Scope and Sequence

Grades K–8

California Reveal MATH®

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Scope and Sequence

California Reveal Math is a coherent mathematics curriculum for all K–8 students. Our curriculum is built on a foundation that binds the Big Ideas, learning progressions across grades, high-quality instruction, and content relevant to students' lives. This design provides all learners with the opportunity to experience mathematics and build coherent understanding throughout their math learning journeys.

The *California Reveal Math* authors and learning scientists have created a seamless scope and sequence that structures the mathematical progressions aligned to the California Common Core State Standards: Mathematics. Every lesson in the curriculum is designed to highlight the math within the standards and connect it to the Big Ideas.

Specifically, this scope and sequence includes:

- Standards and their grade distributions.
- Concepts and skills covered in each grade.
- Year-to-year concept progression, showing coherence.
- Clusters of related concepts across grade levels.
- Specific prerequisite concepts from which skills are developed further.

This scope and sequence shows the progression of concepts and skills for each domain of mathematical content:

- Counting and Cardinality
- Number and Operations in Base Ten
- Number and Operations—Fractions
- Ratios and Proportional Relationships
- The Number System
- Operations and Algebraic Thinking
- Expressions and Equations
- Functions
- Geometry
- Measurement and Data
- Statistics and Probability

	UNITS								
Grades	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Counting and Cardinality									
Know number names and the count sequence. K.CC.1, K.CC.2, K.CC.3									
Count to 100 by ones.	12								
Count to 100 by tens.	12								
Count forward from a given number.	12								
Write numbers from 0 to 20.	2, 3, 10, 11								
Represent up to 20 objects with a written numeral.	2, 3, 10, 11								
Count to tell the number of objects. K.CC.4, K.CC.5									
Understand the relationship between numbers and quantities.	2, 3								
Connect counting to cardinality.	2, 3								
Count objects, saying the number names in the standard order.	2, 3								
Pair each object counted with one and only one number name and vice versa.	2, 3								
Understand that each successive number name represents one more.	2, 3								
Understand that the last number said tells the number of objects in a group.	2, 3								
Understand that the number of objects in a given group is the same regardless of their arrangement.	2, 3								
Count to know how many objects in a group of up to 10 objects in a scattered formation.	2, 3								
Count to know how many objects in a group of up to 20 objects in a line, rectangular array, or circle.	2, 3, 11								
Given a number up to 20, count out that many objects.	2, 3, 11								

	UNITS								
Grades	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Compare numbers. K.CC.6, K.CC.7									
Compare the number of objects in two groups using matching or counting.	4								
Compare two numbers between 1 and 10.	4								
Number and Operations in Base Ten									
Work with numbers 11–19 to gain foundations for place value. K.NBT.1									
Compose numbers from 11 to 19.	10, 11								
Decompose numbers from 11 to 19.	10, 11								
Understand that teen numbers are composed of ten ones and some more ones.	10, 11								
Extend the counting sequence. 1.NBT.1									
Count to 120 starting at any number less than 120.		5, 6							
Read and write numerals to 120.		5, 6							
Represent up to 120 objects with a written numeral.		5, 6							
Understand place value. 1.NBT.2, 2.NBT.1, 2.NBT.2, 2.NBT.3, 4.NBT.1, 5.NBT.1, 5.NBT.2									
Count within 1,000.			2						
Skip count by 2s, 5s, 10s, and 100s			2, 4						
Understand that the two digits in a 2-digit number represent some tens and some ones.		5							
Understand that 10 can be thought of a bundle of ten ones—called a “ten.”		5							
Understand that numbers from 11 to 19 are composed of a ten and one to nine ones.		5							
Understand that multiples of 10 from 10 to 90 refer to one to nine tens (and 0 ones).		5							
Understand that the three digits in a 3-digit number represent some hundreds, tens, and ones.			2						

Grades	UNITS K	1	2	3	4	5	6	7	8
Understand place value. 1.NBT.2, 2.NBT.1, 2.NBT.2, 2.NBT.3, 4.NBT.1, 5.NBT.1, 5.NBT.2									
Understand that 100 can be thought of a bundle of ten tens—called a "hundred."			2						
Understand that multiples of 100 from 100 to 900 refer to one to nine hundreds (and 0 tens and 0 ones).			2						
Read and write numbers to 1000 using numerals, number names, and expanded form.			2						
Understand the structure of base-ten place value system.					3	2			
Use whole number exponents to denote powers of 10.						2			
Explain patterns in the number of zeros of a product when multiplying a number by a power of 10.						4			
Explain patterns in the placement of the decimal points when a decimal is multiplied or divided by a power of 10.						5, 8			
Compare numbers. 1.NBT.3, 2.NBT.4, 4.NBT.2, 5.NBT.3									
Compare two 2-digit numbers based on place value, and record comparisons using the symbols >, =, and <.		5							
Compare two 3-digit numbers based on place value, and record comparisons using the symbols >, =, and <.			2						
Compare two multi-digit whole numbers.					3				
Compare two decimals to thousandths.						2			
Round numbers. 3.NBT.1, 4.NBT.3, 5.NBT.4									
Round whole numbers to the nearest 10 or 100.				2					
Round multi-digit whole numbers to any place.					3				
Round decimals to any place.						2, 3, 5, 8			

	UNITS								
Grades	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Use place value understanding and properties of operations to perform multi-digit arithmetic. 1.NBT.4, 1.NBT.5, 1.NBT.6, 2.NBT.5, 2.NBT.6, 2.NBT.7, 2.NBT.7.1, 2.NBT.8, 2.NBT.9, 3.NBT.2, 3.NBT.3, 4.NBT.4, 4.NBT.5, 4.NBT.6, 5.NBT.5, 5.NBT.6									
Mentally find 10 more or 10 less than a given number.		12, 13							
Mentally add or subtract 10 or 100 to a given number.			10, 11						
Add within 100 using a range of strategies.		12							
Add within 1,000 using a range of strategies.			10, 11						
Use estimation strategies to make reasonable estimates in problem solving.			4,5						
Fluently add within 1,000.				2					
Fluently add multi-digit whole numbers using the standard algorithm.					4				
Subtract multiples of 10 from multiples of 10 in the range 10–90.		13							
Subtract within 1,000 using a range of strategies.			11						
Fluently subtract within 1,000.				2					
Fluently subtract multi-digit whole numbers using the standard algorithm.					4				
Fluently subtract multi-digit whole numbers using the standard algorithm.			10, 11						
Explain addition and subtraction strategies using place value and properties of operations.				11					
Multiply 1-digit numbers by multiples of 10.					6				
Multiply a whole number of up to 4 digits by a 1-digit whole number.					6				
Multiply two 2-digit numbers.						4			
Fluently multiply multi-digit whole numbers using the standard algorithm.					7				
Find whole number quotients and remainders with up to 4-digit dividends and 1-digit divisors.						7			

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Grades	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Understand the place value system. 4.NBT.2, 5.NBT.3									
Read and write multi-digit whole numbers.					3				
Read and write decimals to thousandths.						2			
Perform operations with decimals to hundredths. 5.NBT.5, 5.NBT.7									
Fluently multiply multi-digit whole numbers using the standard algorithm.						4			
Add, subtract, multiply, and divide decimals to hundredths.						3, 5, 7, 8			
Number and Operations—Fractions									
Develop understanding of fractions as numbers. 3.NF.1									
Understand what a fraction is.				8, 12					
Represent fractions on the number line.				8					
Relate whole numbers and fractions.				8, 12					
Fraction equivalence. 3.NF.2, 4.NF.1									
Explain equivalence of fractions.				8, 9					
Relate fraction equivalence to size.				8, 9					
Relate fraction equivalence to the number line.				8, 9					
Generate equivalent fractions.				8, 9	9				
Explain fraction equivalence.					9				
Express fractions with denominator 10 as equivalent fractions with denominator 100.					12				
Compare fractions. 3.NF.3, 4.NF.2									
Compare fractions with the denominator by reasoning about their size.				9					
Compare fractions with the same numerator by reasoning about their size.				9					

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Compare fractions. 3.NF.3, 4.NF.2									
Compare fractions with different numerators.					9				
Compare fractions with different denominators.					9				
Operations with fractions. 4.NF.3, 4.NF.4, 5.NF.1, 5.NF.2, 5.NF.3, 5.NF.4, 5.NF.5, 5.NF.6, 5.NF.7									
Add fractions with like denominators.					10, 11				
Add mixed numbers with like denominators.					11				
Subtract fractions with like denominators.					10				
Subtract mixed numbers with like denominators.					11				
Solve problems involving addition and subtraction of fractions.					10, 11				
Add fractions with unlike denominators.						9			
Subtract fractions with unlike denominators.						9			
Solve problems involving addition of fractions with unlike denominators.						9			
Solve problem involving subtraction of fractions with unlike denominators.						9			
Multiply a fraction by a whole number.					13				
Multiply a whole number by a fraction.						10			
Multiply fractions.						10			
Find the areas of rectangles with fractional edge lengths by multiplying the side lengths.					10				
Interpret multiplication as scaling.						10			
Solve problems involving multiplication of fractions.					13	10, 11			
Solve problems involving division of whole numbers with quotients that are fractions.						11			
Divide fractions by whole numbers and whole numbers by fractions.						11			

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Grades	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Understand decimal notation for fractions and compare decimal fractions. 4.NF.5, 4.NF.6, 4.NF.7									
Add two fractions with denominators 10 and 100.					12				
Write decimal fractions using decimal notation.					12				
Compare two decimals to hundredths by reasoning about their size and justify conclusions by using a number line or another visual model.					12				
Ratios and Proportional Relationships									
Proportional Relationships. 6.RP.1, 6.RP.2, 6.RP.3, 7.RP.1, 7.RP.2, 7.RP.3, 8.EE.5, 8.EE.6									
Use ratios and ratio language.							3		
Determine rates and unit rates.							3	3	
Find equivalent ratios.							3, 4	3, 4	
Graph and compare equivalent ratios.							3		
Solve ratio and unit rate problems.							3	3, 4	
Find percent of a number.							4		
Solve problems by finding the whole.							4		
Convert measurements using ratio reasoning.							3		
Understand proportional relationships.								3	
Use tables and graphs to determine proportionality.								3	
Identify the constant of proportionality and interpret it as the unit rate.								3	
Represent proportional relationships by equations.								3	
Explain special points on graphs of proportional relationships.								3	
Solve multi-step problems related to ratios and percentages.								3, 4	

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Proportional relationships. 6.RP.1, 6.RP.2, 6.RP.3, 7.RP.1, 7.RP.2, 7.RP.3, 8.EE.5, 8.EE.6									
Graph proportional relationships.								3	3
Compare proportional relationships.									3
The Number System									
Compute with multi-digit whole numbers. 6.NS.2, 6.NS.4									
Divide multi-digit numbers.							2		
Find and use greatest common factor.							6		
Find and use least common multiple.							6		
Use the Distributive Property.							6		
Divide fractions. 6.NS.1									
Divide fractions by fractions.							6		
Understand rational numbers. 6.NS.5, 6.NS.6, 6.NS.7, 6.NS.8, 7.NS.1									
Define and use positive and negative numbers.							7		
Represent rational numbers as points on number lines.							7	6	
Understand opposite signs of numbers as opposite sides of zero on a number line.							7		
Describe the placement of ordered pairs in a four-quadrant coordinate plane.							7		
Find and position numbers on number lines and coordinate planes.							7		
Find distance between points on the coordinate plane.							7		
Connect inequalities and positions on number lines.							8		
Order rational numbers.							7		
Determine absolute value of rational numbers.							7		

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Understand rational numbers. 6.NS.5, 6.NS.6, 6.NS.7, 6.NS.8, 7.NS.1									
Distinguish between absolute value and order.							7		
Understand that opposite quantities make zero.								6	
Operations with rational numbers. 6.NS.3, 7.NS.1, 7.NS.2, 7.NS.3, 8.NS.1									
Compute fluently with positive decimals.							2		
Add and subtract integers.								6	
Multiply and divide integers.								6	
Add and subtract positive and negative rational numbers.								6	
Multiply and divide positive and negative rational numbers.								6	
Determine distance between rational numbers on a number line.								6	
Convert rational numbers to decimals and vice versa.								6	9
Solve problems involving four operations with rational numbers.								6	
Irrational numbers. 8.NS.1, 8.NS.2									
Understand numbers that are not rational are irrational.									9
Use rational approximations of irrational numbers.									9
Operations and Algebraic Thinking									
Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from. K.OA.1, K.OA.2, K.OA.3, K.OA.4, K.OA.5									
Represent addition using a range of models.	7, 8, 9								
Represent subtraction using a range of models.	8								
Add within 10 using objects and drawings.	7, 8								
Subtract within 10 using objects and drawings.	8								
Solve addition problems within 10.	7, 8								

	UNITS								
Grades	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from. K.OA.1, K.OA.2, K.OA.3, K.OA.4, K.OA.5									
Solve subtraction problems within 10.	8								
Decompose numbers up to 10 in multiple ways.	9								
Make 10 using objects and drawings.	9								
Fluently add within 5.	9								
Fluently subtract within 5.	9								
Represent and solve problems involving addition and subtraction. 1.OA.1, 1.OA.2									
Use addition to solve word problems within 20.		8, 9, 10							
Use subtraction to solve word problems within 20.		9, 10							
Solve word problems within 20 with 3 addends.		11							
Apply properties of operations and the relationship between addition and subtraction. 1.OA.3, 1.OA.4									
Use properties of operations to add.		11							
Understand subtraction as an unknown addend problem.		3							
Fluently add and subtract. 1.OA.5, 1.OA.6, 2.OA.2									
Relate counting to addition.		2							
Relate counting to subtraction.		3							
Add within 20 using different strategies.		2							
Subtract within 20 using different strategies.		3							
Fluently add within 10.		2							
Fluently subtract within 10.		3							
Fluently add within 20.			4						
Fluently subtract within 20.			5						

Grades	UNITS K	1	2	3	4	5	6	7	8
Work with addition and subtraction equations. 1.OA.7, 1.OA.8									
Understand the meaning of the equal sign.		2							
Determine whether an addition equation is true.		11							
Determine whether a subtraction equation is true.		11							
Determine the unknown in an addition equation.		11							
Determine the unknown in a subtraction equation.		11							
Represent and solve problems involving addition and subtraction. 2.OA.1									
Add within 100 to solve one-step problems.			3						
Subtract within 100 to solve one-step problems.			3, 5						
Add within 100 to solve two-step problems.			8						
Subtract within 100 to solve two-step problems.			8						
Work with equal groups of objects to gain foundations for multiplication. 2.OA.3, 2.OA.4									
Determine whether a group of objects has an even or odd number of objects.			13						
Express an even number as a sum of two equal addends.			13						
Use addition to find the total number of objects arranged in a rectangular array.			13						
Express the total number of objects in an array as a sum of two equal addends.			13						
Represent and solve problems involving multiplication and division. 3.OA.1, 3.OA.2, 3.OA.3, 3.OA.4									
Understand multiplication as the product of the number of equal groups of objects.				3					
Understand division as the partitioning of a group of objects into smaller equal groups.				3					
Multiply within 100 to solve problems.				4, 5, 13					
Divide within 100 to solve problems.				4, 5, 13					

	UNITS								
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Represent and solve problems involving multiplication and division. 3.OA.1, 3.OA.2, 3.OA.3, 3.OA.4									
Determine the unknown in a multiplication equation.				3, 5, 10, 13					
Determine the unknown in a division equation.				3, 10, 13					
Understand properties of multiplication and the relationship between multiplication and division. 3.OA.5, 3.OA.6									
Use properties of operations to multiply.				3, 10, 11					
Understand division as an unknown factor problem.				3, 10, 13					
Multiply and divide within 100. 3.OA.7									
Fluently multiply within 100.				4, 5, 10					
Fluently divide within 100.				4, 5, 10					
Solve problems involving the four operations, and identify and explain patterns in arithmetic. 3.OA.8, 3.OA.9, 4.OA.3									
Solve two-step problems using four operations.				2, 11					
Represent the unknown in an equation with a letter.				2, 11	4, 7, 8				
Assess the reasonableness of answers using estimation strategies.				2, 11	4, 7, 8				
Identify arithmetic patterns.				2, 4, 11					
Explain arithmetic patterns using properties of operations.				2, 4, 11					
Use the four operations with whole numbers to solve problems. 4.OA.1, 4.OA.2, 4.OA.3									
Interpret multiplication as a comparison.					5				
Solve problems involving multiplicative comparison.					5, 7, 8				
Use the four operations with whole numbers to solve problems. 4.OA.1, 4.OA.2, 4.OA.3									
Distinguish multiplicative comparison from additive comparison.					5				
Solve multi-step problems with whole numbers using four operations.					4, 7, 8				

	UNITS								
Grades	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Gain familiarity with factors and multiples. 4.OA.4									
Find all factor pairs for a whole number up to 100.					6				
Understand that a whole number is a multiple of each of its factors.					6				
Determine whether a given number is prime or composite.					6				
Generate and analyze patterns. 4.OA.5									
Generate a number pattern that follows a given rule.					2				
Generate a shape pattern that follows a given rule.					2				
Identify apparent features of a pattern that are not explicit in the rule.					2				
Write and interpret numerical expressions. 5.OA.1, 5.OA.2, 5.OA.2.1									
Use parentheses, brackets, or braces in numerical expressions.						13			
Evaluate expressions with parentheses, brackets, or braces.						13			
Express a whole number in the range 2–50 as a product of its prime factors.						13			
Analyze patterns and relationships. 5.OA.3									
Generate two numerical patterns using two given rules.						13			
Identify apparent relationships between corresponding terms.						13			
Form ordered pairs from the two patterns.						13			
Graph ordered pairs on a coordinate plan.						13			
Expressions and Equations									
Expressions. 6.EE.1, 6.EE.2, 6.EE.3, 6.EE.4, 6.EE.6, 7.EE.1, 7.EE.2, 7.EE.3, 8.EE.1, 8.EE.3, 8.EE.4									
Write and evaluate numerical expressions with whole-number exponents.							6		
Write and evaluate algebraic expressions.							6		
Perform order of operations.							6		

	UNITS								
Grades	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Expressions. 6.EE.1, 6.EE.2, 6.EE.3, 6.EE.4, 6.EE.6, 7.EE.1, 7.EE.2, 7.EE.3, 8.EE.1, 8.EE.3, 8.EE.4									
Add and subtract linear expressions.								7	
Factor and expand linear expressions.								7	
Write expressions to represent real-world problems.							6	7	
Identify equivalent expressions using substitution.							6		
Use the properties of operations to generate equivalent expressions.							6	7	
Apply properties of integer exponents.									9
Write numbers in scientific notation and vice versa.									9
Perform operations with numbers in scientific notation.									9
One-variable equations. 6.EE.5, 6.EE.6, 6.EE.7, 7.EE.4, 7.G.4, 7.G.5, 7.G.6, 8.EE.2, 8.EE.7, 8.G.9									
Solve equations using substitution given a specified set.							8		
Write and solve linear equations to solve problems.							8	8	3
Determine one, infinitely many, or no solutions.									3
Solve simple quadratic and cubic equations by taking square and cube roots.									6, 7
One-variable inequalities. 6.EE.8, 7.EE.3, 7.EE.4									
Write inequalities.							8		
Write, graph, and solve inequalities. 6.EE.8, 7.EE.4									
Solve linear inequalities.							8	8	
Graph solutions of inequalities on number lines.							8	8	
Two-variable equations. 6.EE.9, 8.EE.6									
Represent relationships between two variables with tables, graphs, and equations.							9		
Find slope of a line.									3

Grades	UNITS								
	K	1	2	3	4	5	6	7	8
Systems of equations. 8.EE.8									
Solve systems by graphing.									8
Solve systems algebraically.									8
Solve problems by writing and solving a system of equations.									8
Functions									
Define and interpret functions. 6.EE.9, 7.RP.2, 8.F.1, 8.F.2, 8.F.3, 8.F.4									
Determine relationships between two variables.							9	3	3, 4
Define functions.									4
Compare functions with multiple representations.									4
Use functions to model.									4
Find rate of change and initial value.									4
Interpret the equation of a linear function.									4
Understand nonlinear functions.									4
Qualitative graphs. 8.F.3									
Sketch and describe qualitative graphs.									4
Geometry									
Identify and describe shapes. K.G.1, K.G.2, K.G.3									
Describe objects in the environment using names of shapes.	6, 13, 14								
Describe position of objects relative to other objects.	6, 13								
Recognize and name shapes with different sizes and orientations.	6, 13								
Understand that 2-dimensional shapes are flat.	13								
Understand that 3-dimensional shapes are solid.	13								

Grades	UNITS								
	K	1	2	3	4	5	6	7	8
Analyze, compare, create, and compose shapes. K.G.4, K.G.5, K.G.6									
Analyze and compare 2-dimensional shapes.	14								
Analyze and compare 3-dimensional shapes.	14								
Build and draw shapes that can be found in the world.	14								
Compose simple shapes to form larger shapes.	14								
Reason with shapes and their attributes. 1.G.1, 1.G.2, 2.G.1, 3.G.1, 5.G.3, 5.G.4									
Distinguish between defining and non-defining attributes.		14							
Build or draw shapes with given defining attributes.		14							
Compose 2-dimensional and 3-dimensional shapes.		14							
Compose new shapes from composite shapes.		14							
Recognize and draw 2-dimensional and 3-dimensional figures with specified attributes.			12						
Identify triangles, quadrilaterals, pentagons, hexagon, and cubes.			12						
Understand that shapes in different categories may share attributes.				14					
Understand that shared attributes of shapes can define a larger category.				14					
Recognize rhombuses, rectangles, and squares as examples of quadrilaterals.				14					
Classify 2-dimensional figures in a hierarchy based on properties.						14			
Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.						14			
Partition shapes into equal parts. 1.G.3, 2.G.2, 2.G.3, 3.G.2									
Partition circles and rectangles into two, three, or four equal shares.		15	12						
Understand that decomposing shapes into more equal shares creates smaller shares.		15							

	UNITS								
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Partition shapes into equal parts. 1.G.3, 2.G.2, 2.G.3, 3.G.2									
Partition a rectangle into rows and columns of the same-size squares.			12						
Recognize that equal shares of identical wholes do not always have the same shape.			12						
Partition shapes into parts with equal areas.				8					
Express the area of each equal part of a shape as a fraction of the whole.				8					
Draw and identify lines and angles, and classify shapes by properties of their lines and angles. 4.G.1, 4.G.2, 4.G.3									
Draw and identify points, lines, line segments, rays, and angles.					16				
Draw and identify parallel and perpendicular lines.					16				
Draw and identify right, acute, and obtuse angles.					16				
Use angle measure to classify figures.					16				
Classify triangles based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size.					16				
Classify quadrilaterals based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size.					16				
Recognize right triangles as a category and identify right triangles.					16				
Identify figures with line symmetry.					16				
Draw lines of symmetry.					16				
Understand the coordinate system. 5.G.1, 5.G.2									
Understand a coordinate system.						12			
Graph points on the first quadrant of the coordinate plane.						12			
Interpret coordinate values of points in the first quadrant of the coordinate plane.						12			

	UNITS								
Grades	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Angles and polygons. 7.G.2, 7.G.5, 8.G.3, 8.G.5									
Use angle relationships.								2	2, 6
Draw polygons given conditions.								2	
Measurement. 6.G.1, 6.G.2, 6.G.4, 7.G.3, 7.G.4, 7.G.6, 8.G.9									
Find circumference of circles.								2	
Find area of circles.								2	
Find area of polygons.							5	2	
Find volume of prisms.							5	2	
Find volume of cones, cylinders, and spheres.									7
Find surface area of solid figures.							5	2	
Describe cross sections.								2	
The Pythagorean theorem. 8.G.6, 8.G.7, 8.G.8									
Prove and use the Pythagorean theorem.									6
Congruence, similarity, and transformations. 7.G.1, 8.EE.5, 8.G.1, 8.G.2, 8.G.3, 8.G.5									
Represent congruence using transformations.									2
Describe transformations using coordinates.									2
Describe congruent angles using informal arguments.									2
Describe congruent figures.									2
Solve problems involving scale drawings.								2	
Represent similarity using transformations.									2
Describe similar triangles.									2

	UNITS								
Grades	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Analytic geometry. 6.G.3, 8.G.3, 8.G.8									
Draw polygons in the coordinate plane.							7		2
Find lengths of polygons in the coordinate plane.							7		6
Geometric modeling. 6.G.1, 6.G.2, 6.G.3, 6.G.4, 7.G.4, 7.G.6, 8.G.7, 8.G.9									
Describe real-world objects.							5	2	2
Measurement and Data									
Describe and compare measurable attributes. K.MD.1, K.MD.2									
Describe measurable attributes of objects, such as length or weight.	5								
Describe several measurable attributes of a single object.	5								
Compare two objects for the same measurable attribute.	5								
Measure and estimate lengths. 1.MD.1, 1.MD.2, 2.MD.1, 2.MD.2, 2.MD.3, 2.MD.4									
Order three objects by length.		4							
Compare the length of two objects indirectly by comparing to the length of a third object.		4							
Express the length of an object as a whole number of length units.		4							
Understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps.		4							
Measure the length of an object using an appropriate tool.			6						
Measure the length of an object using two different units and describe how the measurements relate to the size of the unit.			6						
Estimate lengths of objects using inches, feet, centimeters, and meters.			6						
Measure to compare lengths of objects and describe the difference in standard units.			6						
Relate addition and subtraction to length. 2.MD.5, 2.MD.6									
Use addition within 100 to solve problems involving length.			6						

Grades	UNITS K	1	2	3	4	5	6	7	8
Relate addition and subtraction to length. 2.MD.5, 2.MD.6									
Use subtraction within 100 to solve problems involving length.			6						
Represent whole numbers as lengths on a number line.			4, 5, 6						
Show sums and differences within 100 on a number line.			4, 5, 6						
Solve problems involving measurement and conversion of measurements. 4.MD.1, 4.MD.2									
Know relative sizes of measurement within one system of measurement.					14				
Express measurements in a larger unit in terms of a smaller unit.					14				
Record measurement equivalents in a two-column table.					14				
Solve problems involving distances, intervals of time, liquid volumes, masses of objects, and money.					12, 13, 14				
Represent measurement quantities using diagrams, such as number line diagrams.					14				
Convert like measurement within a given measurement system. 5.MD.1									
Convert among different-sized standard measurements within a given system.						8, 11			
Solve multi-step problems involving conversions.						8, 11			
Work with time and money. 1.MD.3, 2.MD.7, 2.MD.8, 3.MD.1									
Tell and write time in hours using analog and digital clocks.		15							
Tell and write time in half-hours using analog and digital clocks.		15							
Tell and write time to the nearest five minutes on analog and digital clocks.			7						
Use a.m. and p.m.			7						
Know relationships of time.			7						
Tell and write time to the nearest minute.				12					
Measure time interval in minutes.				12					

Grades	UNITS								
	K	1	2	3	4	5	6	7	8
Work with time and money. 1.MD.3, 2.MD.7, 2.MD.8, 3.MD.1									
Solve problems involving addition of time intervals in minutes.				12					
Solve problems involving subtraction of time intervals in minutes.				12					
Solve problems involving bills and coins.			9						
Solve problems involving measurement and estimation of liquid volumes and masses of objects. 3.MD.2									
Measure liquid volume and masses of objects.				13					
Estimate liquid volume and masses of objects.				13					
Solve one-step problems involving liquid volumes.				13					
Solve one-step problems involving masses.				13					
Geometric measurement: understand concepts of area. 3.MD.5, 3.MD.6, 3.MD.7, 4.MD.3									
Understand area as an attribute of plane figures.				7					
Understand concepts of area measurement.				7					
Measure the area of a rectangle by counting tiles.				7					
Use multiplication to determine the area of a rectangle.				7					
Use area models to represent the distributive property.				7					
Find the area of rectilinear figures by decomposing them into rectangles and adding the areas of the rectangles.				7					
Solve problems involving the area of rectilinear figures.				7					
Apply the area formula for rectangles to solve problems.					15				
Geometric measurement: understand perimeter. 3.MD.8, 4.MD.3									
Find the perimeter of polygons given side lengths.				14					
Determine an unknown side length given the perimeter and other side lengths.				14					
Show rectangles with the same perimeter and different areas.				14					

	UNITS								
Grades	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Geometric measurement: understand perimeter. 3.MD.8, 4.MD.3									
Show rectangles with the same area and different perimeters.				14					
Solve problems involving perimeters of polygons.				14					
Apply the perimeter formula for rectangles to solve problems.					15				
Geometric measurement: understand concepts of angle and measure angles. 4.MD.5, 4.MD.6, 4.MD.7									
Understand that angles are geometric shapes.					16				
Understand concepts of angle measurement.					16				
Measure angles in whole-number degrees using a protractor.					16				
Sketch angles of specified measure.					16				
Understand angle measure as additive.					16				
Solve addition problems to find unknown angles.					16				
Solve subtraction problems to find unknown angles.					16				
Geometric measurement: understand concepts of volume. 5.MD.3, 5.MD.4, 5.MD.5									
Understand volume as an attribute of 3-dimensional figures.						6			
Understand concepts of volume measurement.						6			
Measure volume by counting cubes.						6			
Find the volume of a right rectangular prism by multiplying the edge lengths.						6			
Represent three-fold whole-number products as volumes to show the associative property.						6			
Use the volume formula to determine volume.						6			
Understand that volume is additive.						6			
Find volumes of composite 3-dimensional figures.						6			
Solve problems involving volume.						6			

Grades	UNITS K	1	2	3	4	5	6	7	8
Classify objects and count the number of objects in each category. K.MD.3									
Classify objects into given categories.	5								
Count and sort the number of objects in each category.	5								
Represent and interpret data. 1.MD.4, 2.MD.9, 2.MD.10, 3.MD.3, 3.MD.4, 4.MD.4, 5.MD.2									
Organize, represent, and interpret data with up to three categories.		7							
Analyze data by determining total number of data points and the number in each category.		7							
Compare the number of data points in different categories.		7							
Generate measurement data of lengths of object.			7	13					
Make a line plot to show measurement data.			7						
Make a line plot with fractional intervals to display measurement data gathered.				13	14	12			
Solve problems involving addition and subtraction of fractions using information presented in line plots.					14				
Solve problems involving information presented in line plots with fractional values.						12			
Draw a picture graph to represent a data set.			7						
Draw a bar graph to represent a data set.			7						
Solve problems about the data presented in a bar graph.			7						
Draw a scaled picture graph to represent a data set.				6					
Draw a scaled bar graph to represent a data set.				6					
Solve one- and two-step problems using information presented in scaled bar graphs.				6					
Statistics and Probability									
Statistics: univariate data. 6.SP.1, 6.SP.2, 6.SP.3, 6.SP.4, 6.SP.5, 7.SP.1, 7.SP.2, 7.SP.3, 7.SP.4									
Define and describe statistical questions.							2		
Define distribution of data.							2		

	UNITS								
Grades	**K**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Statistics: univariate data. 6.SP.1, 6.SP.2, 6.SP.3, 6.SP.4, 6.SP.5, 7.SP.1, 7.SP.2, 7.SP.3, 7.SP.4									
Find measures of center.							2	5	
Find measures of variation.							2	5	
Display numerical data—dot plots, histograms, and box plots.							2		
Summarize numerical data.							2		
Understand and use random sampling.								5	
Draw statistical inferences.								5	
Generate multiple samples.								5	
Compare two populations.								5	
Statistics: bivariate data. 8.SP.1, 8.SP.2, 8.SP.3, 8.SP.4									
Construct scatter plots to investigate associations.									5
Use and assess lines of fit in scatterplots.									5
Use the equation of a line of fit to solve problems.									5
Describe and interpret two-way frequency tables and associations.									5
Probability. 7.SP.5, 7.SP.6, 7.SP.7, 7.SP.8									
Find the likelihood of chance events.								9	
Represent sample spaces.								9	
Understand probability.								9	
Find relative frequency and experimental probability.								9	
Compare relative frequency to theoretical probability.								9	
Develop probability models.								9	
Find theoretical probability of compound events.								9	
Design and use simulations.								9	

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