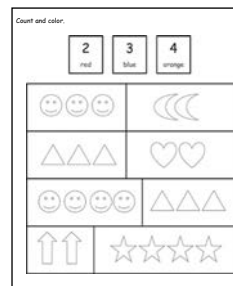
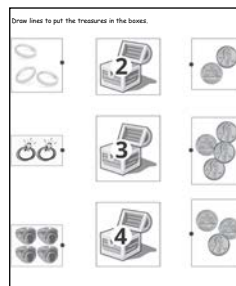


Pre-assessment Projection Example (Kindergarten Module 1)

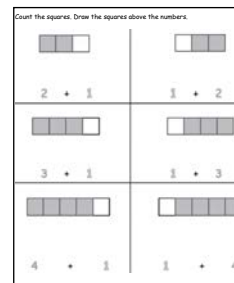
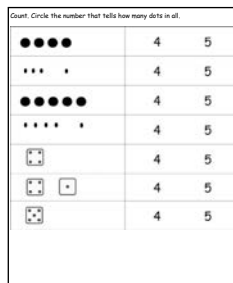
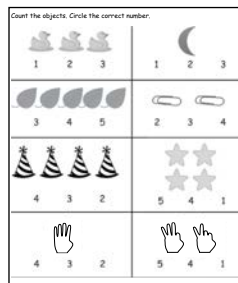
Find things that are *exactly the same* or *not exactly the same*.



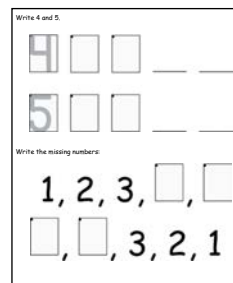
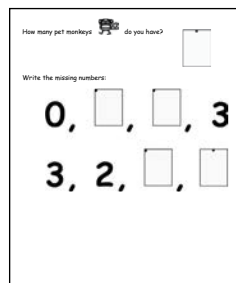
Make categories and count.



Count to 5.



Write numbers 1-5.

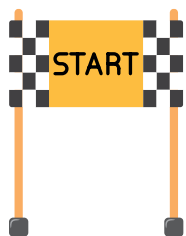


Post-assessment Reflection Example (Kindergarten Module 1)

Skills	Student Step (filled in by teacher)	Planning for the Future
Find things that are <i>exactly the same</i> or <i>not exactly the same</i> .		    
Make categories and count.		    
Count to 5.		    
Write numbers 1–5.		    



Post-Assessment Projection Example



I did not know where to start.



The pictures were confusing to me.



I did not understand the question.



I did not know certain words.



I understood all parts of this topic.

Pre-assessment and Post-assessment Reflection Tools

Pre-assessment Reflection	
Skills	How do you feel about what you have learned about this topic?
	  
	  
	  
	  

Post-assessment Reflection		
Skills	Student Step (filled in by teacher)	Planning for the Future
		    
		    
		    
		    



Progression of Mathematical Concepts

	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	1st QUARTER	2nd QUARTER	3rd QUARTER	4th QUARTER
	M1: Numbers to 10 (41 days)	M1: Sums and Differences to 10 (43 days)	M1: Sums and Differences to 100 (9 days) M2: Addition and Subtraction of Length Units (11 days)	M1: Properties of Multiplication and Division and Solving Problems with Units of 2–5 and 10 (22 days)	M1: Place Value, Rounding, and Algorithms for Addition and Subtraction (23 days)	M1: Place Value and Decimals (19 days)				
	M2: Two-Dimensional and Three-Dimensional Shapes (10 days)	M2: Introduction to Place Value Through Addition and Subtraction Within 20 (33 days)	M3: Place Value, Counting, and Comparison of Numbers to 1,200 (22 days)	M2: Place Value and Problem Solving with Units of Measure (31 days)	M2: Unit Conversions and Problem Solving with Metric Measurement (10 days)	M2: Multi-Digit Whole Number and Decimal Operations (37 days)				
	M3: Comparison of Length, Weight, Capacity, and Numbers to 10 (33 days)	M3: Ordering and Comparing Length Measurements as Numbers (13 days)	M4: Addition and Subtraction Within 200 with Word Problems to 100 (30 days)	M3: Multiplication and Division with Units of 0, 1, 6–9, and Multiples of 10 (26 days)	M3: Multi-Digit Multiplication and Division (38 days)	M3: Addition and Subtraction of Fractions (18 days)				
	M4: Number Pairs, Addition and Subtraction to 10 (44 days)	M4: Place Value, Comparison, Addition and Subtraction to 40 (23 days)	M5: Addition and Subtraction Within 1,000 with Word Problems Within 1,000 (23 days)	M4: Multiplication and Area (10 days)	M4: Angle Measure and Plane Figures (20 days)	M4: Multiplication and Division of Fractions (30 days)				
	M5: Numbers 10–20, Counting to 100, and Understanding Work (31 days)	M5: Identifying, Composing, and Partitioning Shapes (18 days)	M6: Foundations of Multiplication, Division, and Area (22 days)	M5: Fractions as Numbers on the Number Line (36 days)	M5: Fraction Equivalence, Ordering, and Operations (35 days)	M5: Addition and Multiplication with Volume and Area (23 days)				
	M6: Analyzing, Comparing, and Composing Shapes (6 days)	M6: Place Value, Comparison, Understanding Income with Addition and Subtraction to 100 (35 days)	M7: Problem Solving with Length, Money, and Data (29 days)	M6: Financial Literacy and Data (17 days)	M6: Introduction to Decimals and Financial Literacy (22 days)	M6: Problem Solving with the Coordinate Plane and Data (38 days)				
			M8: Time, Shapes, and Fractions as Equal Parts of Shapes (19 days)	M7: Geometry and Measurement Word Problems (23 days)	M7: Exploring Measurement with Multiplication and Data (17 days)					

Key:

Number

Geometry

Number and Geometry, Measurement

Fractions

Sequence of Kindergarten Modules Aligned with the TEKS

Module 1: Numbers to 10

Module 2: Two-Dimensional and Three-Dimensional Shapes

Module 3: Comparison of Length, Weight, Capacity, and Numbers to 10

Module 4: Number Pairs, Addition and Subtraction to 10

Module 5: Numbers 10–20, Counting to 100, and Understanding Work

Module 6: Analyzing, Comparing, and Composing Shapes

Summary of Year

Kindergarten mathematics is about (1) representing, relating, and operating on whole numbers, initially with sets of objects; and (2) describing shapes and space. In order to build a strong mathematical foundation for Kindergarten students, the instructional focus is on basic numbers and number sense.

Use of Problem Sets in Kindergarten

Providing opportunities for students to practice and show what they have learned through independent, in-class work is an integral part of these instructional materials. However, throughout the Kindergarten instructional materials, especially in the early modules, teachers may decide to extend the actions of the Concept Development as independent work rather than use the Problem Set.

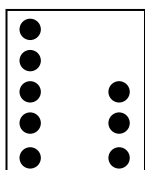
Teachers are encouraged to use understanding of their local context and student data when choosing to include or omit a Problem Set. If a Problem Set is omitted, be sure to give an alternate homework assignment in lieu of the written homework. Selective use of Problem Sets allows students to gradually move toward proficiently completing written work independently.

Rationale for Module Sequence in Kindergarten

At the start of Kindergarten, ladybugs, fingers, and plastic bears are used as manipulatives and counted, with work consistently moving from concrete to representational and abstract. By the end of Kindergarten, students' first steps into place value are evident when they make precise statements, such as "12 is the same as 10 ones and 2 ones!" This learning sets the foundation for place value understanding and for later work with decimal units. Students continue to make precise statements to demonstrate learning in Grade 1 (e.g., "12 is the same as 1 ten and 2 ones"), in Grade 2 (e.g., "12 tens is the same as 10 tens and 2 tens or 1 hundred 2 tens"), and in Grade 4 (e.g., "12 tenths is the same as 10 tenths and 2 tenths or 1 one and 2 tenths").

At the beginning of Module 1, Kindergarten students classify and categorize objects to make a group (e.g., "I made a group of 9 goldfish, and I can count them in a line, in rows, and in a circle"). Students learn the way each number from 0 to 10 relates to 5 by using fingers, cubes, drawings, 5-groups, and the Rekenrek (an abacus with a color change after the fifth bead). These materials help students see all numbers to ten in relationship to five. This relationship helps students see 6, 7, 8, 9, and 10 as 5 and some more. For example, students see that 3 and 5 make 8. This understanding sets the stage for the distributive property in Grade 3 (e.g., "8 fours = 5 fours + 3 fours, so $(5 \times 4) + (3 \times 4) = 20 + 12 = 32$ "). Module 1 ends with students investigating patterns of 1 more and 1 less (excluding the word *than*) by using models such as the number stairs (pictured on the next page) with a color change after the fifth cube.

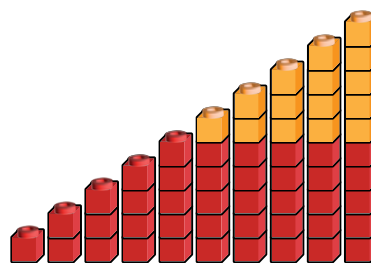




5-Group Card



Rekenrek



Number stairs

In Module 2, students take a break from numbers to analyze their environment and describe and identify squares, circles, triangles, rectangles, cubes, cones, cylinders, and spheres. During both Modules 2 and 3, students also practice fluency with counting and manipulating numbers to 10, giving them ample time to prepare for addition and subtraction introduced in Module 4.

Module 3 provides a solid foundation to future comparison work within the context of measurement. Students directly compare two quantities and learn to first identify the attribute being compared. The use of comparison words is carefully developed in the context of length (e.g., *taller than*, *shorter than*), then weight (*heavier than*, *lighter than*), and finally capacity. The terms *more than* and *less than* are used to compare capacities (e.g., “The bucket holds more than the cup”). This learning helps to transition students into comparing numbers (e.g., “9 chairs is more than 6 chairs”). This concrete foundation for comparison is essential to students’ entire K–12 mathematics experience.

In Module 4, an understanding of comparison supports learning in addition and subtraction, as it does in all the elementary grades (e.g., “7 is more than 3” leads to “ $7 = 3 + 4$,” and “ $3 + 4 = 7$ ”). Students represent *add to*, *separate*, and *join* stories with blocks, drawings, and equations. Toward the end of the module, students move from working within 5 to working within 10 (e.g., “How many more does 7 need to make 10?”). The final lessons of Module 4 set the stage for Module 5 where students recognize that 10 ones is the structure on which to build teen numbers. Students must know how to make a ten in order to use the *make ten* strategy in Grades 1 and 2. This strategy helps students build place value understanding as they develop proficiency with their sums and differences to 20 by the end of Grade 2.

In Module 5, after extended experience with adding and subtracting with totals up to 10, students progress to investigating numbers 10–20. For example, 13 beans are decomposed as 10 beans and 3 beans. Students record their decompositions of the teen numbers as equations, such as $13 = 10 + 3$, and start to think, “10. 3 more is 13.” At the beginning of Grade 1, students learn to think of the teen numbers as 10 ones and some ones. This learning sets the stage for expanded form in the upper grades (e.g., $36 = 30 + 6$, or $13.6 = 10 + 3 + 0.6$).

Module 6 rounds out the year with an exploration of shapes. Students build shapes from components, analyze and compare them, and discover that they can be composed of smaller shapes, just as larger numbers are composed of smaller numbers.



Kindergarten Year-at-a-Glance

Module 1	Module 2	Module 3	Module 4	Module 5	Module 6
Numbers to 10	Two-Dimensional and Three-Dimensional Shapes	Comparison of Length, Weight, Capacity, and Numbers to 10	Number Pairs, Addition and Subtraction to 10	Numbers 10–20, Counting to 100, and Understanding Work	Analyzing, Comparing, and Composing Shapes
41 days	10 days	33 days	44 days	31 days	6 days
K.2A	K.6A	K.2D	K.2I	K.2A	K.6A
K.2B	K.6B	K.2E	K.3A	K.2B	K.6B
K.2C	K.6C	K.2F	K.3B	K.2C	K.6C
K.2D	K.6D	K.2G	K.3C	K.2D	K.6D
K.2E	K.6E	K.2H	K.4A	K.2E	K.6E
K.2F	K.6F	K.2I		K.2F	K.6F
K.2I	K.8A	K.4A		K.2G	
K.3C	K.8B	K.7A		K.2H	
K.5A	K.8C	K.7B		K.4A	
K.8A		K.8A		K.5A	
		K.8B		K.9A	
		K.8C		K.9B	
				K.9C	
				K.9D	

Boldface = Focus Standard





Kindergarten Scope and Sequence

Bluebonnet Learning K–5 Math Instructional Materials: Kindergarten Scope and Sequence			
Module	Topics and Instructional Days	Knowledge and Skills	Standards (Bold = focus standard)
Module 1: Numbers to 10	A: Attributes of Two Related Objects B: Classify to Make Categories and Count C: Numbers to 5 in Different Configurations, Math Drawings, and Expressions D: The Concept of Zero and Working with Numbers 0–5 Mid-Module Assessment Task E: Working with Numbers 6–8 in Different Configurations F: Working with Numbers 9–10 in Different Configurations G: <i>One More</i> with Numbers 0–10 H: <i>One Less</i> with Numbers 0–10 End-of-Module Assessment Task Assessments: 2 Lesson days: 35 Assessment days: 6 Total instructional days: 41	Students observe their world and begin to compare and classify objects. They focus on ordering, counting, and writing numbers to represent up to 10 objects to answer <i>how many</i> questions. Students will: - Classify, count, and sort objects, match pairs of objects according to attribute (color, size, purpose, pattern, and position), and tell if pairs of objects are exactly the same or not exactly the same. - Group items into categories, count the items in each category, and learn that the last number they say when counting is the total number of items in that category. - Learn about numbers 1–10 as they count objects to answer the question, “How many?” and write the total. - Separate objects into 5-groups and break apart numbers to find their hidden partners. - Listen to number stories and determine a matching expression: $2 + 1$ or $1 + 2$. - Learn how to say and read a number sentence. - Explore the idea of <i>one more</i> and <i>one less</i> with numbers 0–10 by building number stairs and number towers.	TEKS MPS K.1C K.1D K.1E K.1F K.1G TEKS K.2A K.2B K.2C K.2D K.2E K.2F (through 10) K.2I K.8A K.3C K.5A ELPS 1.A 1.B 1.D 1.E 1.F 2.C 2.D 2.E 2.F 2.I 3.B 3.C 3.D 3.E 3.F 3.G 3.J 4.C

Kindergarten Scope and Sequence (Continued)

Module	Topics and Instructional Days	Knowledge and Skills	Standards (Bold = focus standard)
			4.D 4.E 4.F 4.G 5.B
Module 2: Two-Dimensional and Three-Dimensional Shapes	A: Two-Dimensional Flat Shapes B: Three-Dimensional Solid Shapes C: Two-Dimensional and Three- Dimensional Shapes End-of-Module Assessment Task Assessments: 1 Lesson days: 8 Assessment days: 2 Total instructional days: 10	Students explore flat and solid shapes in their world. They learn to recognize and name shapes based on the number of sides and corners, or vertices, instead of naming a shape based only on what it looks like. For example, students may say, “This shape is really skinny and doesn’t look like a triangle, but it has 3 sides and 3 vertices so it must be a triangle.” Students will: - Find and describe flat triangles, squares, rectangles, and circles in the real world. - Sort and classify flat shapes as triangles, rectangles, or circles by focusing on the number of sides and vertices. - Find and describe solid shapes, including cylinders, cones, spheres, and cubes in the real world. - Sort and classify solid shapes by focusing on the number of faces, edges, and vertices. - Create simple picture graphs to organize shapes, use the graphs to answer “how many” questions, and make comparisons of more and less.	TEKS MPS K.1A K.1B K.1E K.1G TEKS K.6A K.6B K.6C K.6D K.6E K.6F K.8A K.8B K.8C ELPS 1.A 1.D 1.F 2.C 2.E 2.F 2.I 3.B 3.C 3.E 3.F 4.C 4.G



Module	Topics and Instructional Days	Knowledge and Skills	Standards (Bold = focus standard)
Module 3: Comparison of Length, Weight, Capacity, and Numbers to 10	A: Comparison of Length and Height B: Comparison of Length and Height of Linking Cube Sticks Within 10 C: Comparison of Weight D: Comparison of Capacity Mid-Module Assessment Task E: Are There Enough? F: Comparison of Sets Within 10 G: Comparison of Numerals End-of-Module Assessment Task Assessments: 2 Lesson days: 28 Assessment days: 5 Total instructional days: 33	Students compare and analyze measurable attributes of objects, including length, weight, and capacity. The concept of making comparisons is further explored as students learn to compare numerals and sets of objects. Students will: • Compare two objects side by side and use a unit of measure, such as a linking cube stick or a piece of string, to compare the lengths and heights of the objects. • Learn to line up the endpoints of objects before comparing them. • Use language such as <i>longer than</i>, <i>taller than</i>, <i>shorter than</i>, and <i>the same as</i> to compare the lengths and heights of objects. • Compare the weights of objects based simply on feel and by using a balance scale. • Use language such as <i>heavier than</i>, <i>lighter than</i>, and <i>the same as</i> to compare the weights of objects. • Compare the capacity of containers by pouring and use language such as <i>more than</i>, <i>less than</i>, and <i>the same as</i>. • Compare sets of objects to determine whether there is enough in a real-world context and use <i>more than</i> and <i>fewer than</i> to describe situations when there is not enough of something. • Count to compare two sets of objects, saying which number is <i>more than</i> and which number is <i>less than</i> the other number. • Form groups of objects that have 1 more, 1 less, or the same number as a given set.	TEKS MPS K.1C K.1D K.1E K.1F K.1G TEKS K.2E (through 10) K.2G (through 10) K.2H (through 10) K.7A K.7B K.8A K.8B K.8C K.2D K.2F K.2I K.4A (penny only) ELPS 1.A 1.E 1.F 2.C 2.E 2.F 2.I 3.B 3.C 3.D 3.E 3.F 3.G 3.J 4.C 4.D 4.E 4.F 4.G 5.B



Kindergarten Scope and Sequence (Continued)

Module	Topics and Instructional Days	Knowledge and Skills	Standards (Bold = focus standard)
Module 4: Number Pairs, Addition and Subtraction to 10	A: Compositions and Decompositions of 2, 3, 4, and 5 B: Decompositions of 6, 7, and 8 into Number Pairs C: Addition with Totals of 6, 7, 8 D: Subtraction from Numbers to 8 Mid-Module Assessment Task E: Decompositions of 9 and 10 into Number Pairs F: Addition with Totals of 9 and 10 G: Subtraction from 9 and 10 H: Patterns with Adding 0 and 1 and Making 10	Students develop skills and strategies to begin adding and subtracting within 10. Students will: - Understand how to join parts together to make a whole or a total, or to separate a whole into two parts. - Use objects, drawings, and number bonds to compose and decompose numbers into number pairs. - Use objects to act out multiple stories with the same whole each time, discovering that they can break apart a whole in different ways (e.g., $5 = 4 + 1$, $5 = 3 + 2$, and $5 = 5 + 0$). - Write an addition sentence or a subtraction sentence to match a number story. - Solve number stories in which the total is unknown, and number stories in which the parts are unknown. - Work with a number path to show the relationship between addition and subtraction when adding and then taking away the same number from a set. - Explore the fact that adding or subtracting 0 doesn't change the original number. - Use 5-groups to record how many more are needed to make 10. - Use what they know about a part–part–whole relationship to model and teach others.	TEKS MPS K.1A K.1B K.1D K.1F TEKS K.2I K.3A K.3B K.3C K.4A (nickel) K.7B K.8A ELPS 1.A 1.B 1.D 1.E 1.F 2.C 2.D 2.E 2.F 2.J 3.B 3.C 3.D 3.E 3.F 3.G 3.H 3.J 4.C 4.E 4.G 5.B
	End-of-Module Assessment Task Assessments: 2 Lesson days: 40 Assessment days: 4 Total instructional days: 44		



Module	Topics and Instructional Days	Knowledge and Skills	Standards (Bold = focus standard)
Module 5: Numbers 10–20, Counting to 100, and Understanding Work	A: Count 10 Ones and Some Ones B: Compose Numbers 11–20 from 10 ones and Some Ones; Represent and Write Teen Numbers C: Decompose Numbers 11–20, and Count to Answer “How Many?” Questions in Varied Configurations Mid-Module Assessment Task D: Extend the Say Ten and Regular Count Sequence to 100 E: Represent and Apply Compositions and Decomposition of Teen Numbers F: Understanding Work End-of-Module Assessment Task Assessments: 2 Lesson days: 27 Assessment days: 4 Total instructional days: 31	Students develop an understanding of teen numbers as 10 ones and some ones. They extend that understanding to count to 100. Students also investigate concepts about money, including how it is earned, saved, and spent. Students will: • Use objects to count within 20 and model teen numbers as 10 ones and some ones. • Use number bonds and place value cards to model and write numbers 10 to 20. • Make a 20-bead Rekenrek and use it to model numbers and count up and down within 20. • Count up to 20 objects and answer <i>how many</i> questions. • Count by tens the regular way and the <i>Say Ten</i> way (ten 1, ten 2, ten 3, ten 4 ...) within 100 to recognize the repetition of the number sequence 1–9. • Explore the connection among work, income, and the ability to buy items that are wanted or needed.	TEKS MPS K.1C K.1D K.1F K.1G TEKS K.2A K.2B K.2C K.2D K.2E (through 20) K.2F K.2G (through 20) K.2H (through 20) K.4A (all coins) K.5A K.9A K.9B K.9C K.9D ELPS 1.A 1.E 1.F 2.C 2.D 2.E 2.I 3.B 3.C 3.E 3.F 3.G 3.J 4.E 4.F 5.B 5.F 5.G



Kindergarten Scope and Sequence (Continued)

Module	Topics and Instructional Days	Knowledge and Skills	Standards (Bold = focus standard)
Module 6: Analyzing, Comparing, and Composing Shapes	A: Building and Drawing Flat and Solid Shapes B: Culminating Task End-of-Module Assessment Task Assessments: 1 Lesson days: 5 Assessment days: 1 Total instructional days: 6	Students name and sort two- and three-dimensional shapes. They apply what they know about the common features of shapes to build flat, two-dimensional shapes, and they use ordinal numbers (first, second, third) to describe the construction of the shapes. The school year closes with having students celebrate their learning by participating in a Math Olympics. Students will: • Build flat shapes using sticks to represent the sides of the shape and balls of clay to represent the vertices. • Use ordinal numbers to describe the steps for building each shape (e.g., “First, I cut the sticks. Second, I picked 3 sticks for the sides. Third, I stuck them together with clay!”). • Compose flat shapes with varying side lengths. • Draw to record shape compositions. • Engage in tasks related to numbers, measurement, operations, and geometry to celebrate learning from the whole year.	TEKS MPS K.1A K.1B K.1D K.1E TEKS K.6C K.6D K.6F K.6A K.6B K.6E ELPS 1.A 1.D 1.E 2.D 2.E 2.I 3.C 3.E 3.F 3.G 3.H 3.J 4.D 4.F 4.G 5.B 5.F 5.G
	Total instructional days: 165		



Kindergarten Standards by Lesson

Grade K Mathematical Process Standards by Lesson per Module

Standard	M1 Lessons	M2 Lessons	M3 Lessons	M4 Lessons	M5 Lessons	M6 Lessons
K.1A		1		2, 6, 17, 18, 25, 27–29, 33, 36		3
K.1B		6–8		5, 16		1
K.1C	5, 10		2, 6, 16	7, 8, 11	10	
K.1D	15–19, 22		24	3, 13, 20–22, 31, 34, 39	6, 13, 17, 18	2
K.1E	5, 8, 9	6	4, 10, 12, 15, 20, 21, 25, 26			4
K.1F	1–4, 6, 7, 11, 12, 14, 20, 23, 24, 26–33		1, 3, 7–9, 13, 14, 17–19, 22, 23, 27, 28	1, 4, 9, 10, 12, 14, 15, 19, 23, 24, 26, 30, 32, 35, 37, 38, 40	1, 2, 4, 5, 7, 8, 11, 12, 19, 20, 23	
K.1G	4, 6, 8, 13, 21, 25, 34, 35	2–5	5, 11		3, 9, 14–16, 21, 22, 24	



Grade K TEKS Standards by Lesson per Module

Standard	M1 Lessons	M2 Lessons	M3 Lessons	M4 Lessons	M5 Lessons	M6 Lessons
K.2A	4–36				1–16	
K.2B	13–29				6–9	
K.2C	4–36				10–16	
K.2D	6–36		4–7		10, 23, 24	
K.2E	13–35		4–7, 16–28		1–24	
K.2F	30–35		4–7, 16–28		1–25	
K.2G			4–7, 16–28		1–16, 21–24	
K.2H			19–28		15, 21–24	
K.2I	7–17		4–7	1–40		
K.3A				1–24, 33–40		
K.3B				1–24, 19–40		
K.3C				3, 13–24, 27, 29–40		
K.4A			8–12, 18	1–6, 28	25–27	
K.5A	30–32				1–9, 17–24, 27	
K.6A		1–8				1–4
K.6B		5–8				1–3
K.6C		5–8				1–3
K.6D		1–7				1–4
K.6E		1–4, 8, 8				1–4
K.6F		1–4				1–4
K.7A			1–15			
K.7B			1–15, 19–24	4		
K.8A	1–6, 13–17	1–7	4, 19–24	20, 31	27	
K.8B		1–7	11, 19–24			
K.8C		1–7	4, 19–24			
K.9A					24–27	
K.9B					24–27	
K.9C					24–27	
K.9D					24–27	



Grade K English Language Proficiency Standards by Lesson per Module

Standard	M1 Lessons	M2 Lessons	M3 Lessons	M4 Lessons	M5 Lessons	M6 Lessons
K.1A	13, 14, 16	4	4, 25	4, 37	17, 20, 25	4
K.1B	11			1, 6, 10, 29, 32		
K.1D	3, 5, 12, 13	1		35		1
K.1E	2, 3		1, 2	19, 20, 22, 33, 35	15	1
K.1F	4–6, 11	6	8	4	26	
K.2C	1–3, 13, 16, 30	1, 6	8, 16	12, 40	16	
K.2D	19			10, 29, 32	26	4
K.2E	13, 14	6	5, 26	3	11, 18	1
K.2F	1, 19	2, 8	16	17		
K.2I	6, 7, 21	2	7	1, 6, 10, 13, 16, 20, 22, 25, 31, 32, 35	21	3
K.3B	1, 3, 4, 13, 14, 16–18, 35	4	2	1, 4, 17	11	
K.3C	13	6	11, 25	20	19, 24	2
K.3D	4–6		13, 17	12, 19, 23, 24, 26		
K.3E	19	2, 6, 8	5, 16	1, 10, 25, 32, 40	26	3
K.3F	1–3, 6	8	4, 10	17	5	3
K.3G	2, 4–6, 13, 14, 18, 21–22		4	32	7	4
K.3H				1, 28, 33, 35		1, 3
K.3J	29		9, 13, 15, 19, 22, 26	6, 25, 26	27	1
K.4C	1, 2, 7, 13, 14	1, 3, 4, 8	1, 9, 11, 13, 16, 24, 26	1		
K.4D	13, 14		19, 22			2, 3
K.4E	14, 30		4, 9, 15	35	26	
K.4F	1–12, 14, 30–35		14, 16–22, 24		1, 4, 5, 7, 15, 27	4
K.4G	1, 2, 29, 30, 35	1	4, 9, 14, 25	4, 8, 13, 16, 24, 31, 32, 35		4
K.5B	13, 35		14, 20, 22, 23	20	8, 22	4
K.5F					10, 21, 27	4
K.5G					11, 21	3, 4



Kindergarten Development of Fluency

Overview

Fluency activities are designed to promote automaticity and flexibility by engaging students in ways that build fluency from conceptual understanding. The fluency activities in each lesson provide students with strategic learning opportunities to develop their proficiency with specific TEKS. While all TEKS are included in the instructional materials, some TEKS may not be practiced in a fluency activity.

Fluency Year-at-a-Glance

For specific TEKS descriptions and student expectations, refer to the relevant Fluency Close-Up tables.

KINDERGARTEN	Module						
TEKS	1	2	3	4	5	6	ADSY
K.2A	•	•	•	•	•		•
K.2B	•		•		•	•	
K.2C	•	•	•	•	•		•
K.2D	•	•	•	•	•		•
K.2E	•		•	•	•		•
K.2F	•		•	•	•		•
K.2G			•	•			•
K.2H							
K.2I		•	•	•	•	•	•
K.3A	•		•	•			•
K.3B	•		•	•			
K.3C				•			
K.4A				•	•	•	
K.5A	•		•	•	•	•	
K.6A		•				•	

KINDERGARTEN	Module						
TEKS	1	2	3	4	5	6	ADSY
K.6B		•					
K.6C							
K.6D							
K.6E							
K.6F		•					
K.7A			•				
K.7B			•	•			•
K.8A			•				
K.8B			•				
K.8C			•	•	•	•	
K.9A							
K.9B							
K.9C							
K.9D							



Fluency Close-Up

Numbers and Operations

The student applies mathematical process standards to understand how to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system. The student is expected to:

TEKS	Module	Lessons
K.2A	1	1–11, 13–14, 16–18, 20–34
	2	3, 5, 7
	3	8, 20, 25, 28
	4	5, 13, 19, 25–27, 32, 36, 40
	5	1, 7, 12–13, 15–16, 20, 22–23
	ADSY	1–6, 15, 17, 20, 24–25
K.2B	1	2, 14, 16, 26–27
	3	18
	5	10–15, 17, 20
	6	2
K.2C	1	6–11, 16–17, 19, 21, 25–29, 34
	2	1–4, 6, 8
	3	20, 25, 28
	4	19
	5	2–6, 8, 14, 16–21
	ADSY	1–5, 7, 20
K.2D	1	1–4, 8–12, 15, 17–18, 20, 22–24, 28–29, 31, 34
	2	1, 3, 6
	3	5, 7, 9–26, 28
	4	7, 12–13, 25, 29
	5	3–7, 9, 14, 16–17, 21–24
	ADSY	2–4, 6–12, 24

TEKS	Module	Lessons
K.2E	1	5, 16–19, 28, 33, 35
	3	1–4, 6–8, 10, 14–15, 17–19, 21–24, 26
	4	2, 4, 8, 19
	5	9, 18, 23–24
	ADSY	8, 13–15, 20
K.2F	1	19, 30–32, 35
	3	1–4, 6–8, 13–15, 18–19, 22–24
	4	2–3, 5, 8, 13, 20–21, 25–27, 32, 36, 38
	5	2–3, 9, 11, 25, 27
	6	N/A
	ADSY	5, 8–12, 14–15, 17, 21, 24–25
K.2G	3	4, 11, 13, 16–17, 21, 26
	4	4, 8, 15, 19
	ADSY	13, 15, 20
K.2H	N/A	N/A
K.2I	2	1–2, 5–6, 8
	3	3, 5–9, 11–18, 20–21, 26–27
	4	1–2, 4–18, 22–26, 28–40
	5	1, 4–9, 19–24
	6	2–3
	ADSY	7–19, 22–25



The student applies mathematical process standards to develop an understanding of addition and subtraction situations in order to solve problems. The student is expected to:

TEKS	Module	Lessons
K.3A	1	12, 14–15, 17, 21, 23, 25, 30
	3	1
	4	1–2, 4–5, 7, 11, 15–18, 21–23, 26–28, 30–31, 33–34, 37, 39–40
	6	N/A
	ADSY	8–10, 13–14, 16–19, 21–23, 25
K.3B	1	12, 14–15, 25
	3	3, 6, 9, 11–12, 14, 27
	4	2, 9, 38
K.3C	4	30, 38

The student applies mathematical process standards to identify coins in order to recognize the need for monetary transactions. The student is expected to:

TEKS	Module	Lessons
K.4A	4	3, 30, 35
	5	25–27
	6	1



Algebraic Reasoning

The student applies mathematical process standards to identify the pattern in the number word list. The student is expected to:

TEKS	Module	Lesson
K.5A	1	20, 24
	3	1, 5, 7, 10–11, 14, 24
	4	5, 7, 11–13, 19, 23–27, 29, 32, 35–36
	5	2, 7, 10–19, 21–24
	6	1
	ADSY	6, 14–15, 17–18, 20, 22–25

Geometry and Measurement

The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to:

TEKS	Module	Lesson
K.6A	2	3–4, 7
	6	1
K.6B	2	6–8
K.6C	N/A	N/A
K.6D	N/A	N/A
K.6E	N/A	N/A
K.6F	2	2, 4
	6	N/A



The student applies mathematical process standards to directly compare measurable attributes. The student is expected to:

TEKS	Module	Lesson
K.7A	3	2, 4–6, 16, 27
K.7B	3	2, 4–6, 16, 27
	4	4, 8, 15
	ADSY	13, 15

Data Analysis

The student applies mathematical process standards to collect and organize data to make it useful for interpreting information. The student is expected to:

TEKS	Module	Lesson
K.8A	3	4, 11, 16
K.8B	3	4, 11, 16
K.8C	3	4, 11, 13, 16, 21, 26
	4	33–34, 38
	5	25–27
	6	1

Personal Financial Literacy

The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:

TEKS	Module	Lesson
K.9A	N/A	N/A
K.9B	N/A	N/A
K.9C	N/A	N/A
K.9D	N/A	N/A

Manipulatives and Supplies Lists

GRADE K MANIPULATIVES LIST		
Qty.	Item(s)	Description
1	5-group cards	<i>demonstration set</i>
1	20-bead Rekenrek	
1	100-bead Rekenrek	
1	Attribute blocks	<i>desk set</i>
9	Balance scales	<i>(1 per teacher and 1 per group of 3 students)</i>
500	Centimeter cubes	
2	Classroom Money Set	<i>Should include nickels, dimes, quarters and bills</i>
250	Counting bears	<i>(10 per student and 10 per teacher)</i>
48	Dot Dice	<i>(2 per student)</i>
1	Foam die	<i>Large</i>
24	Funnels	
24	Geoboards	
6	Geometric Solids, 1 inch	<i>Should include a cone, a cylinder, a cube, and a sphere</i>
2	Place value cards	<i>basic student sets</i>
1	Place value cards	<i>demonstration set</i>
1000	Linking cubes	<i>(of at least 5 different colors)</i>
1	Magnetic shapes	<i>(1 set for teacher)</i>
2	Modeling clay	<i>packs (4 oz of red, blue, green and yellow)</i>
1	Number bond cards	
2	Pattern block sets	
500	Pennies	<i>plastic (20 per student and 20 per teacher)</i>
2	Rekenrek build-it kit	<i>(each kit includes materials to make 12, 20-bead student Rekenreks)</i>
24	Rulers	<i>inch and metric</i>
24	Ten-sided dice	
600	Two-color counters	
5	Wax craft sticks	<i>sets of 48</i>



GRADE K SUPPLIES LIST

Qty.	Item(s)	Description
2	Apples	
24	Bags	Counting and sorting Bags with concrete materials such as white beans spray painted red on one side, twigs, dried leaves, dry pasta, pennies, plates, forks, spoons, or cups (1 bag of any one item per student)
50	Bags	paper, small (2 per student)
8	Bag	of about 10 Lego-type building blocks (1 bag per group of 3 students)
8	Bag of objects	to weigh including a pencil, an eraser, a marker, a small student's pair of scissors, a linking cube, and a small block or toy (1 bag per pair or small group)
580	Beans	Dry beans, such as pinto, half painted red and half painted white
1	Bell	chime, or other gentle noise maker
1	Bin	or basket
100	Blank paper	Sheets of blank paper
1	Blue sock	
2	Books	1 light and 1 heavy in weight
1	Bottle of water	
10	Cardboard	Cut out shapes, items, etc.
1	Cardboard frame	
2	Chairs	
20	Chart paper	Sheets of chart paper
10	Circular magnets	
—	Classroom toys	Assortment of classroom toys with a wide range of attributes and obvious differences to facilitate sorting
24	Clipboards	
24	Colored pencils	Sets of colored pencils
200	Construction paper	or foam sheets
—	Containers	for liquid, including a small bottle, vase, mug, and bowl (1 set for the teacher)
24	Containers	for measuring, small, such as a coffee or beverage scoop, $\frac{1}{4}$ -cup measure teacup, bowl, small drinking cup, small box, or tablespoon
125	Cotton balls	(5 per student and 5 per teacher)
24	Counting and sorting bags	with concrete materials such as white beans spray painted red on one side, twigs, dried leaves, dry pasta, pennies, plates, forks, spoons, or cups (1 bag of any one item per student)
1	Craft sticks	Pack of craft sticks
24	Crayons	Sets of crayons
1	Document camera	



GRADE K SUPPLIES LIST

Qty.	Item(s)	Description
24	Dry erase markers	<i>(1 per student, 1 green and 1 red per teacher)</i>
24	Egg cartons	
50	Elastic string	<i>pieces, 12 inches long</i>
24	Envelopes	<i>letter-sized</i>
48	Flowers	<i>Artificial flowers (2 identical per student)</i>
1	Framed portrait	<i>of the teacher at 5 or 6 years old</i>
24	Folders	
1	Glove	<i>right hand with the numbers 1–5 on the fingertips</i>
3	Hula hoops	
240	Index cards	<i>(10 per student)</i>
240	Lima beans	
1	Lined writing paper	<i>Pack of lined writing paper</i>
24	Magnifying glass	<i>(optional)</i>
25	Markers	<i>packs (1 per student, 1 per teacher)</i>
1	Masking tape	<i>Roll of colorful masking tape</i>
—	Pairs of similar items	<i>that are different in one aspect (e.g., two tennis balls, one white and one yellow; two identical cups, one with a straw and one empty; two squares, one turned to be a kite and one parallel to the floor; two identical pencil boxes, each labeled with a different student's name; two identical pencils, one new and one used)</i>
—	Pairs of socks	<i>(or any other pairs of items available) in a variety of patterns, colors, sizes, and lengths in a laundry bag</i>
12	Paper bag	<i>Prepared paper bag filled with various items to measure (e.g., pencil, eraser, glue stick, toy car, small block, 12-inch piece of string, marker, student's scissors, crayon, tower of 5 linking cubes) per student pair</i>
12	Paper Bowls	<i>(1 per student pair)</i>
24	Paper clips	
24	Paper Plates	<i>small</i>
24	Personal white boards	<i>Build from 1 white cardstock, 1 red cardstock, and 1 sheet protector per student</i>
—	Pictures	<i>Large pictures for the board depicting the sun, raindrops, and snowflakes; smaller pictures in an opaque bag or envelope depicting items corresponding to each of the weather types</i>
24	Pipe cleaner or chenille wire stem	<i>or lanyard for bracelet per student</i>
24	Plastic bags	<i>resealable</i>
24	Plastic tray	



GRADE K SUPPLIES LIST

Qty.	Item(s)	Description
480	Pony beads	<i>10 red and 10 white per student for bracelets</i>
1	Puppet	
24	Ribbon	<i>meter long</i>
240	Rubber bands	<i>for Geoboards (10 per student)</i>
25	Scissors	<i>(1 per student, 1 per teacher)</i>
—	Small stickers	<i>Used to cover dice faces</i>
5	Sticky notes	<i>Pads of sticky notes</i>
1000	Straws	<i>coffee stirrers, or craft sticks (40 per student and 40 per teacher)</i>
24	Student scissors	<i>(1 per student)</i>
24	Popcorn	<i>or a different snack</i>
1	String	<i>Roll of string</i>
—	Stuffed animals	
24	Tableware sets	<i>(forks, plates, napkins, and spoons)</i>
10	Tagboard	<i>Pieces of tagboard</i>
1	Tape	<i>Roll of tape</i>
1	Ten-frame cards	<i>Template found in Module 5 Lesson 9</i>
50	Uncooked rice	<i>Cups of uncooked rice, 2 cups for the teacher and each student</i>

ADSY ITEMS

Qty.	Item(s)	Description
250	Coins	<i>(nickels, dimes, and quarters) 10 per student, 10 per teacher</i>
24	Cups	<i>plastic (1 per student)</i>
24	Cups	<i>small (1 per student)</i>
24	Five-frame cards	<i>Five-frame cards (1 set per student)</i>
24	Foam square	<i>Foam square (1 per student)</i>
24	Hundreds charts	<i>Hundreds charts (1 per student)</i>
—	Small stickers	<i>to cover dice faces</i>
12	Three-dimensional shapes	<i>Three-dimensional shapes (cone, cube, cylinder, and sphere) 1 set per pair of students</i>
12	Two-dimensional shapes	<i>(circles, rectangles, squares, and triangles) 1 set per pair of students</i>



Grade K Module 1

Tips for Families

Key Concepts Overview

Focus TEKS: **K.2A, K.2B, K.2C, K.2D, K.2E, K.2F, K.2I, K.8A**

In Module 1, students observe their world and begin to compare and classify objects. They focus on ordering, counting, and writing numbers to represent up to 10 objects to answer *how many* questions. Your student will:

- ☐ Classify, count, and **sort** objects, **match** pairs of objects according to attribute (color, size, purpose, pattern, and position), and tell if pairs of objects are exactly the same or not exactly the same.
- ☐ Group items into categories, count the items in each category, and learn that the last number they say when counting is the **total** number of items in that category.
- ☐ Learn about **numbers 1–10** as they count objects to answer the question, “How many?” and write the total.
- ☐ Separate objects into **5-groups** and break apart numbers to find their **hidden partners**.
- ☐ Listen to **number stories** and determine a matching expression: $2 + 1$ or $1 + 2$.
- ☐ Learn how to say and read a **number sentence**.
- ☐ Explore the idea of **one more** and **one less** with numbers 0–10 by building number stairs and **number towers**.

You can use the checklist above to help monitor your student’s progress of the knowledge and skills in this module. Daily sample problems with solutions and thought bubbles are found in the Homework Helper pages in the Succeed Student Edition to help you support your student as they work at home.

Additional Ways to Help at Home

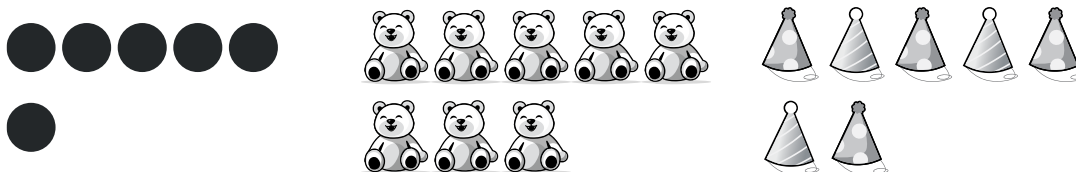
- Gather a group of household items, such as kitchen utensils or articles of clothing. Encourage your student to match pairs of items and explain how they are similar and different. Guide your student to use attributes (color, size, purpose, pattern, or position) to compare the items. For example, your student might say, “Both hats are red, but one has stripes,” or “These are both spoons, but the big spoon is for serving and the smaller one is for eating.”
- Use Sunrise, Sunset Counting to practice counting forward and backward. Guide your student to rise gradually from a crouching position to standing on tiptoes as they count from 1 to 5. Then have them gradually return to a crouching position as they count back down to 1. Once they can do this comfortably within 5, have them count forward and backward to 8 and then to 10.
- While driving or walking with your student, ask them to think of ways to sort cars, trucks, and other vehicles into categories (e.g., by size, color, function). Choose a category and challenge your student to find and count vehicles that belong in that category.



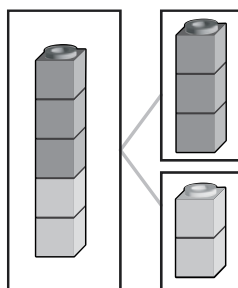
- Encourage your student to count a group of up to 10 objects and tell how many: “There are 6 blocks!” Then have them separate the objects into two groups, noticing the hidden partners or smaller numbers “hiding” inside the larger quantity: “I separated 6 blocks into 2 blocks and 4 blocks.”
- Hidden Partners with Dice: Roll a die and call out the number (e.g., “4”). Invite your student to find the hidden partners (e.g., “I see 1 and 3 hiding inside 4”). Note: If you roll a 1, roll again until you get a higher number so your student can practice finding hidden partners.
- Place 6 objects, such as dried beans or pasta, in a line. Invite your student to count the objects. Then, rearrange the objects into a circle. Ask, “How many are there now? Did the number of objects change?” If needed, support your student by pointing out that there are still 6. Repeat this using other quantities (within 10) in different arrangements (a line, rows, a circle, or scattered).

Terms

5-group (*Grupo de 5*): group objects in a row of 5 and a row of some more



Hidden partners: two smaller numbers that add up to the whole



There is a 3 tower and a 2 tower inside the 5 tower.



Number sentence: tells how numbers can be put together or taken apart

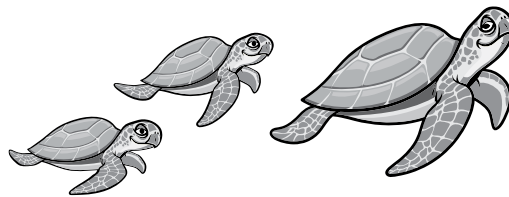


3 is 2 and 1

$$3 = 2 + 1$$

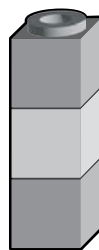
Number Sentence

Number story (*Historia numérica*): a math story with numbers



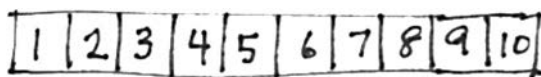
There are 3 turtles. There is 1 big turtle with 2 little turtles.

Number tower (*Torre de números*): A stack of cubes or boxes, one on top of another

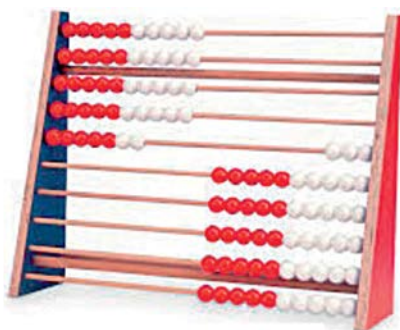


Models

Number path



Rekenrek (Slavonic abacus having beads with a color change at the five)



Grado K Módulo 1

Consejos Para Las Familias

Resumen De Los Conceptos Clave

Foco TEKS: K.2A, K.2B, K.2C, K.2D, K.2E, K.2F, K.2I, K.8A

En el Módulo 1, los estudiantes observan su mundo y comienzan a comparar y clasificar objetos. Se centran en ordenar, contar y escribir números para representar hasta 10 objetos para responder preguntas de *cuántos*. Su estudiante:

- ☐ Clasificará, contará y **ordenará** objetos, **coincidirá** pares de objetos según el atributo (color, tamaño, propósito, patrón y posición) y dirá si los pares de objetos son exactamente iguales o no.
- ☐ Agrupará los artículos en categorías, contará los artículos en cada categoría y aprenderá que el último número que dicen al contar es la cantidad **total** de artículos en esa categoría.
- ☐ Aprenderá sobre **los números del 1 al 10** mientras cuentan objetos para responder a la pregunta: “¿Cuántos?” y escribirá el total.
- ☐ Separará los objetos en **grupos de 5** y dividirá los números para encontrar a sus **parejas ocultas**.
- ☐ Escuchará las **historias numéricas** y determinará una expresión que coincida: $2 + 1$ o $1 + 2$.
- ☐ Aprenderá a decir y leer una **oración numérica**.
- ☐ Explorará la idea de **uno más** y **uno menos** con los números del 0 al 10 construyendo escaleras de números y **torres de números**.

Puede usar la lista anterior para supervisar el progreso de su estudiante en cuanto a los conocimientos y habilidades de este módulo. En las páginas de Homework Helpers de Succeed, Student Edition encontrará ejemplos de problemas diarios con soluciones y burbujas de pensamiento para ayudarlo a apoyar a su estudiante mientras trabaja en casa.

Formas Adicionales De Ayudar En Casa

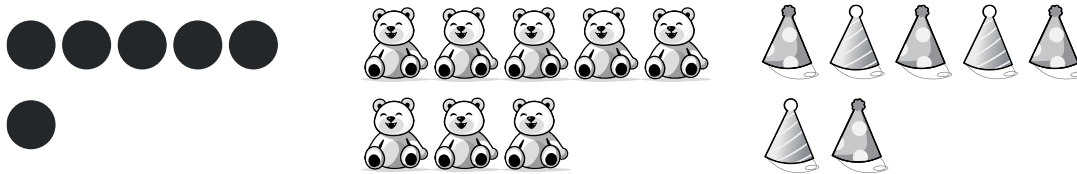
- Recopile un grupo de artículos del hogar, como utensilios de cocina o de vestir. Anime a su estudiante a hacer coincidir pares de artículos y explique cómo son similares y diferentes. Guíe a su estudiante a usar atributos (color, tamaño, propósito, patrón o posición) para comparar los artículos. Por ejemplo, su estudiante podría decir: “Ambos sombreros son rojos, pero uno tiene rayas” o “Estas son ambas cucharas, pero la cuchara grande es para servir y la más pequeña es para comer”.
- Use el conteo de amanecer y atardecer para practicar contar hacia adelante y hacia atrás. Guíe a su estudiante a levantarse gradualmente de una posición en cuclillas a pararse de puntillas mientras cuentan del 1 al 5. Luego, pídale que vuelvan gradualmente a una posición en cuclillas a medida que vuelven a contar hasta 1. Una vez que puedan hacer esto cómodamente dentro de 5, haga que cuenten hacia adelante y hacia atrás hasta 8 y luego hasta 10.



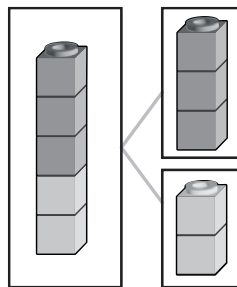
- Mientras conduce o camina con su estudiante, pídale que piense en formas de clasificar los autos, camiones y otros vehículos en categorías (p. ej., por tamaño, color, función). Elija una categoría y desafíe a su estudiante a encontrar y contar los vehículos que pertenecen a esa categoría.
- Anime a su estudiante a contar un grupo de hasta 10 objetos y decir cuántos: “¡Hay 6 bloques!” Luego pídale que separen los objetos en dos grupos, notando que las parejas ocultas o números más pequeños se “esconden” dentro de la cantidad más grande: “Separé 6 bloques en 2 bloques y 4 bloques”.
- Parejas ocultas con dados: tire un dado y diga el número (p. ej., “4”). Invite a su estudiante a encontrar a las parejas ocultas (p. ej., “Veo al 1 y al 3 escondidos dentro del 4”). Nota: Si saca un 1, vuelva a tirar hasta que obtenga un número más alto para que su estudiante pueda practicar buscar parejas ocultas.
- Coloque 6 objetos, como frijoles secos o pasta, en una línea. Invite a su estudiante a contar los objetos. Luego, reorganice los objetos en un círculo. Pregunte: “¿Cuántos hay ahora? ¿Cambió el número de objetos?” Si es necesario, apoye a su estudiante diciendo que todavía hay 6. Repita esto usando otras cantidades (dentro de 10) en diferentes disposiciones (una línea, filas, un círculo o dispersos).

Términos

Grupo de 5: grupos de objetos en una fila de 5 y una fila de algunos más



Parejas ocultas: dos números más pequeños que suman el entero



Hay una torre 3 y una torre 2 dentro de la torre 5.



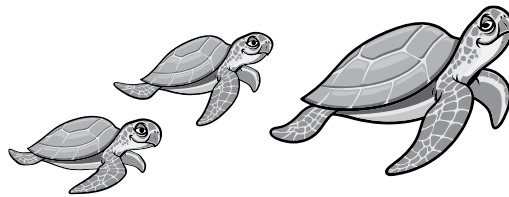
Oración numérica: indica cómo se pueden juntar o descomponer los números



3 es 2 y 1
 $3 = 2 + 1$

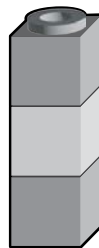
Oración numérica

Historia numérica: un problema matemático con números



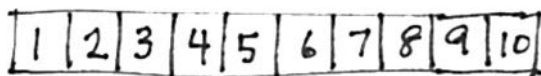
Hay 3 tortugas. Hay 1 tortuga grande con 2 tortugas pequeñas.

Torre de números: una pila de cubos o cajas, uno encima del otro

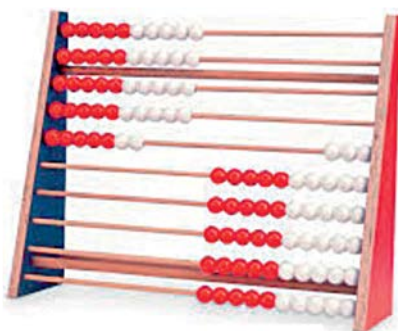


Modelos

Línea numérica



Rekenrek (ábaco eslavo con cuentas con un cambio de color en el cinco)



Grade K Module 2

Tips for Families

Key Concepts Overview

Focus TEKS: **K.6A, K.6B, K.6C, K.6D, K.6E, K.6F, K.8A**

In Module 2, students explore flat and solid shapes in their world. They learn to recognize and name shapes based on the number of sides and corners, or vertices, instead of naming a shape based only on what it looks like. For example, students may say, “This shape is really skinny and doesn’t look like a triangle, but it has 3 sides and 3 vertices so it must be a triangle.” Your student will:

- ☐ Find and describe flat **triangles, squares, rectangles, and circles** in the real world.
- ☐ Sort and classify **flat shapes** as triangles, rectangles, or circles by focusing on the number of **sides and vertices**.
- ☐ Find and describe **solid shapes**, including **cylinders, cones, spheres, and cubes** in the real world.
- ☐ Sort and classify solid shapes by focusing on the number of **faces, edges, and vertices**.
- ☐ Create simple **picture graphs** to organize shapes, use the graphs to answer “how many” questions, and make comparisons of more and less.

You can use the checklist above to help monitor your student’s progress of the knowledge and skills in this module. Daily sample problems with solutions and thought bubbles are found in the Homework Helper pages in the Succeed Student Edition to help you support your student as they work at home.

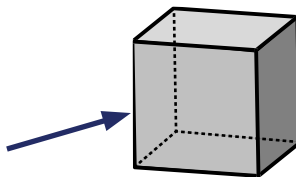
Additional Ways to Help at Home

- Ask your student to count the straight sides and corners of a shape first, and then have them name the shape. For example, “How many straight sides does this shape have? How many corners, or vertices, does this shape have? What do we call this shape?”
- Play Beep Number. Say three or four numbers in order but replace one number with the word *beep*. Your student then says what the “beep number” is. For example, if you say 5, 6, 7, beep, your student responds, 8.
- Use uncooked spaghetti, string, pipe cleaners, or sticks to make various shapes. Encourage your student to recreate the shapes. Ask questions such as, “How many corners, or vertices, does this shape have?” Switch roles and invite your student to make the shape and ask the questions.
- Practice subitizing, or just seeing how many there are of an object, with your student. Quickly flash a few fingers (5 or fewer), and then hide them behind your back. Ask your student to tell how many fingers she saw.
- Play I Spy with flat and solid shapes. For example, say, “I spy a red shape in the kitchen.” Invite your student to ask questions (e.g., Is it a solid? Is it a sphere? Is it under the table?) until he correctly identifies the item you spied. Take turns spying shapes.
- Show your student 4 fingers or fewer. Ask, “How many more to make 5?”

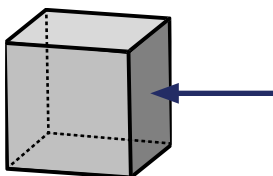


Terms

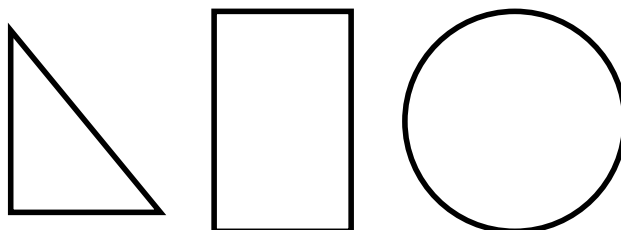
Edge: the place where 2 faces meet



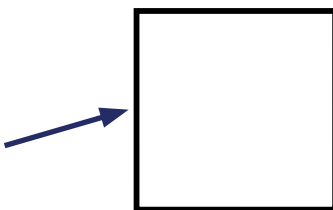
Face: a flat side of a solid shape



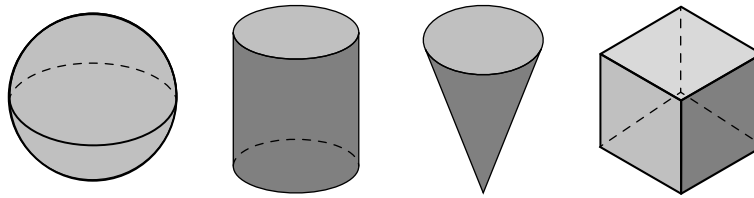
Flat shape: a two-dimensional shape that, when put on a table, lays down and does not rise above the tabletop



Side: the line that connects two vertices of the shape



Solid shape (Sólido): a three-dimensional shape that, when placed on a table, stands tall and rises above the tabletop

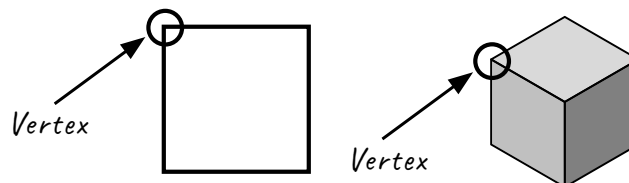


Picture graph: a way to sort and show information by using pictures

Favorite Special

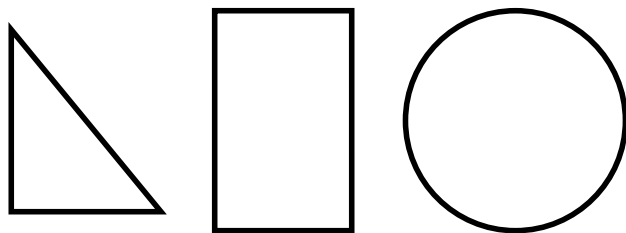
		
		
		
		
		
Art	P.E.	Music

Vertex (Vértice): a point where the sides meet in a two-dimensional shape and the point where the edges meet in a three-dimensional shape; *vertices* is the plural form of vertex

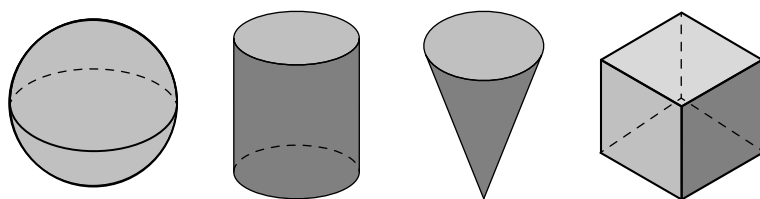


Models

Two-dimensional shapes



Three-dimensional shapes



Grado K Módulo 2

Consejos Para Las Familias

Resumen De Los Conceptos Clave

Foco TEKS: K.6A, K.6B, K.6C, K.6D, K.6E, K.6F, K.8A

En el Módulo 2, los estudiantes exploran **formas planas** y **sólidas** en su mundo. Aprenden a reconocer y nombrar formas según la cantidad de **lados** y esquinas, o **vértices**, en lugar de nombrar una forma basándose solo en su apariencia. Por ejemplo, los estudiantes pueden decir: “Esta forma es realmente delgada y no parece un **triángulo**, pero tiene 3 lados y 3 vértices, por lo que debe ser un triángulo”. Su estudiante:

- ☐ Encontrará y describirá **triángulos** planos, **cuadrados**, **rectángulos** y **círculos** en el mundo real.
- ☐ Ordenará y clasificará las **formas planas** como triángulos, rectángulos o círculos centrándose en la cantidad de **lados** y **vértices**.
- ☐ Encontrará y describirá **formas sólidas**, incluyendo **cilindros**, **conos**, **esferas** y **cubos** en el mundo real.
- ☐ Ordenará y clasificará las formas sólidas centrándose en la cantidad de **caras**, **bordes** y **vértices**.
- ☐ Creará **gráficas que usan ilustraciones** simples para organizar formas, usar los gráficos para responder preguntas acerca de “cuántos” y hacer comparaciones de más y menos.

Puede usar la lista anterior para supervisar el progreso de su estudiante en cuanto a los conocimientos y habilidades de este módulo. En las páginas de Homework Helpers de Succeed, Student Edition encontrará ejemplos de problemas diarios con soluciones y burbujas de pensamiento para ayudarlo a apoyar a su estudiante mientras trabaja en casa.

Formas Adicionales De Ayudar En Casa

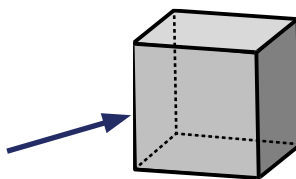
- Pídale a su estudiante que cuente primero los lados rectos y las esquinas de una forma y luego pídale que nombre la forma. Por ejemplo, “¿Cuántos lados rectos tiene esta forma? ¿Cuántas esquinas tiene esta forma? ¿Cómo se llama esta forma?”.
- Reproduzca el número de bip. Diga tres o cuatro números en orden, pero reemplace un número con la palabra *bip*. Después su estudiante dice cuál es el “número de bip”. Por ejemplo, si usted dice 5, 6, 7, bip, su estudiante responde 8.
- Use espaguetis crudos, cuerdas, limpiapipas o palos para hacer varias formas. Anime a su estudiante a recrear las formas. Haga preguntas como: “¿Cuántas esquinas o vértices tiene esta forma?” Cambie de roles e invite a su estudiante a recrear la forma y hacer las preguntas.
- Practique la subitización, o simplemente vea cuántos hay de un objeto, con su estudiante. Muéstrole rápidamente algunos dedos (5 o menos) y luego escóndalos detrás de su espalda. Pídale a su estudiante que diga cuántos dedos vio.



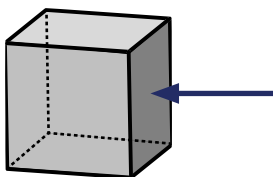
- Juegue al Veo, veo con formas planas y sólidas. Por ejemplo, diga: “Veo una forma roja en la cocina”. Anime a su estudiante a hacer preguntas (por ejemplo, ¿Es sólido? ¿Es una esfera? ¿Está debajo de la mesa?) hasta que identifique correctamente el objeto que usted eligió. Tomen turnos para elegir formas.
- Muéstrela a su estudiante 4 dedos o menos. Pregunte: “¿Cuántos dedos más se necesitan para formar 5?”.

Términos

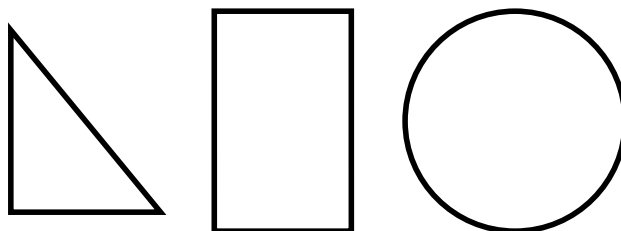
Borde: el lugar donde se encuentran 2 caras



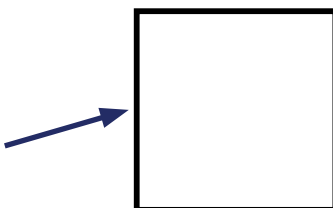
Cara: un lado plano de una forma sólida



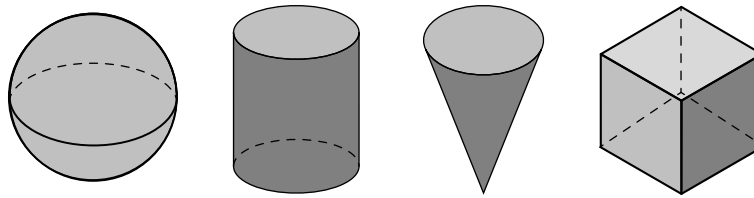
Forma plana: una forma bidimensional que, cuando se coloca sobre una mesa, se coloca y no se eleva por encima de la mesa.



Lado: la línea que conecta dos vértices de la forma



Forma sólida: una forma tridimensional que, cuando se coloca sobre una mesa, se alza y se eleva por encima de la mesa

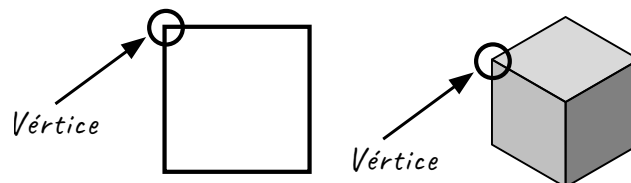


Gráficas que usan ilustraciones: una forma de ordenar y mostrar información mediante el uso de imágenes

Especial favorito

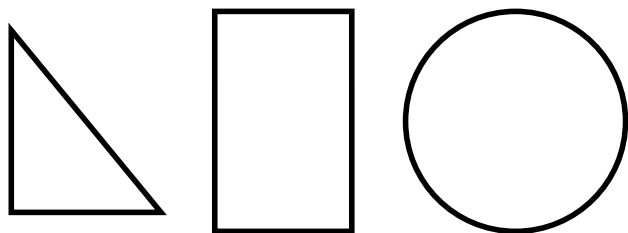
		
		
		
		
		
Arte	E.F.	Música

Vértice: un punto donde los lados se encuentran en una forma bidimensional y el punto donde los bordes se encuentran en una forma tridimensional; *vértices* es la forma plural de *vértice*

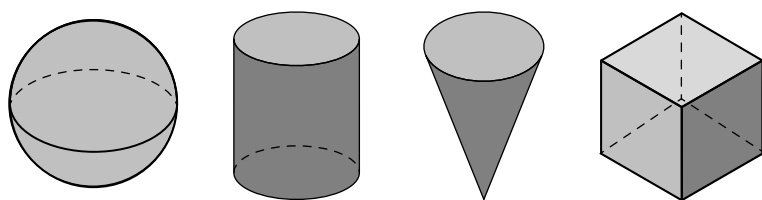


Modelos

Formas bidimensionales



Formas tridimensionales



Grade K Module 3

Tips for Families

Key Concepts Overview

Focus TEKS: K.2E, K.2G, K.2H, K.7A, K.7B, K.8A, K.8B, K.8C

In Module 3, students compare and analyze measurable attributes of objects, including length, weight, and capacity. The concept of making comparisons is further explored as students learn to compare numerals and sets of objects. Your student will:

- ☐ **Compare** two objects side by side and use a unit of measure, such as a linking cube stick or a piece of string, to compare the **lengths** and **heights** of the objects.
- ☐ Learn to line up the **endpoints** of objects before comparing them.
- ☐ Use language such as **longer than**, **taller than**, **shorter than**, and **the same as** to compare the lengths and heights of objects.
- ☐ Compare the **weights** of objects based simply on feel and by using a **balance scale**.
- ☐ Use language such as **heavier than**, **lighter than**, and **the same as** to compare the weights of objects.
- ☐ Compare the **capacity** of containers by pouring and use language such as **more than**, **less than**, and **the same as**.
- ☐ Compare sets of objects to determine whether there is **enough** in a real-world context and use *more than* and **fewer than** to describe situations when there is not enough of something.
- ☐ Count to compare two sets of objects, saying which number is *more than* and which number is *less than* the other number.
- ☐ Form groups of objects that have 1 more, 1 less, or the same number as a given set.

You can use the checklist above to help monitor your student's progress of the knowledge and skills in this module. Daily sample problems with solutions and thought bubbles are found in the Homework Helper pages in the Succeed Student Edition to help you support your student as they work at home.

Additional Ways to Help at Home

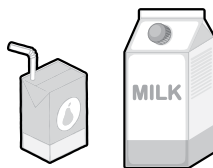
- Play I Spy with household items, providing clues related to their lengths (longer/shorter) and heights (taller/shorter). For example, say, "I spy something longer than an eraser." Encourage your student to ask questions (e.g., "Is it a cup?" "Is it a spoon?") until they correctly identify the item you spied.
- Ask your student to count and compare their own objects. "Do you have more toy cars or more action figures? More puzzles or more dolls?"
- Ask your student to compare the weights of two objects by placing one in each hand and seeing which hand drops lower or feels heavier.
- Help your student compare the capacity of two household containers. Invite your student to pour liquid, rice, or sand from Container A into Container B. Ask your student to tell whether Container A holds more than, less than, or the same amount as Container B.



- Use playing cards to compare numbers. Remove the jacks, queens, kings, aces, and jokers. Then place the deck facedown between two players. Each player takes a card. Players flip over their cards at the same time and compare numbers. The player with the greater number takes both cards and states, for example, “9 is more than 6.” Players continue until all the cards have been flipped over. The player with the most cards wins. Play again, only this time the player with the smaller number collects both cards and states, for example, “6 is less than 9.”

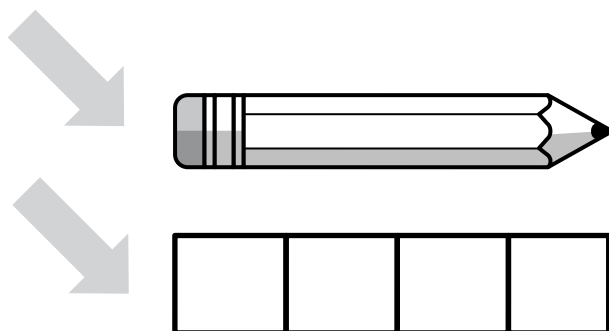
Terms

Capacity (*Capacidad*): the amount of liquid a container can hold when it’s completely full



The capacity of the juice box is less than the capacity of the milk carton.

Endpoint: the beginning or end of an object



Fewer than: when comparing two groups and one group does not have as many objects as the other group



Less than: when comparing two numbers and one number is smaller than the other number

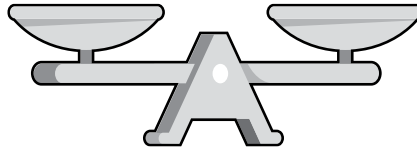
2 is less than 5

Models

Dot Path



Balance scale



Grado K Módulo 3

Consejos Para Las Familias

Resumen De Los Conceptos Clave

Foco TEKS: K.2E, K.2G, K.2H, K.7A, K.7B, K.8A, K.8B, K.8C

En el Módulo 3, los estudiantes comparan y analizan los atributos medibles de los objetos, incluida la longitud, el peso y la capacidad. El concepto de hacer comparaciones se explora más a fondo a medida que los estudiantes aprenden a comparar números y conjuntos de objetos. Su estudiante:

- ☐ **Comparará** dos objetos uno al lado del otro y utilizará una unidad de medida, como un palo de cubos de enlace o un pedazo de cuerda, para comparar las **longitudes** y las **alturas** de los objetos.
- ☐ Aprenderá a alinear los **puntos finales** de los objetos antes de compararlos.
- ☐ Usará un lenguaje tal como **más largo que**, **más alto que**, **más corto que** y **lo mismo** que para comparar las longitudes y las alturas de los objetos.
- ☐ Comparará los **pesos** de los objetos basándose simplemente en el tacto y también utilizando una **balanza**.
- ☐ Usará un lenguaje como **más pesado que**, **más ligero que** y **lo mismo que**, para comparar los pesos de los objetos.
- ☐ Comparará la **capacidad** de los contenedores vertiendo y usará un lenguaje tal como **más que**, **menos que** y **lo mismo que**.
- ☐ Comparará conjuntos de objetos para determinar si hay **suficiente** en un contexto del mundo real y usará **más que** y **menos que** para describir situaciones en las que no hay suficiente de algo.
- ☐ Contará para comparar dos conjuntos de objetos, indicando cuál número es **más que** y cuál número es **menos que** comparándolo con el otro número.
- ☐ Formará grupos de objetos que tengan 1 más, 1 menos o el mismo número que un conjunto dado.

Puede usar la lista anterior para supervisar el progreso de su estudiante en cuanto a los conocimientos y habilidades de este módulo. En las páginas de Homework Helpers de Succeed, Student Edition encontrará ejemplos de problemas diarios con soluciones y burbujas de pensamiento para ayudarlo a apoyar a su estudiante mientras trabaja en casa.

Formas Adicionales De Ayudar En Casa

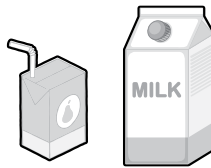
- Juegue a Veo, veo... con artículos para el hogar, dando pistas relacionadas con sus longitudes (más largas/más cortas) y alturas (más altas/más cortas). Por ejemplo, diga: "Veo algo más largo que una goma de borrar". Anime a su estudiante a hacer preguntas (por ejemplo, "¿Es una taza?" "¿Es una cuchara?") hasta que identifique correctamente el objeto que usted eligió.
- Pídale a su estudiante que cuente y compare sus propios objetos. "¿Tienes más autos de juguete o más figuras de acción? ¿Más rompecabezas o más muñecas?"



- Pídale a su estudiante que compare los pesos de dos objetos colocando uno en cada mano y viendo cuál mano baja más o se siente más pesada.
- Ayude a su estudiante a comparar la capacidad de dos contenedores domésticos. Invite a su estudiante a verter líquido, arroz o arena del Contenedor A en el Contenedor B. Pídale a su estudiante que diga si el Contenedor A contiene más, menos o la misma cantidad que el Contenedor B.
- Use naipes para comparar números. Retire las jotas, reinas, reyes, ases y comodines. Luego coloque el mazo boca abajo entre dos jugadores. Cada jugador debe tomar una carta. Los jugadores voltearán sus cartas al mismo tiempo y comparan sus números. El jugador con el número mayor toma ambas cartas y dice, por ejemplo, “9 es más que 6.” Los jugadores continuarán hasta que todas las cartas se hayan volteado. El jugador con más cartas, gana el juego. Jueguen de nuevo, pero esta vez el jugador con el número menor recoge ambas cartas y dice, por ejemplo, “6 es menos que 9.”

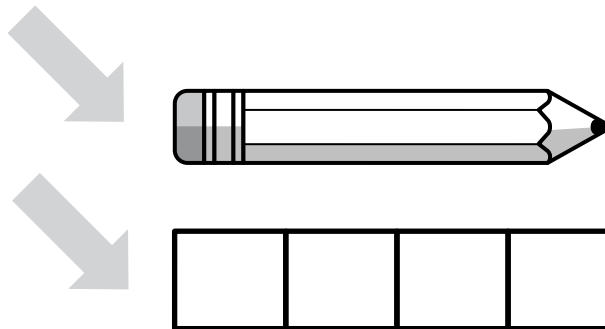
Términos

Capacidad: la cantidad de líquido que un contenedor puede contener cuando está completamente lleno



La capacidad de la caja de jugo es menor que la capacidad de la caja de leche.

Punto final: el principio o el final de un objeto



Menos que: al comparar dos grupos y un grupo no tiene tantos objetos como el otro grupo

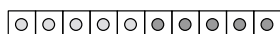


Menor que: al comparar dos números y un número es más pequeño que el otro número

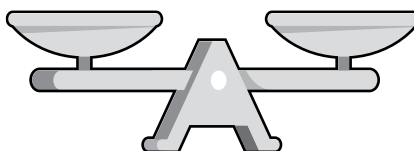
2 es menor que 5

Modelos

Camino de puntos



Balanza



Grade K Module 4

Tips for Families

Key Concepts Overview

Focus TEKS: **K.2I, K.3A, K.3B, K.3C**

In Module 4, students develop skills and strategies to begin adding and subtracting within 10. Your student will:

- ☐ Understand how to join **parts** together to make a **whole** or a total, or to separate a whole into two parts.
- ☐ Use objects, drawings, and **number bonds** to **compose** and **decompose** numbers into **number pairs**.
- ☐ Use objects to act out multiple stories with the same whole each time, discovering that they can break apart a whole in different ways (e.g., $5 = 4 + 1$, $5 = 3 + 2$, and $5 = 5 + 0$).
- ☐ Write an **addition sentence** or a **subtraction sentence** to match a number story.
- ☐ Solve number stories in which the total is unknown, and number stories in which the parts are unknown.
- ☐ Work with a number path to show the relationship between **addition** and **subtraction** when adding and then taking away the same number from a set.
- ☐ Explore the fact that adding or subtracting 0 doesn't change the original number.
- ☐ Use 5-groups to record how many more are needed to **make 10**.
- ☐ Use what they know about a part–part–whole relationship to model and teach others.

You can use the checklist above to help monitor your student's progress of the knowledge and skills in this module. Daily sample problems with solutions and thought bubbles are found in the Homework Helper pages in the Succeed Student Edition to help you support your student as they work at home.

Additional Ways to Help at Home

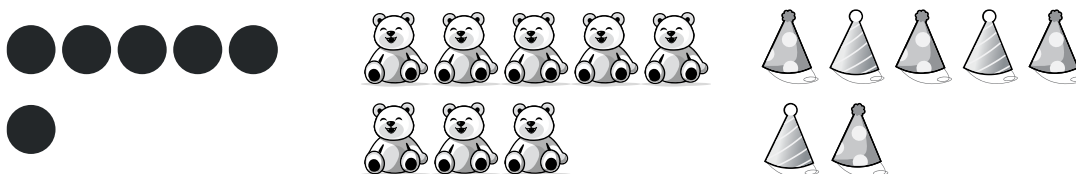
- Invite your student to gather up to 10 objects or toys and to practice telling addition and subtraction stories about them. For example, "There are 5 frogs sitting on a log. 3 frogs jump into the water. There are 2 frogs left on the log."
- Encourage your student to use small objects, such as beans or pennies, to make various number bonds for numbers 2 through 10. For example, if the whole is 4 beans, your student might break it apart into 3 beans and 1 bean. Be sure they include 0 as a part in some number bonds. Challenge your student to find all the possible number bonds for a number.
- Challenge your student to arrange and draw 7 objects in a 5-group. Draw attention to the idea that the total is 5 and some more. Encourage your student to say a sentence to match the set, for example, 7 is 5 and 2 or 5 plus 2 equals 7. Repeat with other numbers within 10.



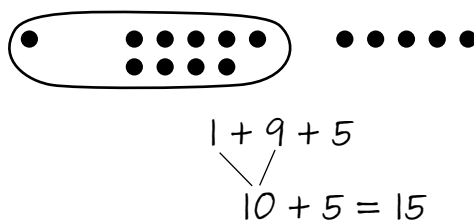
- Place up to 10 pennies in a cup. Shake the cup, and then pour the pennies out. Write an addition sentence to match the number of heads and tails. For example, when working with 6 pennies, if 1 penny lands heads up and 5 pennies land tails up, the matching addition sentence is $6 = 1 + 5$.
- Provide a situation that has a total within 10. For example, you might say, “There are 8 vehicles on the road. Some are trucks and some are cars. How many of each type of vehicle could there be?” Repeat with several different situations. Take turns with your student writing and saying the matching addition sentences.
- Invite your student to hold up 10 fingers. Ask them to tuck (put down) some fingers. Then ask, “How many are left?” Encourage your student to say or write a subtraction number sentence to match. For example, if your student tucked 3 fingers, they should say, “10 minus 3 equals 7,” or write $10 - 3 = 7$.

Terms

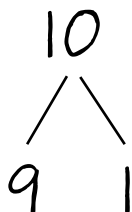
5-group (*Grupo de 5*): objects in a row of 5 and a row of some more



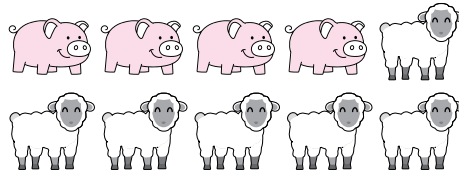
Compose (*Componer*): to join together or group



Decompose (*Decomponer*): to break into parts or separate



Make 10: to join two numbers from 1 to 9 that add to 10



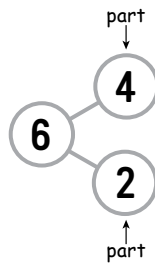
$$4 + 6 = 10$$

Number pairs or partners: two numbers that add up to the total

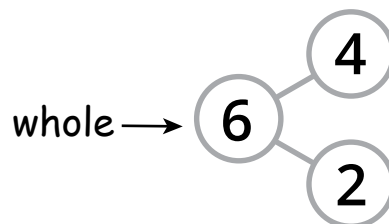


$2 + 4 = 6$
2 and 4 are partners to 6.

Part (Parte): a number that is used to make the whole, or total



Whole: how many altogether

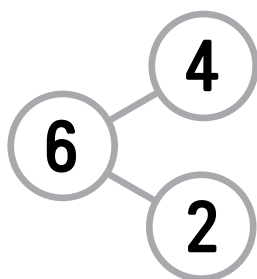


Models

$5 + n$ pattern

$5 + n$ pattern				
$6 = 5 + 1$	$7 = 5 + 2$	$8 = 5 + 3$	$9 = 5 + 4$	$10 = 5 + 5$
•••••	•••••	•••••	•••••	•••••

Number bond



Number path

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----



Grado K Módulo 4

Consejos Para Las Familias

Resumen De Los Conceptos Clave

Focus TEKS: **K.2I, K.3A, K.3B, K.3C**

En el Módulo 4, los estudiantes desarrollan competencias y estrategias para comenzar a sumar y restar hasta 10. Su estudiante:

- ☐ Entenderá cómo unir **partes** para formar un **entero** o un total, o cómo separar un todo en dos partes.
- ☐ Usará objetos, dibujos y **enlaces numéricos** para **componer** y **descomponer** números en **pares de números**.
- ☐ Usará objetos para representar varias historias con el mismo entero cada vez, descubriendo que pueden descomponer un entero de diferentes maneras (p. ej., $5 = 4 + 1$, $5 = 3 + 2$ y $5 = 5 + 0$).
- ☐ Escribirá una **oración de suma** o una **oración de resta** para que coincida con la historia numérica.
- ☐ Resolverá historias numéricas donde el total es desconocido y donde las partes son desconocidas.
- ☐ Trabajarán con una línea numérica para mostrar la relación entre la **suma** y la **resta** sumando y restando el mismo número de un conjunto.
- ☐ Explorará el hecho de que sumar o restar 0 no cambia el número original.
- ☐ Usará 5 grupos para registrar cuántos más se necesitan para **hacer 10**.
- ☐ Usará lo que saben sobre una relación de parte-parte-entero para modelar y enseñar a otros.

Puede usar la lista anterior para supervisar el progreso de su estudiante en cuanto a los conocimientos y habilidades de este módulo. En las páginas de Homework Helpers de Succeed, Student Edition encontrará ejemplos de problemas diarios con soluciones y burbujas de pensamiento para ayudarlo a apoyar a su estudiante mientras trabaja en casa.

Formas Adicionales De Ayudar En Casa

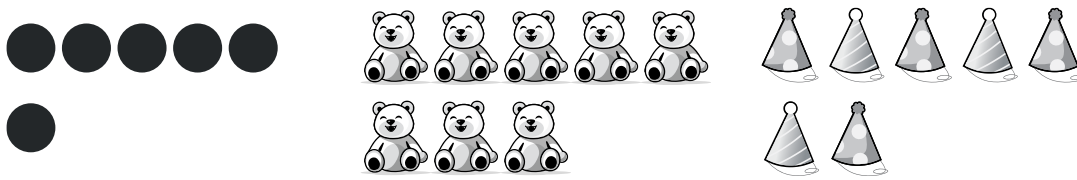
- Invite a su estudiante a recopilar hasta 10 objetos o juguetes y a practicar problemas de suma y resta sobre ellos. Por ejemplo, “Hay 5 ranas sentadas en un tronco. 3 ranas saltan al agua. Quedan 2 ranas en el tronco”.
- Anime a su estudiante a usar objetos pequeños, como frijoles o centavos, para hacer varios enlaces numéricos para los números del 2 al 10. Por ejemplo, si el entero es de 4 frijoles, su estudiante podría separarlo en 3 frijoles y 1 frijol. Asegúrese de que incluyan 0 como parte en algunos enlaces numéricos. Desafíe a su estudiante a encontrar todos los enlaces numéricos posibles para un número.
- Desafíe a su estudiante a organizar y dibujar 7 objetos en un grupo de 5. Llame la atención sobre la idea de que el total es 5 y algo más. Anime a su estudiante a decir una oración que coincida con el conjunto, por ejemplo, 7 es 5 y 2 o 5 más 2 es igual a 7. Repita con otros números hasta 10.



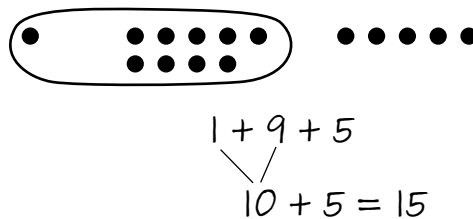
- Coloque hasta 10 centavos en una taza. Agite la taza y luego vierta los centavos. Escriba una oración de suma para que coincida con el número de caras y cruces. Por ejemplo, cuando trabaja con 6 centavos, si 1 centavo cae con la cara hacia arriba y 5 centavos caen con la cruz hacia arriba, la oración de suma que coincide es $6 = 1 + 5$.
- Dé una situación que tenga un total dentro de 10. Por ejemplo, podría decir: "Hay 8 vehículos en la carretera. Algunos son camiones y otros son autos. ¿Cuántos podría haber de cada tipo de vehículo?". Repita con varias situaciones diferentes. Tome turnos con su estudiante para escribir y decir las oraciones de suma que coinciden.
- Invite a su estudiante a levantar 10 dedos. Pídale que metan (bajen) algunos dedos. Luego pregunte: "¿Cuántos quedan?". Anime a su estudiante a decir o escribir una oración numérica de resta para que coincida. Por ejemplo, si su estudiante metió 3 dedos, debería decir: "10 menos 3 es igual a 7", o escribir $10 - 3 = 7$.

Términos

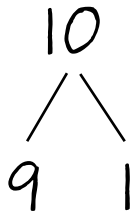
Grupo de 5: objetos en una fila de 5 y una fila de algunos más



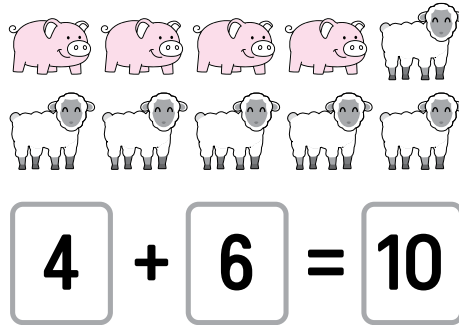
Componer: unir o agrupar



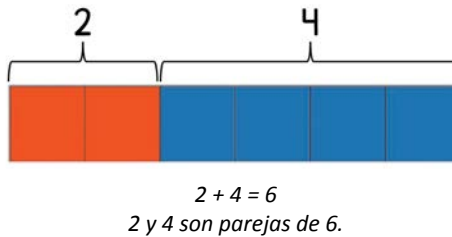
Descomponer: romper en partes o separar



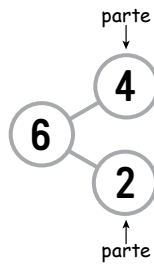
Hacer 10: para unir dos números del 1 al 9 que suman 10



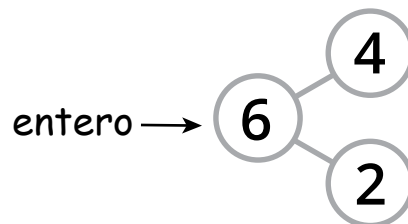
Pares o parejas de números: dos números que suman el total



Parte: un número que se usa para hacer el entero o total



Entero: cuántos hay en total

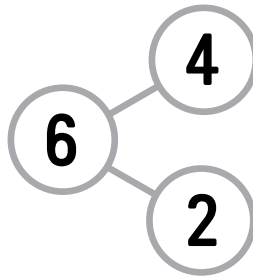


Modelos

patrón $5 + n$

Patrón $5 + n$				
$6 = 5 + 1$	$7 = 5 + 2$	$8 = 5 + 3$	$9 = 5 + 4$	$10 = 5 + 5$
•••••	•••••	•••••	•••••	•••••

Enlace numérico



Línea numérica

1	2	3	4	5	6	7	8	9	10
---	---	---	---	---	---	---	---	---	----



Grade K Module 5

Tips for Families

Key Concepts Overview

Focus TEKS: **K.2A, K.2B, K.2C, K.2D, K.2E, K.2F, K.2G, K.2H, K.4A, K.5A, K.9A, K.9B, K.9C, K.9D**

In Module 5, students develop an understanding of **teen numbers** as **10 ones and some ones**. They extend that understanding to count to 100. Students also investigate concepts about money, including how it is **earned**, saved, and spent. Your student will:

- ☐ Use objects to count within 20 and model teen numbers as 10 ones and some ones.
- ☐ Use number bonds and **place value cards** to model and write numbers 10 to 20.
- ☐ Make a 20-bead Rekenrek and use it to model numbers and count up and down within 20.
- ☐ Count up to 20 objects and answer *how many* questions.
- ☐ Count by tens the **regular way** and the **Say Ten way** (ten 1, ten 2, ten 3, ten 4 ...) within 100 to recognize the repetition of the number sequence 1–9.
- ☐ Explore the connection among work, **income**, and the ability to buy items that are **wanted** or **needed**.

You can use the checklist above to help monitor your student’s progress of the knowledge and skills in this module. Daily sample problems with solutions and thought bubbles are found in the Homework Helper pages in the Succeed Student Edition to help you support your student as they work at home.

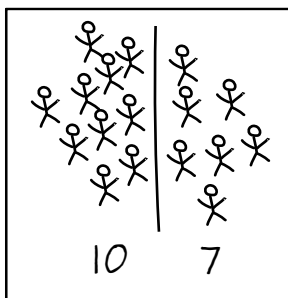
Additional Ways to Help at Home

- Play Name the Coin with your student. Gather one of each coin (penny, nickel, dime, and quarter) and place them in a container. Pull out a coin and ask your student to name the coin. Repeat with the remaining coins.
- Say or write a teen number. Encourage your student to draw objects to match the given number and then circle 10 of the objects to show the *10 ones and some ones* strategy.
- Invite your student to practice counting the Say Ten way. Say a teen number (11–19) and ask your student to say the number the Say Ten way. For example, you say 16 and your student says ten 6.
- Go on a nature walk with your student to find a collection of items to count. For example, you might count a set of 20 leaves or rocks the Say Ten way (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, ten 1, ten 2, ten 3, ...).
- Invite your student to gather 20 small objects (e.g., pennies, beans). Say a teen number the Say Ten way (ten 2) and the regular way (12). Encourage your student to show that number of objects by grouping their objects into 10 ones and some more ones (10 and 2).



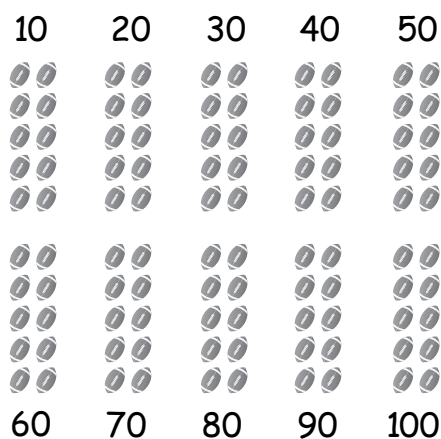
Terms

10 ones and some ones: a group of 10 ones and a group of some more ones; used to show numbers 11 through 19

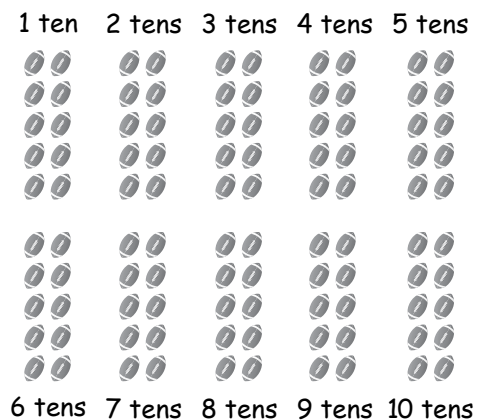


We can show the number 17 using 10 ones and 7 ones.

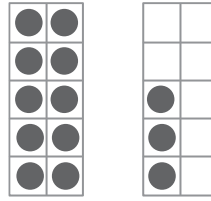
Regular counting by tens to 100: counting objects or numerals up to 100 that are grouped by tens



Say Ten counting by tens to 100: counting objects or numerals up to 100 that are grouped by tens and saying the number of tens



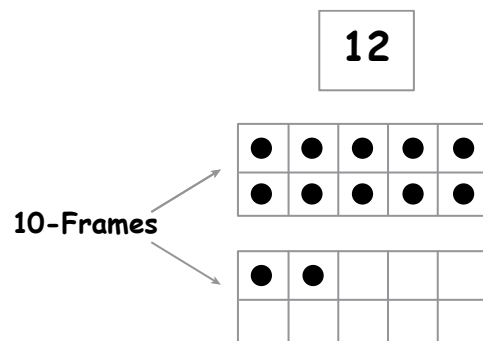
Teen numbers: numbers that contain 10 ones and some more ones and are numerals that are between 11 and 19



$$\begin{array}{r} 10 \quad 3 \\ \swarrow \searrow \\ 13 \end{array}$$

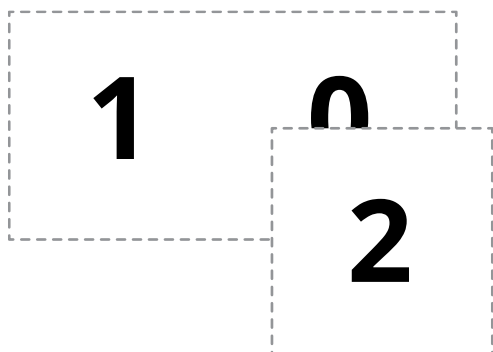
Models

10-frame

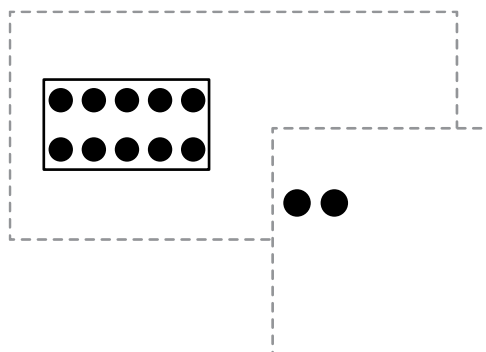


Coins

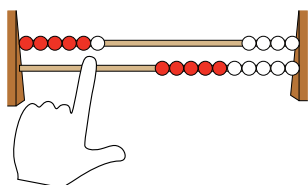


Place value cards

Place value cards (front)



Place value cards (back)

Rekenrek

Grado K Módulo 5

Consejos Para Las Familias

Resumen De Los Conceptos Clave

Foco TEKS: K.2A, K.2B, K.2C, K.2D, K.2E, K.2F, K.2G, K.2H, K.4A, K.5A, K.9A, K.9B, K.9C, K.9D

En el Módulo 5, los estudiantes desarrollan una comprensión de los **números de la primer decena** tal como **del 11 al 19 y algunos más**. Amplían esta comprensión para poder contar hasta 100. Los estudiantes también investigan conceptos sobre el dinero, incluida la forma en que se **gana**, se ahorra y se gasta. Su estudiante:

- ☐ Usará objetos para contar hasta 20 y trabajará con los números de las decenas del 10 y algunos más.
- ☐ Utilizará los enlaces numéricos y las tarjetas **place value cards** para modelar y escribir los números del 10 al 20.
- ☐ Hará Rekenrek de 20 cuentas y lo usará para modelar números y contar hacia arriba y hacia abajo dentro de la decena del 20.
- ☐ Contará hasta 20 objetos y responderá preguntas acerca de *cuántos*.
- ☐ Contará de diez en diez de la **forma habitual** y de la manera **Decir Diez ("Say Ten")** (diez 1, diez 2, diez 3, diez 4...) dentro de 100 para reconocer la repetición de la secuencia numérica del 1 al 9.
- ☐ Explorará la conexión entre el trabajo, **los ingresos** y la capacidad de comprar artículos que se **desean** o **que se necesitan**.

Puede usar la lista anterior para supervisar el progreso de su estudiante en cuanto a los conocimientos y habilidades de este módulo. En las páginas de Homework Helpers de Succeed, Student Edition encontrará ejemplos de problemas diarios con soluciones y burbujas de pensamiento para ayudarlo a apoyar a su estudiante mientras trabaja en casa.

Formas Adicionales De Ayudar En Casa

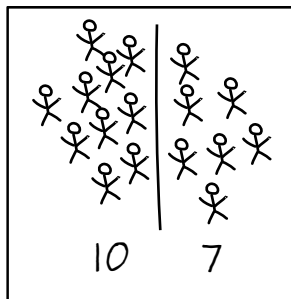
- Juegue a "Nombrar la moneda" ("Name the Coin") con su estudiante. Reúna una de cada moneda (monedas de centavo, de 5 centavos, de 10 centavos y de 25 centavos) y colóquelas en un recipiente. Saque una moneda y pídale a su estudiante que la nombre. Repita lo mismo con las monedas restantes.
- Diga o escriba un número de las decenas. Anime a su estudiante a dibujar objetos para que coincidan con el número dado y luego encierre en un círculo 10 de los objetos para mostrar la estrategia de *10 más algunos números*.
- Invite a su estudiante a practicar el conteo de la manera de Decir Diez. Diga un número ordinal (11–19) y pídale a su estudiante que diga el número a la manera de Decir Diez ("Say Ten"). Por ejemplo, diga 16 y su estudiante dice diez 6.
- Realice una caminata por la naturaleza con su estudiante para encontrar una colección de objetos para contar. Por ejemplo, puede contar un conjunto de 20 hojas o rocas a la manera de Decir Diez ("Say Ten") (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, diez 1, diez 2, diez 3,...).



- Invite a su estudiante a reunir 20 objetos pequeños (por ejemplo, monedas de un centavo, frijoles). Diga un número ordinal (“teen number”) de la manera de Decir Diez (“Say Ten”) (diez y 2) y a la manera regular (12). Anime a su estudiante a mostrar ese número de objetos agrupando sus objetos en 10 y algunos 10 más algo (10 y 2).

Términos

10 más algunos: un grupo de 10 unidades y un grupo de algunos más; se usa para mostrar números 11 al 19

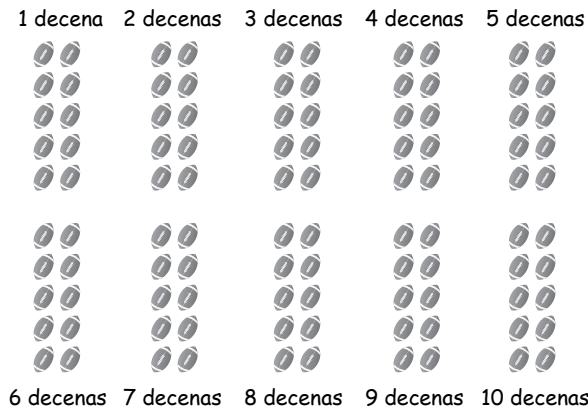


Podemos mostrar el número 17 usando 10 unidades y 7 unidades.

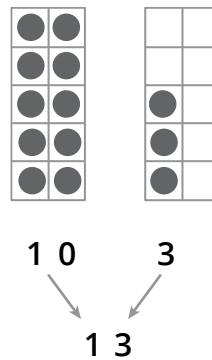
Contar regularmente de decenas a 100: contar objetos o números hasta 100 que son objetos agrupados o números hasta 100 que están agrupados en decenas

10	20	30	40	50
60	70	80	90	100

Contar a la manera de Decir Diez de decenas a 100: contar decenas y decir el número de decenas

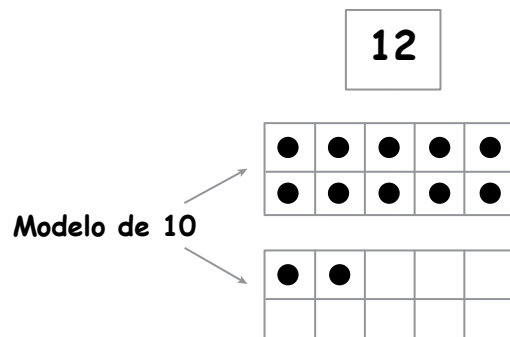


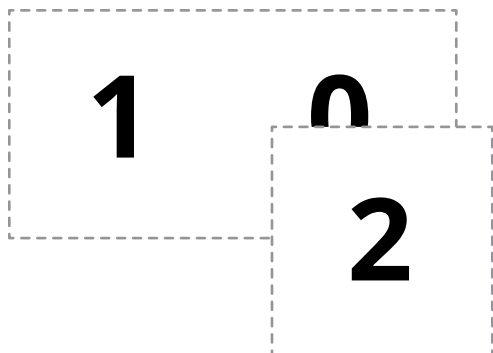
Números ordinales (“teen numbers”): números que contienen 10 unidades y algunas unidades más y son números que están entre 11 y 19



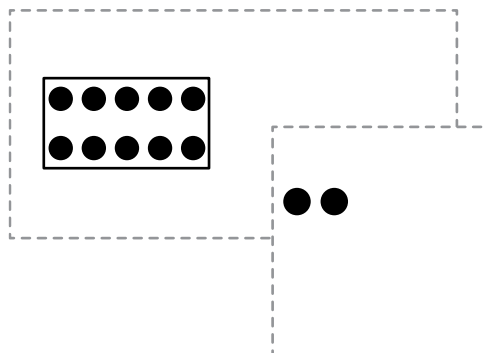
Modelos

modelo de 10

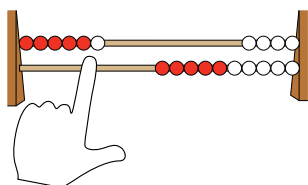


Monedas**Ocultar tarjetas place value cards**

Place value cards (front)



Place value cards (back)

Rekenrek

Grade K Module 6

Tips for Families

Key Concepts Overview

Focus TEKS: **K.6C, K.6D, K.6F**

In Module 6, students name and sort two- and three-dimensional shapes. They apply what they know about the common features of shapes to build flat, two-dimensional shapes, and they use ordinal numbers (first, second, third) to describe the construction of the shapes. The school year closes with having students celebrate their learning by participating in a Math Olympics.

Your student will:

- ☐ Build flat shapes using sticks to represent the sides of the shape and balls of clay to represent the vertices.
- ☐ Use ordinal numbers to describe the steps for building each shape (e.g., “First, I cut the sticks. Second, I picked 3 sticks for the sides. Third, I stuck them together with clay!”).
- ☐ Compose flat shapes with varying side lengths.
- ☐ Draw to record shape compositions.
- ☐ Engage in tasks related to numbers, measurement, operations, and geometry to celebrate learning from the whole year.

You can use the checklist above to help monitor your student’s progress of the knowledge and skills in this module. Daily sample problems with solutions and thought bubbles are found in the Homework Helper pages in the Succeed Student Edition to help you support your student as they work at home.

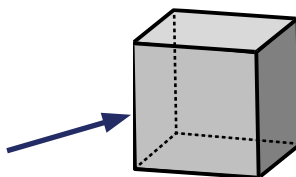
Additional Ways to Help at Home

- Invite your student to follow a set of instructions using the words *first*, *second*, and *third*. For example, you might say, “First, stand up. Second, clap your hands. Third, stomp your feet.”
- Send your student on a scavenger hunt for solid, or three-dimensional, shapes around the house. Ask your student to prove her choice by describing its characteristics. For example, “This ball is a sphere because it is round and can roll! It doesn’t have any faces or edges.”
- Invite your student to gather 10 small toys or other objects and encourage him to arrange them in a line. Using ordinal numbers, ask him the location of each object in the line. For example, you might ask, “Which object is second?”
- Invite your student to complete a puzzle with you.
- Encourage your student to draw shapes (e.g., circles or triangles) or find examples of two- and three-dimensional objects (paper, an orange, a tissue box).

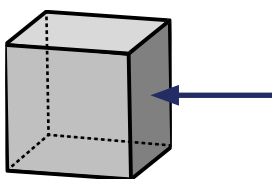


Terms

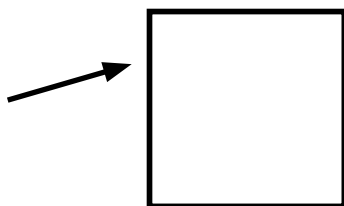
Edge: the place where 2 faces meet



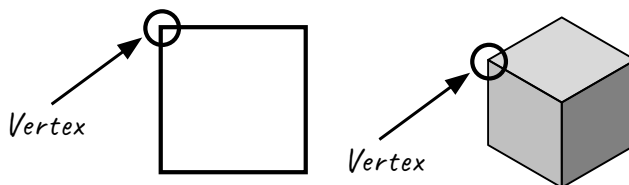
Face: a flat side of a solid shape



Side: the line that connects two vertices of a flat shape



Vertex (*Vértice*): a point where the sides meet in a two-dimensional shape and the point where the edges meet in a three-dimensional shape; *vertices* is the plural form of vertex

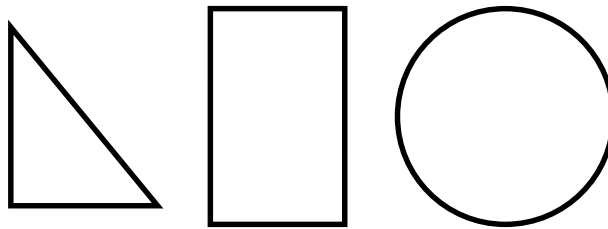


Models

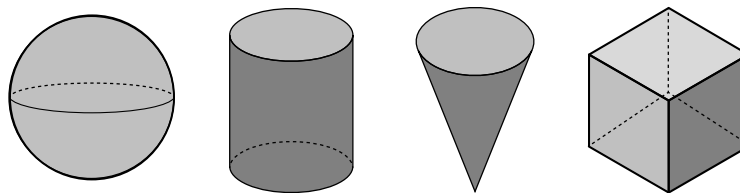
Clay and sticks



Two-dimensional shapes



Three-dimensional shapes



Grado K Módulo 6

Consejos Para Las Familias

Resumen De Los Conceptos Clave

Foco TEKS: **K.6C, K.6D, K.6F**

En el Módulo 6, los estudiantes nombran y ordenan formas bidimensionales y tridimensionales. Aplican lo que saben sobre las características comunes de las formas para construir formas planas y bidimensionales, y usan números ordinales (primero, segundo, tercero) para describir la construcción de las formas. El año escolar cierra con los estudiantes celebrando su aprendizaje participando en unas Olimpiadas de Matemáticas.

Su estudiante:

- ☐ Construirá formas planas usando palos para representar los lados de la forma y bolas de arcilla para representar los vértices.
- ☐ Usará números ordinales para describir los pasos para construir cada forma (p. ej., “Primero, corto los palos. Segundo, elijo 3 palos para los lados. Tercero, ¡los pego con arcilla!”).
- ☐ Compondrá formas planas con diferentes longitudes de lado.
- ☐ Dibujará para registrar composiciones de formas.
- ☐ Participará en tareas relacionadas con los números, la medición, las operaciones y la geometría para celebrar el aprendizaje de todo el año.

Puede usar la lista anterior para supervisar el progreso de su estudiante en cuanto a los conocimientos y habilidades de este módulo. En las páginas de Homework Helpers de Succeed, Student Edition encontrará ejemplos de problemas diarios con soluciones y burbujas de pensamiento para ayudarlo a apoyar a su estudiante mientras trabaja en casa.

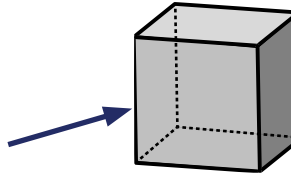
Formas Adicionales De Ayudar En Casa

- Invite a su estudiante a seguir un conjunto de instrucciones usando las palabras *primero*, *segundo* y *tercero*. Por ejemplo, podría decir: “Primero, párense. Segundo, aplaudan. Tercero, pisen fuerte”.
- Envíe a su estudiante a una búsqueda del tesoro para encontrar formas sólidas o tridimensionales alrededor de la casa. Pídale a su estudiante que demuestre su elección describiendo sus características. Por ejemplo, “¡Esta pelota es una esfera porque es redonda y puede rodar! No tiene caras ni bordes”.
- Invite a su estudiante a recopilar 10 juguetes pequeños u otros objetos y anímelo a organizarlos en una fila. Usando números ordinales, pregúntele la ubicación de cada objeto en la línea. Por ejemplo, podría preguntar: “¿Qué objeto es el segundo?”.
- Invite a su estudiante a completar un rompecabezas con usted.
- Anime a su estudiante a dibujar formas (p. ej., círculos o triángulos) o encuentre ejemplos de objetos bidimensionales y tridimensionales (papel, una naranja, una caja de pañuelos).

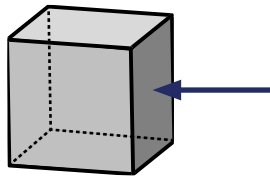


Términos

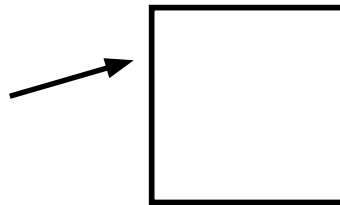
Borde: el lugar donde se encuentran 2 caras



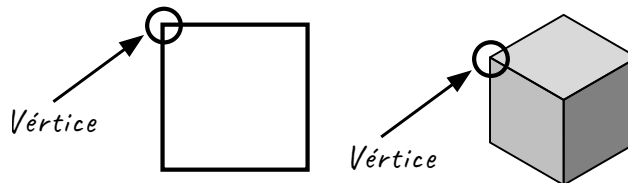
Cara: un lado plano de forma sólida



Lado: la línea que conecta dos vértices de una forma plana



Vértice: un punto donde los lados se encuentran en una forma bidimensional y el punto donde los bordes se encuentran en una forma tridimensional; *vértices* es la forma plural de *vértice*

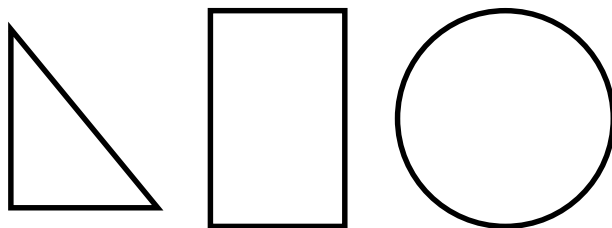


Modelos

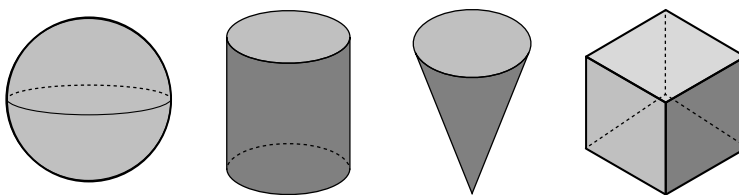
Arcilla y palos



Formas bidimensionales



Formas tridimensionales



Bibliography

- Cohen, Geoffrey L., Claude M. Steele, and Lee D. Ross. "The Mentor's Dilemma: Providing Critical Feedback Across the Racial Divide." *Personality and Social Psychology Bulletin* 25, no. 10 (October 1, 1999): 1302–18. <https://doi.org/10.1177/0146167299258011>.
- Murphy, Mary C. *Cultures of Growth: How the New Science of Mindset Can Transform Individuals, Teams and Organizations*. New York: Simon & Schuster, 2024.
- Ruck, Martin D., Rona Abramovitch, and Daniel P. Keating. "Children's and Adolescents' Understanding of Rights: Balancing Nurturance and Self-Determination." *Child Development* 69, no. 2 (April 1998): 404–17. <https://doi.org/10.2307/1132174>.
- University of Texas at Austin. "FUSE: Fellowship Using the Science of Engagement." Texas Behavioral Science & Policy Institute. Accessed April 16 2024. <https://fuse.prc.utexas.edu/>.
- Vansteenkiste, Maarten, Willy Lens, and Edward L. Deci. "Intrinsic Versus Extrinsic Goal Contents in Self-Determination Theory: Another Look at the Quality of Academic Motivation." *Educational Psychologist* 41, no. 1 (2006): 19–31. https://doi.org/10.1207/s15326985ep4101_4.
- Yeager, David S. *10 to 25: The Science of Motivating Young People*. New York: Avid Reader Press, 2024.
- Yeager, David Scott, Valerie Purdie-Vaughns, Julio Garcia, Nancy Apfel, Patti Brzustoski, Allison Master, William T. HSSERT, Matthew E. Williams, and Geoffrey L. Cohen. "Breaking the Cycle of Mistrust: Wise Interventions to Provide Critical Feedback Across the Racial Divide." *Journal of Experimental Psychology: General* 143, no. 2 (2014): 804–24. <https://doi.org/10.1037/a0033906>.



ISBN 979-8-89072-366-6

Copyright © 2024 Texas Education Agency. This work based on or adapted from materials contained in Great Minds' Eureka Math® K–5 PDF Files.

These materials are made available by the Texas Education Agency under an open license. For information about the license and your rights to use the materials, visit: <https://tea.texas.gov/K-5Math>

Printed in the USA



**Bluebonnet
Learning**

K-5 Math

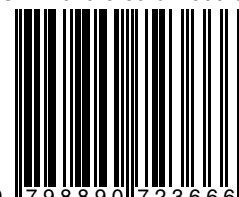
EDITION 1

ENGLISH

GK

COURSE GUIDE | TEACHER EDITION

ISBN 979-8-89-072366-6



9 798890 723666