



Reveal Math KINDERGARTEN Curriculum Guide

[Reveal Math K-5](#) is our elementary core math program. Reveal Math develops problem solvers by incorporating both inquiry-focused and teacher-guided instructional strategies within each lesson. The [Standards Driven](#) program breaks down the standards into a coherent scope and sequence that emphasizes and reinforces each grade level's major content areas to develop a strong foundation as students progress towards algebra. *Reveal Math* addresses the mathematical practices and processes within its instructional design and defines and models the math practices for students.

Reveal Math supports a positive classroom environment, explores mathematics through a flexible lesson design, and tailors classroom activities to student needs. These guiding principles allow students to take ownership of their mathematical journey.

[Redbird Mathematics](#) is our personalized learning program that features the latest in adaptive instruction, gamification, and digital project-based learning and is designed to meet the requirements of state math standards. The individualized, self-paced program integrates conceptual understanding, procedural skill and fluency, and applications into the learning experience. All K-5 students have access to Redbird through ClassLink.

Teachers also incorporate lessons and hands-on experiences using [Math In Practice](#). Math In Practice provides additional materials to guide students into deeper math understanding, focuses on developing deep content knowledge, and supports the big ideas of math content and best-practice teaching.

Reveal Math Kindergarten

UNIT 1

Math is...		Standards	Key Concepts & Learning Objectives
1-1	Math is Mine		Describe ways they use math in their lives and their world See mathematics in the real world Know the steps to take to solve a problem
1-2	Math is Exploring and Thinking		Describe patterns
1-3	Math is in My World		
1-4	Math is Explaining and Sharing		
1-5	Math is Finding Patterns		
1-6	Math is Ours		

UNIT 2

Numbers to 5		Standards	Key Concepts & Learning Objectives
2-1	Count 1,2, and 3	K.CC.4, K.CC.5b	Count objects to 10 Identify 0
2-2	Represent 1, 2, and 3	K.CC.4	Explain how to identify the number that is one more Tell whether groups are equal Compare two groups of objects or numbers
2-3	Count 4 and 5	K.CC.4, K.CC.5b	Understand the relationship between numbers and quantities Count objects, saying the number names in the standard order
2-4	Represent 4 and 5	K.CC.4	Pair each object counted with one and only one number name and vice versa Understand that each successive number name represents one more
2-5	Represent 0	K.CC.3, K.CC.4	Understand that the number of objects in a given group is the same regardless of their arrangement
2-6	Numbers to 5	K.CC.4	
2-7	Equal Groups to 5	K.CC.6	
2-8	Greater Than and Less Than	K.CC.6	
2-9	Compare Numbers to 5	K.CC.6, K.CC.7	

UNIT 3

Numbers to 10		Standards	Key Concepts & Learning Objectives
3-1	Count 6 and 7	K.CC.4, K.CC.5b	Count objects to 10 Show numbers 1-10
3-2	Represent 6 and 7	K.CC.4	Write numbers to show how many Understand the relationship between numbers and quantities
3-3	Count 8 and 9	K.CC.4	Connect counting to cardinality
3-4	Represent 8 and 9	K.CC.4	Count objects, saying the number names in the standard order Pair each object counted with one and only one number name and vice versa
3-5	Count 10	K.CC.4	Understand that each successive number name represents one more
3-6	Represent 10	K.CC.4	Count to know how many objects in a group of up to 10 objects in a scattered formation
3-7	Numbers to 10	K.CC.4	Compare the number of objects in two groups using matching or counting Compare two numbers between 1 and 10
3-8	Compare Objects in Groups	K.CC.6	
3-9	Compare Numbers	K.CC.7	
3-10	Write Numbers to 3	K.CC.3, K.CC.4, K.CC.5b	
3-11	Write Numbers to 6	K.CC.3, K.CC.4	
3-12	Write Numbers to 10	K.CC.3, K.CC.4	

UNIT 4

Sort, Classify, and Count Objects		Standards	Key Concepts & Learning Objectives
4-1	Alike and Different	K.MD.3	Sort and describe objects by attribute. Classify objects into given categories
4-2	Sort Objects into Groups	K.MD.3	Count the number of objects in each category
4-3	Count Objects in Groups	K.MD.3	
4-4	Describe Groups of Objects	K.MD.3	

UNIT 5

2-Dimensional Shapes		Standards	Key Concepts & Learning Objectives
5-1	Triangles	K.G.2	Name and describe 2-dimensional shapes Describe the relative position of 2-dimensional and 3-dimensional shapes
5-2	Squares and Rectangles	K.G.2	
5-3	Hexagons	K.G.2	
5-4	Circles	K.G.2	
5-5	Position of 2-Dimensional Shapes	K.G.1	

UNIT 6

Understand Addition		Standards	Key Concepts & Learning Objectives
6-1	Represent and Solve <i>Add to</i> Problems	K.OA.1	Represent and solve addition problems within 10
6-2	Represent and Solve More <i>Add to</i> Problems	K.OA.2, K.OA.2b	Represent addition using a range of models
6-3	Represent and Solve <i>Put Together</i> Problems	K.OA.1	Add within 10 using objects and drawings
6-4	Represent and Solve Additional Problems	K.OA.2, K.OA.2b	Make a 10 using objects and drawings
6-5	Represent and Solve More Addition Problems	K.OA.1	Fluently add within 5

UNIT 7

Understand Subtraction		Standards	Key Concepts & Learning Objectives
7-1	Represent <i>Take Apart</i> Problems	K.OA.1	Represent and solve addition and subtraction problems
7-2	Represent and Solve <i>Take From</i> Problems	K.OA.1	Represent subtraction using a range of models
7-3	Represent and Solve More <i>Take From</i> Problems	K.OA.1	Subtract within 10 using objects and drawings
7-4	Represent and Solve Subtraction Problems	K.OA.1, K.OA.2, K.OA.2b	Solve subtraction problems within 10
7-5	Represent and Solve Addition and Subtraction Problems	K.OA.1, K.OA.2, K.OA.2b	Decompose numbers up to 10 in multiple ways
			Fluently subtract within 5

UNIT 8

Addition and Subtraction Strategies		Standards	Key Concepts & Learning Objectives
8-1	Add within 5	K.OA.5, K.MD.4	Solve addition and subtraction equations within 5 fluently
8-2	Subtract within 5	K.OA.5, K.MD.4	Compose and decompose numbers to 10 in different ways
8-3	Ways to Make 6 and 7	K.OA.1, K.MD.4	
8-4	Ways to Decompose 6 and 7	K.OA.3	
8-5	Ways to Make 8 and 9	K.OA.1	
8-6	Ways to Decompose 8 and 9	K.OA.3	
8-7	Ways to Make 10	K.OA.4	
8-8	Ways to Decompose 10	K.OA.3	

UNIT 9

Numbers 11 to 15		Standards	Key Concepts & Learning Objectives
9-1	Represent 11, 12, and 13	K.CC.3, K.CC.4	Represent numbers 11-15
9-2	Make 11, 12, and 13	K.CC.5b, K.NBT.1	Make groups of 11-15 Decompose groups of 11-15
9-3	Decompose 11, 12, and 13	K.NBT.1	Write numbers from 0 to 15
9-4	Represent 14 and 15	K.CC.3, K.CC.4	Represent up to 15 objects with a written numeral
9-5	Make 14 and 15	K.CC.5b, K.NBT.1	Count to know how many objects in a group of up to 15 objects in a line, rectangular array, or circle
9-6	Decompose 14 and 15	K.NBT.1	Given a number up to 15, count out that many objects

UNIT 10

Numbers 16 to 19		Standards	Key Concepts & Learning Objectives
10-1	Represent 16 and 17	K.CC.3, K.CC.4, K.CC.5b	Represent numbers 11-19 Make groups of 11-19
10-2	Make 16 and 17	K.CC.5b, K.NBT.1	Decompose groups of 11-19 Represent up to 20 objects with a written numeral
10-3	Decompose 16 and 17	K.NBT.1	Count to know how many objects in a group of up to 20 objects in a line, rectangular array, or circle
10-4	Represent 18 and 19	K.CC.3, K.CC.4	Given a number up to 20, count out that many objects Compose numbers from 11 to 19
10-5	Make 18 and 19	K.CC.5b, K.NBT.1	Decompose numbers from 11 to 19
10-6	Decompose 18 and 19	K.NBT.1	Understand that teen numbers are composed of ten ones and some more ones

UNIT 11

3-Dimensional Shapes		Standards	Key Concepts & Learning Objectives
11-1	2-Dimensional and 3-Dimensional Shapes	K.G.3	Describe the relative position of 2-dimensional and 3-dimensional shapes
11-2	Cubes	K.G.2	Name and describe 3-dimensional shapes
11-3	Spheres	K.G.2	Describe shapes in the environment
11-4	Cylinders	K.G.2	Recognize and name shapes with different sizes and orientations
11-5	Cones	K.G.2	Understand that 2-dimensional figures are flat
11-6	Describe 3-Dimensional Shapes	K.G.1	Understand that 3-dimensionals figures are solid

UNIT 12

Count to 100		Standards	Key Concepts & Learning Objectives
12-1	Count by 1s to 50	K.CC.1	Count by 1s and 10s to 100 Describe patterns when counting by 1s and 10s to 100
12-2	Count by 1s to 100	K.CC.1	Count by 1s to 100, starting at any number
12-3	Count by 10s to 100	K.CC.1, K.OA.6	Count to 10 by ones
12-4	Count From Any Number to 100	K.CC.2	Count forward from a given number
12-5	Count to Find Out How Many	K.CC.5a	Given a number up to 20, count out that many objects

UNIT 13

Analyze, Compare, and Compose Shapes		Standards	Key Concepts & Learning Objectives
13-1	Compare and Contrast 2-Dimensional Shapes	K.G.4	Compare and contrast 2-dimensional and 3-dimensional shapes Draw and build 2-dimensional and 3-dimensional shapes
13-2	Build and Draw 2-Dimensional Shapes	K.G.5	Analyze and compare 2-dimensional and 3-dimensional figures Build and draw shapes that can be found in the world
13-3	Compose 2-Dimensional Shapes	K.G.6	Compose simple shapes to form other shapes
13-4	Compare and Contrast 3-Dimensional Shapes	K.G.4	
13-5	Build 3-Dimensional Shapes	K.G.5	
13-6	Describe 3-Dimensional Shapes in the World	K.G.3	

UNIT 14

Compare Measurable Attributes		Standards	Key Concepts & Learning Objectives
14-1	Describe Attributes of Objects	K.MD.1	Describe and compare objects using length, height, weight, and capacity Describe measurable attributes of objects, such as length or weight Compare two objects for the same measurable attribute
14-2	Compare Lengths	K.MD.2	
14-3	Compare Heights	K.MD.2	
14-4	Compare Weights	K.MD.2	
14-5	Compare Capacity	K.MD.2	

STANDARDS

UNIT/LESSON

NY-K.CC Counting and Cardinality

Know number names and the count sequence.

1. Count to 100 by ones and by tens.	12-1, 12-2, 12-3
2. Count to 100 by ones beginning from any given number (instead of beginning at 1).	12-4
3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).	2-5, 3-10, 3-11, 3-12, 9-1, 9-4, 10-1, 10-4

Count to tell the number of objects.

<p>4. Understand the relationship between numbers and quantities up to 20; connect counting to cardinality.</p> <ul style="list-style-type: none"> a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. (1:1 correspondence) b. Understand that the last number name tells the number of objects counted, (cardinality). The number of objects is the same regardless of their arrangement or the order in which they were counted. c. Understand the concept that each successive number name refers to a quantity that is one larger. d. Understand the concept of ordinal numbers (first through tenth) to describe the relative position and magnitude of whole numbers. 	2-1, 2-2, 2-3, 2-4, 2-5, 2-6, 3-1, 3-2, 3-3, 3-4, 3-5, 3-6, 3-7, 3-10, 3-11, 3-12, 9-1, 9-4, 10-1, 10-4
5a. Answer counting questions using as many as 20 objects arranged in a line, a rectangular array, and a circle. Answer counting questions using as many as 10 objects in a scattered configuration.	12-5
5b. Given a number from 1–20, count out that many objects.	2-1, 2-3, 3-1, 3-10, 9-2, 9-5, 10-1, 10-2, 10-5

Compare numbers.

6. Identify whether the number of objects in one group is greater than (more than), less than (fewer than), or equal to (the same as) the number of objects in another group.

Note: Include groups with up to ten objects.

2-7, 2-8, 2-9, 3-8

STANDARDS

UNIT/LESSON

7. Compare two numbers between 1 and 10 presented as written numerals.

2-9, 3-9

NY-K.OA Operations and Algebraic Thinking

Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

1. Represent addition and subtraction using objects, fingers, pennies, drawings, sounds, acting out situations, verbal explanations, expressions, equations, or other strategies.

Note: Drawings need not show details, but should show the mathematics in the problem.

6-1, 6-3, 6-5, 7-1, 7-2, 7-3, 7-4, 7-5, 8-3, 8-5

2a. Add and subtract within 10.

6-2, 6-4, 7-4, 7-5

2b. Solve addition and subtraction word problems within 10.

6-2, 6-4, 7-4, 7-5

3. Decompose numbers less than or equal to 10 into pairs in more than one way.

8-4, 8-6, 8-8

4. Find the number that makes 10 when given a number from 1 to 9.

8-7

5. Fluently add and subtract within 5.

8-1, 8-2

6. Duplicate, extend, and create simple patterns using concrete objects.

1-5, 12-3

NY-K.NBT Number and Operations in Base Ten

Work with numbers 11–19 to gain foundations for place value.

1. Compose and decompose the numbers from 11 to 19 into ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

9-2, 9-3, 9-5, 9-6, 10-2,
10-3, 10-5, 10-6

NY-K.MD Measurement and Data

Describe and compare measurable attributes.

STANDARDS

UNIT/LESSON

1. Describe measurable attributes of an object(s), such as length or weight, using appropriate vocabulary.

14-1

2. Directly compare two objects with a common measurable attribute and describe the difference.

14-2, 14-3, 14-4, 14-5

Classify objects and count the number of objects in each category

3. Classify objects into given categories; count the objects in each category and sort the categories by count.

Note: Limit category counts to be less than or equal to 10

4-1, 4-2, 4-3, 4-4

4. Explore coins (pennies, nickels, dimes, and quarters) and begin identifying pennies and dimes.

See *Reveal Math* Grade
2. 8-1, 8-2, 8-3

NY-K.G Geometry

Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

1. Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.

5-5, 11-6

2. Name shapes regardless of their orientation or overall size.	5-1, 5-2, 5-3, 5-4, 11-2, 11-3, 11-4, 11-5
3. Understand the difference between two-dimensional (lying in a plane, “flat”) and three-dimensional (“solid”) shapes.	11-1, 13-6
Analyze, compare, sort, and compose shapes.	
4. Analyze, compare, and sort two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts, and other attributes.	13-1, 13-4
5. Model objects in their environment by building and/or drawing shapes.	13-2, 13-5
6. Compose larger shapes from simple shapes.	13-3