

Primary Mathematics Scope and Sequence

C=Common Core Edition; S = Standards Edition; U = US Edition

The letters indicate where the concept is first introduced or/developed in each edition

Number Notation and Place Value	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	CCSS
Give a number to indicate the number of objects in a set	CSU					
Represent a given number by a set of objects	CSU					1.NBT.1
Use ordinal numbers such as first, second, third up to tenth	CSU					
Count to 100 by tens and ones	CSU					1.NBT.2
Read and write numbers up to 100 in numerals, words, and expanded form	CSU					1.NBT.1
Recognize the place-value of tens and ones	CSU					1.NBT.2
Make a reasonable estimate of sets of objects within 100	CS					
Describe and extend regular number patterns within 100	CSU					
Count to 120 and read and write numbers to 120	C					1.NBT.1
Compare two 2-digit numbers using place-value	CSU					1.NBT.3
Use the symbols ">" and "<" to compare two numbers within 100	CS	U				1.NBT.3
Compare and order numbers within 100	CSU					
Represent whole numbers within 100 on a number line		CSU				2.MD.6
Show sums and differences on a number line	CSU	C				2.MD.6
Count to 1,000 by hundreds, tens, and ones		CSU				2.NBT.2
Read and write numbers up to 1,000 in numerals, words, and expanded form		CSU				2.NBT.3
Recognize place values of hundreds, tens, and ones		CSU				2.NBT.1
Compare two 3-digit numbers using place-value and use the symbols ">" and "<"		CSU				2.NBT.4
Compare and order numbers within 1,000		CSU				
Read and write numbers up to 10,000 in numerals, words, and expanded form, and recognize the place value of each digit			CSU			
Compare and order numbers within 10,000			CSU			
Describe and extend regular number patterns within 10,000			CSU			3.OA.9
Round numbers within 10,000 to the nearest 10 or 100			CSU			3.NBT.1
Round numbers within 10,000 to the nearest 1,000			CS			

	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	CCSS
Solve multistep word problems involving adding and subtracting mixed numbers, multiplying proper fractions, and dividing a proper fraction by a whole number					CSU	
Divide a whole number by a proper fraction					CSU	
Divide a fraction by a fraction					CSU	
Solve multi-step word problems involving the four operations on fractions					CSU	
Money						
Tell the different denominations of coins and bills	CSU					
Match one coin or bill of one denomination to an equivalent set of coins and bills of another denomination	CSU					
Count combinations of coins up to 100 cents or bills up to 100 dollars	CSU					
Add and subtract money in dollars only or cents only	CSU					
Solve 1-step word problems involving money in the same unit	CSU					
Use \$ and ¢ symbols appropriately	CSU	CSU				2.MD.8
Solve word problems involving counting the amount in dollar bills, quarters, dimes, nickels and pennies		CSU				2.MD.8
Count combinations of bills and coins to \$10.00		CSU				
Read and write money using decimal notation		CSU				
Convert from dollars and cents to cents only and vice-versa		CSU				
Add and subtract money within \$10.00 in decimal notation, including making change		CSU				
Solve 1-step word problems involving addition and subtraction of money in decimal notation within \$10.00		CSU				
Add and subtract money within \$100.00 in using decimal notation			CSU			
Multiply and divide money amounts within \$10.00 in decimal notation by a whole number			S	CSU		
Solve up to 2-step word problems involving money in decimal notation			CSU			
Solve word problems involving the four operations and money, including simple fractions or decimals, converting from larger to smaller unit				CSU		4.MD.2

Decimals						
	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	CCSS
Use decimal notation for fractions with denominators of 10 or 100, locate on a number line				CSU		4.NF.6
Compare two decimals to hundredths using $>$, $<$, $=$				CSU		4.NF.7
Recognize that in a multi-digit number, a digit in one place represents ten times what it represent in the place to its right and $1/10$ of what it represents to the left				CSU	CSU	5.NBT.1
Read and write decimals to thousandths using base-ten numerals, number names, and expanded form				CSU	CSU	5.NBT.3a
Compare two decimals to thousandths based on place value using symbols $>$, $<$, and $=$				CSU	CSU	5.NBT.3b
Compare and order decimals to thousandths				CSU	CSU	
Round decimals to the nearest whole number or 1 decimal place				CSU		
Round decimals to any place					CSU	5.NBT.4
Convert a decimal to a fraction and simplify				CSU	CSU	
Convert a fraction to a decimal number (denominators are a factor of 10, 100, or 1000)				CSU	CSU	
Compare and order a mixed list of decimals and fractions				CSU	CSU	
Use the four operations to solve word problems involving measurement and simple decimals				CSU		4.MD.2
Add and subtract decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operation				CSU	CSU	5.NBT.7
Mentally add and subtract tenths or hundredths from decimals or whole numbers				CSU		
Multiply and divide decimals up to 2 decimal places by a 1-digit whole number including decimal quotients				CSU		
Round quotients to up to 1 decimal place				CSU		
Solve up to 2-step word problems involving decimals				CSU		
Use estimation to check reasonableness of answers				CSU		
Explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10					CSU	5.NBT.2
Multiply and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operation					CSU	5.NBT.7
Round quotients to up to 2 decimal places					CSU	
Solve word problems involving decimals and check reasonableness of answers				CSU	CSU	

Time						
	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	CCSS
Tell time in terms of on the hour or half-past using analog clocks	CSU					
Tell and write time in hours and half-hours using analog and digital clocks	C					1.MD.3
Relate time to events of the day	CSU					
Estimate reasonable time intervals	CS					
Tell and write time to the nearest 5 minutes from analog and digital clocks		CSU				2.MD.7
Use a.m and p.m.		CSU				2.MD.7
Find the duration of time intervals in minutes (counting by 5s) or hours		SU				
Know relationships of time (years, months, days, weeks, hours, and seconds)		S				
Tell time to the minute			CSU			3.MD.1
Solve word problems involving the addition and subtraction of time in minutes using a number line		SU	CSU			3.MD.1
Find the duration of time intervals in hours and minutes and solve word problems involving time duration in hours and minutes			CSU			
Visualize the relative magnitudes of hours, minutes, and seconds and convert from the larger unit to the smaller unit			CSU	CSU		4.MD.1
Convert hours and minutes to minutes, and minutes and seconds to seconds, and vice-versa			CSU			
Solve word problems involving the four operations and time including simple fractions or decimals				CSU		4.MD.2
Length, Mass, Weight, and Capacity						
Compare the length of two or more objects in non-standard units	CSU					1.MD.1
Measure length in non-standard units	CSU					1.MD.2
Measure length using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tools		CSU				2.MD.1
Measure the length of an object using different units and describe how the measurement relates to the unit size		CS				2.MD.2
Estimate and measure length in meters, centimeters, feet, or inches		CSU				2.MD.3
Measure to find out how much longer one object is than another and find the difference in length		CSU				2.MD.4

	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	CCSS
Use addition and subtraction within 100 to solve word problems using lengths given in the same unit		CSU				2.MD.5
Compare the mass of two or more objects in non-standard units	SU		C			3.MD.2
Estimate and measure mass in kilograms or grams		SU	CS			3.MD.2
Compare the capacity of two or more containers in non-standard units	SU		C			
Estimate and measure capacity in liters		SU	CSU			3.MD.2
Solve 1-step word problems involving mass or volume in only one unit		CSU	CSU			3.MD.2
Visualize the relative magnitudes of standard measurements of length, mass, capacity, weight, and time		SU	CSU	CSU		4.MD.1
Convert a measure in a larger unit to a smaller unit			CSU	CSU		4.MD.1
Record measurement equivalencies in a two-column table				C		4.MD.1
Estimate and measure in length, mass, weight, and capacity, in compound units			CSU			
Convert between kilometer and meter, meter and centimeter, kilograms and grams, liter and milliliter, feet and inches, pounds and ounces, gallons, quarts, and cups			CSU			
Add and subtract length, mass, weight, and capacity compound units			CSU	CS		
Solve up to 2-step word problems involving length, mass, capacity, weight, and time in compound units			CSU	CSU		
Multiply and divide length, mass, weight, capacity, and time in compound units				CSU		
Solve word problems involving the four operations and length, mass, weight, and capacity		SU	SU	CSU		
Solve word problems involving the four operations and length, capacity and mass, including simple fractions or decimals, converting from larger to smaller representing the measurements using diagrams such as number lines featuring a measurement scale				CSU		4.MD.2
Convert between measurements within the same system using fractions				CSU		
Convert between measurements within the same system using decimals					CSU	5.MD.1
Average and Rate						
Calculate the average					CSU	
Find the total amount given the average and number of items					CSU	
Understand and calculate rate					CSU	
Solve 3-step word problems involving average and rate					CSU	

	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	CCSS
Ratio and Proportion						
Use ratio to show relative size of 2 or 3 quantities					CSU	
Interpret ratios					CSU	
Find equivalent ratios					CSU	
Reduce a ratio to lowest terms					CSU	
Solve 2-step problems involving ratio					CSU	
Percentage						
Change fractions and decimals to percentage, and vice versa					CSU	
Express part of a whole as a percentage					CSU	
Calculate part of the whole given the percentage and the whole					CSU	
Solve 2-step word problems involving percentage					CSU	
Perimeter, Area, and Volume						
Find the area of shapes by covering them with unit squares or by counting squares		U	CSU			3.MD.5
Measure areas by counting squares in nonstandard units		U	CSU			3.MD.6
Visualize the relative sizes of square centimeter and square meter, and square inch and square foot			CSU			
Measure areas by counting squares in standard units (square cm, square in., and square foot)			CSU			3.MD.6
Find the area of a rectangle by tiling it			CSU			3.MD.7a
Derive the formula for area of a rectangle			C	CSU		3.MD.7a
Use the formula to calculate the area of rectangles with whole number side lengths			C	CSU		3.MD.7b
Use tiling and area to illustrate the distributive property			C		S	3.MD.7c
Find the area of simple composite figures made up of rectangles and solve problems			C	SU		3.MD.7d
Find the perimeter of polygons			CSU			3.MD.8
Find an unknown side length of a polygon given the length of the other sides			CSU	CSU		3.MD.8
Exhibit rectangles with same perimeter and different area, or same area and different perimeter			CSU			3.MD.8

	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	CCSS
Use the area and perimeter formulas for rectangles in real world and mathematical problems						4.MD.3
Derive the formula for the area of a triangle and find the area of a triangle given the base and height					CSU	
Solve problems involving area of a triangle					CSU	
Derive the formula for area of a parallelogram and find the area of parallelograms					CSU	
Find the area of compound shapes made of quadrilaterals					CSU	
Find the surface area of rectangular prisms					S	
Understand that volume can be measured with unit cubes			S	CSU	CSU	5.MD.3
Measure volumes by counting unit cubes of nonstandard units			S	CSU	CSU	5.MD.4
Visualize and identify new solids formed by increasing or decreasing the number of cubes of a given solid drawn on an isometric grid			S	CSU		
Visualize the relative sizes of a cubic meter, centimeter, inch, foot, and yard				CSU	CS	
Measure volume by counting unit cubes of standard units				CSU	CSU	5.MD.4
Derive the formulas $V = l \times w \times h$				CSU	CSU	5.MD.5a
Derive the formula $V = b \times h$					CSU	5.MD.5a
Find the volume of right rectangle prisms with whole number side length given the lengths and solve word problems				CSU	CSU	5.MD.5b
Find to volume of compound figures made of right rectangular prisms and solve word problems					CSU	5.MD.5c
Find one dimension of a right rectangular prism given its volume and the other two dimensions					CSU	
Recognize the equivalence of 1 liter/1000 ml and 1000 cm cubed				SU	CSU	
Solve 2-step word problems involving the volume in rectangular tanks and liquid in liters and milliliters or cubic centimeter					CSU	
Solve word problems involving finding the volume of a solid using the volume of displaced liquid					CU	
Find the radius and diameter of a circle				S		

Geometry						
	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	CCSS
Give and follow directions about location	S					
Arrange and describe objects in space by proximity, position, and direction	S					
Identify and name squares, rectangles, circles, and triangles; identify corners and sides	CSU	C				
Determine if a shape is open or closed	C	CS				1.G.1
Determine whether solid objects can stack, roll, or slide	CS					
Create a composite shape with 2-dimensional figure	CSU					1.G.2
Create a composite shape with solids	C		S			1.G.2
Group triangles, circles, squares, and rectangles according to shape, size, or color	CSU					1.G.1
Group simple shapes according to orientation	C					1.G.1
Identify flat and curved surfaces		CSU				
Identify straight lines and curves		CSU				
Identify triangles, quadrilaterals, pentagons and hexagons		C	CS			2.G.1
Identify octagons			CS			
Identify cubes		C				2.G.1
Complete a pattern according to shape, size, color, or orientation	CSU					
Complete a pattern according to two of the attributes of shape, size, and orientation		CSU				
Identify and name semicircles and quarter circles		CSU				
Identify squares, rectangles, triangles, circles, semicircles, and quarter circles within a given figure		CSU				
Draw a straight line of a given length		CSU				
Recognize and draw shapes having specified attribute		CSU				2.G.1
Categorize some shapes, including quadrilaterals			CS			3.G.1
Identify rhombuses, rectangles, and squares as examples of quadrilaterals			CS			3.G.1
Draw quadrilaterals that are not rhombuses, rectangles, or squares			C			3.G.1
Associate an angle as a certain amount of turning		C	CSU			
Identify right angles			CSU			
Tell whether an angle is greater or smaller than a right angle			CSU			
Recognize angles as shapes formed whenever two rays share an endpoint				C		4.MD.5
Understand that angles are measured with reference to degree of turning in a circle				CSU		4.MD.5a
Understand that 1 degree is 1/360 of a circle				CSU		4.MD.5a
Understand that that an angle that turns through n degrees has a measure of n degrees				CSU		4.MD.5b

	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	CCSS
Measure angles with a protractor				CSU		4.MD.6
Draw angles of specified measure				CSU		4.MD.6
Recognize that the angle measure of an angle divided into parts is the sum of the parts. Solve addition and subtraction problems to find unknown angles. Write equations using a symbol to stand for the unknown angle.				CSU		4.MD.7
Associate quarter turns with 90° , half turn with 180° , and three-quarter turn with 270°				CSU		
Identify and draw perpendicular and parallel lines				CSU		4.G.1
Identify and draw acute and obtuse angles				CSU		4.G.1
Identify and draw points, line segments, and rays				C		4.G.1
Recognize symmetric figures and lines of symmetry, draw lines of symmetry				CSU		4.G.3
Complete a symmetric figure with respect to a given line of symmetry				CSU		
Classify 2-D figures based on presence or absence of parallel or perpendicular lines, or angles of a specified size				CSU		4.G.2
Recognize and name parallelograms				CSU		
Recognize and name trapezoids, using the exclusive definition of a trapezoid				SU		
Recognize and name trapezoids, using the inclusive definition of a trapezoid				C		4.G.2
Recognize and name right triangles			S	CSU		4.G.2
Understand that attributes belonging to a category of 2-dimensional figures belong to all subcategories of that category				CS	CSU	5.G.3
Classify 2-D figures in a hierarchy based on properties				CS	CSU	5.G.3
Recognize and name isosceles and equilateral triangles				CSU	CSU	
Recognize and name scalene triangles			CS	CS		
Identify and name angles on a straight line, angles at a point, vertically opposite angles					CSU	
Recognize that angles on a straight line add to 180° , angles around a point add to 360° , and vertically opposite angles are equal					CSU	
Find unknown angles involving angles on a straight line, angles at a point, and vertically opposite angles					CSU	
State and find unknown angles involving the properties of parallelograms, rhombuses, and trapezoids					CSU	
Recognize and use the property that the angle sum of a triangle is 180°					CSU	

	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	CCSS
State and find unknown angles using angle properties of isosceles triangles, equilateral triangles, and right triangles					CSU	
Draw squares, rectangles, parallelograms and triangles given dimensions (side lengths and angles)					SU	
Identify congruent figure				S		
Recognize shapes that can tessellate, identify the shape in a tessellation, draw a tessellation on dot paper				S	U	
Recognize figures that have rotational symmetry				S		
Identify prisms, pyramids, cylinders, cones, and spheres		S	S			
Identify cylinders			S	S		
Identify rectangular and triangular prisms and pyramids				S		
Identify nets of prisms and pyramids, or solids from nets				S		
Coordinate Graphs						
Understand the coordinate plane, x and y axis and coordinates, and plot ordered pairs (first quadrant)				S	CS	5.G.1
Generate numerical patterns using two given rules, identify relationships between corresponding terms, create ordered pairs, and graph on a coordinate plane				S	CS	5.OA.3
Find the length of horizontal and vertical lines on the coordinate grid				S	CS	
Data and Statistics						
Organize, represent, and interpret data in a picture graph with up to 3 categories	CSU					1.MD.4
Organize, represent, and interpret data in a picture graph with up to 4 categories	CSU	CSU				2.MD.10
Organize, represent, and interpret data in a bar graph with up to 4 categories and single unit scale		CSU				2.MD.10
Repeatedly measure lengths of objects to the nearest whole units and plot the data on a line plot		C				2.MD.9
Organize, represent, and interpret data in picture graphs with a scale representation		CSU	CS			3.MD.3
Organize, represent, and interpret data in a bar graph with a scaled axis		CS	CSU			3.MD.3
Generate measurement data by measuring lengths to the nearest half or fourth of an inch and record the data in a line plot			C			3.MD.4
Make a line plot to display a data set of measurements in fractions ($\frac{1}{2}$, $\frac{1}{4}$, or $\frac{1}{8}$)				C		4.MD.4

	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	CCSS
Solve problems involving addition or subtraction of fractions using information in line plots.				C		4.MD.4
Collect, organize, and present data in line plots			CS	CS		
Solve word problems using data presented in bar graphs and tables				CSU		
Make a line plot to display a data set of measurements in fractions ($\frac{1}{2}$, $\frac{1}{4}$, or $\frac{1}{8}$). Use operations on fractions to solve problems involving information in the line plot, such as finding the average					C	5.MD.2
Graph points on a coordinate plane and interpret values in context of real-world and mathematical situation					CS	5.G.2
Read and interpret line graphs				U	CS	
Collect, organize and display data in pie charts					S	
Collect, organize and display data in histograms					S	
Identify the mode and median of categorical data				S		
Understand, find, and compare mean, median, and mode of a set of data					S	
Identify whether outcomes are certain, likely, unlikely, or impossible			S			
Record the possible outcomes for a simple event and systematically keep track of the outcome when repeated			S			
Summarize and display results of simple probability experiments, use the results to predict future events			S			
Represent all possible outcomes for simple probability experiments				S		
Express all possible outcome of experimental probability situations verbally and numerically and as fraction				S		
Algebra						
Write simple equations involving related changes in quantities (e.g. $y = 3x + 5$) and solve for the dependent value when given the independent value					S	
Write and evaluate simple algebraic expressions in one variable using substitution					S	
Use the distributive property in expressions with variables					S	
Simplify algebraic expressions in one variable					S	
Solve problems involving simple linear functions with whole numbers values, write the equation, and graph the resulting ordered pairs				S	S	

	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	CCSS
Read and write numbers up to 100,000 in numerals, words, and expanded form, and recognize the place value of each digit				U		
Compare and order numbers within 100,000				U		
Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represent in the place to its right		CSU	CSU	CSU		4.NBT.1
Read and write whole numbers up to 1,000,000 using base-ten numerals, number names, and expanded form, and recognize the place value of each digit				CS		4.NBT.2
Compare two numbers within 1,000,000 based on place-values, using $>$, $<$, and $=$				CS		4.NBT.2
Round numbers within 1,000,000 to any place				CS		4.NBT.3
Read and write numbers up to 10,000,000 in numerals, words, and expanded form, and recognize the place value of each digit					U	
Round numbers within 10,000,000 to the nearest 1,000					U	
Read and write numbers within 1,000,000,000 in numerals, words, and expanded form and recognize the place value of each digit				S		
Complete or extend regular number patterns for numbers within 1,000,000,000				S		
Compare and order numbers within 100,000,000				S		
Round numbers within 100,000,000 to the closest million				S		
Read and write numbers within 1 trillion in numerals, words, and expanded form, and recognize the place value of each digit					CS	
Round numbers within 1 billion to any place					CS	
Generate a number pattern that follows a given rule		CSU	CSU	CSU		4.OA.5
Generate a shape pattern that follows a given rule				CS		4.OA.5
Identify apparent features of the pattern that were not evident in the rule itself				C		4.OA.5
List the factors of a whole number up to 100				CSU		4.OA.4
Recognize that a whole number is a multiple of its factors				CSU		4.OA.4
Identify composite and prime numbers within 100				CS		4.OA.4
Identify common factors of two numbers within 100				CSU		
Determine if a whole number is a multiple of a given 1-digit whole number				CSU		4.OA.4
Identify common multiples of two numbers within 100				CSU		
Find the greatest common factor of two numbers within 200					CS	
Find the lowest common multiple of two numbers within 10					CS	
Determine the prime factors of numbers within 100					CS	

	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	CCSS
Understand and interpret negative numbers, locate negative numbers on a number line, compare and order integers				S	S	
Recognize and extend regular number patterns that include negative numbers				S	S	
Find the numerical value of negative numbers				S		
Add and subtract integers				S		
Solve problems involving linear functions with integer values, write the equation and graph the resulting ordered pairs				S	S	

	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	CCSS
Understand the use of exponents and write numbers as products of prime numbers using exponents					CS	
State and use the order of operation				CS	CSU	
Carry out combined operations involving the 4 operations, including the use of parentheses (no nested parentheses)				CS	CSU	
Use parentheses, brackets, or braces in numerical expressions and evaluate the expressions (including nested)					C	5.OA.1
Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them				CS	CSU	5.OA.2
Explain patterns in the number of zeros of the product when multiplying a number by powers of 10				CSU	CSU	5.NBT.2
Use whole number exponents to denote powers of 10					C	5.NBT.2
Addition and Subtraction of Whole Numbers						
Illustrate the meaning of addition and subtraction	CSU					1.OA.1
Relate counting to addition and subtraction	CSU					1.OA.5
Write mathematical statements for given situations involving addition or subtraction	CSU					1.OA.1
Build addition bonds up to 9 + 9	CSU					
Understand the meaning of the equal sign	CSU					1.OA.7
Recognize the relationship between addition and subtraction	CSU					1.OA.4
Determine if equations involving addition and subtraction are true or false	C	C				1.OA.7
Apply properties of operations as strategies to add and subtract	CSU					1.OA.3
Add or subtract within 20 using various strategies including properties of operation	CSU					1.OA.6
Solve 1-step word problems on addition and subtraction within 20	CSU					1.OA.1
Solve word problems on addition of three 1-digit numbers	CSU					1.OA.2
Mentally add or subtract within 20 using various strategies	CSU	CSU				2.OA.2
Commit addition within 20 to memory	CSU	CSU				2.OA.2
Commit subtraction within 20 to memory	CSU	CSU				
Determine an unknown addend in an addition equation	CSU	CSU				
Determine the unknown number in addition and subtraction in any position in the equation	C	CSU				1.OA.8
Mentally find 10 more or 10 less than a number within 100	CSU					1.NBT.5

	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	CCSS
Add/subtract tens to/from a 2-digit number using various strategies	CSU					1.NBT.6
Add within 100 using concrete models or drawing and strategies based on place value concepts and properties of operations, and/or relationship between addition and subtraction	CSU					1.NBT.4
Fluently add/subtract 2-digit numbers using concrete models or drawing and strategies based on place-value concepts and properties of operations, and/or relationship between addition and subtraction	CSU	CSU				2.NBT.5
Subtract 2-digit numbers using strategies based on place-value, properties of operations, and relationship between addition and subtraction	CSU	CSU				2.NBT.5
Add up to four 2-digit numbers		CS				2.NBT.6
Add up to three 3-digit numbers within 1,000		CS				
Solve 1-step word problems on addition and subtraction within 100	CSU	CSU				2.OA.1
Add and subtract within 1,000 using concrete models and various strategies based on place-value		CSU				2.NBT.7
Explain why various addition and subtraction strategies work		C				2.NBT.9
Mentally add or subtract 10 or 100 to or from a number 100-900		CSU				2.NBT.8
Add and subtract within 1,000 using various strategies based on place-value and order of operation		CSU	CSU			3.NBT.2
Use estimation to verify the reasonableness of calculated results in addition and subtraction			CS	CSU	CSU	3.OA.8
Add and subtract multi-digit whole numbers using the standard algorithm		CSU		CSU		4.NBT.4
Mentally add or subtract 2-digit numbers	CSU	CSU	CSU			
Mentally subtract a number up to 2-digits from 100		CSU				
Mentally add/subtract 3-digit numbers with easy calculation		CSU				
Mentally subtract a number up to 3-digits from 1,000			CSU			
Mentally add/subtract a number close to 100		CSU	CSU			
Mentally add/ subtract a number close to 1,000			CSU			
Mentally add/subtract a number close to a multiple of 100 (e.g. 399)			CSU			
Mentally add/ subtract 4-digit numbers with easy calculation			CSU	CSU		
Mentally add/subtract a number close to a multiple of 1,000				CSU	CSU	

Multiplication and Division of Whole Numbers						
	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	CCSS
Illustrate the meaning of multiplication as repeated addition	CSU	CSU				
Multiply numbers whose product is not greater than 40, using repeated addition to find the answer	CSU					
Solve 1-step word problems with pictorial illustrations on multiplication	CSU					
Divide quantities not greater than 20 into equal sets given the number of objects in each set or the number of sets	CSU					
Determine whether a group of objects within 20 has an odd or even number of members		C				2.OA.3
Use addition to find the total number of objects in a rectangular array up to 5 rows and 5 columns	CSU	CSU				2.OA.4
Partition a rectangle into rows and columns of squares and count to find the total number		CSU				2.G.2
Count in steps of 5 and 10	CSU	CSU				2.NBT.2
Count in steps of 2, 3, and 4		CSU				
Build the multiplication tables of 2, 3, 4, 5 and 10 and commit to memory		CSU				
Relate division to multiplication with a missing factor		CSU	CSU			
Divide numbers within the multiplication tables for 2, 3, 4, 5, and 10 within 100		CSU	CSU			
Divide using drawings or objects to find a remainder for division by 2, 3, 4, or 5		CS				
Solve 1-step word problems involving the four operations		CSU				
Represent whole number of products as rectangular arrays		CSU	CSU			3.MD.7b
Interpret products of whole numbers as the total number of objects in equal groups	CSU	CSU	CSU			3.OA.1
Interpret whole number quotients of whole numbers as sharing into equal groups or making equal groups		CSU	CSU			3.OA.2
Solve word problems involving multiplication/division within 100 using drawings and equations with symbol for unknown		CSU	CSU			3.OA.3
Determine the unknown number in a multiplication or division equation		CSU	CSU			3.OA.4
Apply properties of operations as strategies to multiply and divide		CSU	CSU			3.OA.5
Understand division as unknown factor problems		CSU	CSU			3.OA.6
Multiply/divide within 100 using various strategies and properties of operation		CSU	CSU			3.OA.7
Build the multiplication tables up to 10 x 10 and commit to memory			CSU			3.OA.7
Recognize and extend regular linear patterns involving multiplication		CSU	CSU			3.OA.9
Solve up to 2-step word problems involving the four operations on whole numbers			CSU			3.OA.8

	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	CCSS
Write equations for word problem situations using a letter to stand for the unknown quantity			CS			3.OA.8
Use estimation to verify the reasonableness of calculated results in multiplication and division			CS	CSU	CSU	3.OA.8
Multiply tens within the range 10-90 by a 1-digit number			CSU			3.NBT.3
Interpret multiplication equation as a comparison (times as many)		CSU	CSU	CSU		4.OA.1
Distinguish additive comparison from multiplicative comparison		CSU	CSU	CSU		4.OA.2
Multiply a whole number within 1,000 by a 1-digit whole number using strategies based on place-value and properties of operations and illustrate using equations and arrays			CSU			
Multiply a whole number within 10,000 by a 1-digit whole number using strategies based on place-value and properties of operations and illustrate using equations				CSU		4.NBT.5
Multiply two 2-digit numbers, using strategies based on place-value and properties of operations and illustrate using equations				CSU		4.NBT.5
Illustrate multiplication of 10,000 by a 1-digit whole number and multiplication of two 2-digit numbers with arrays and/or area models				C		4.NBT.5
Multiply numbers within 10,000 by a 2-digit number			CSU			
Mentally multiply by a number up to one less than a multiple of 10 or 100 (e.g.29, 299)				S		
Identify odd and even numbers within 10,000			CSU			
Divide a whole number within 1,000 by a 1-digit whole number, using strategies based on place value, properties of operations, and relationship between multiplication and division and illustrate with equation			CSU			
Divide a number within 1,000 number by a 1-digit whole number using the standard algorithm			CSU			
Divide a number within 10,000 by a 1-digit whole number, using strategies based on place-value and properties of operations, and relationship between multiplication and division and illustrate with equations				CSU		4.NBT.6
Illustrate division of a whole number within 10,000 by a 1-digit whole number with arrays and/or area models				C		4.NBT.6
Divide a number within 10,000 number by a 1-digit whole number using the standard algorithm				CSU		

	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	CCSS
Multiply or divide to solve word problems involving multiplicative comparison (times as many) using drawings and equations with a symbol for the unknown number		CSU	CSU	CSU		4.OA.2
Solve multi-step word problems involving the 4 operations on whole numbers				CSU	CSU	4.OA.3
Represent word problems using equations with a letter standing for the unknown quantity				CS		4.OA.3
Assess the reasonableness of answers to multi-step word problems involving the four operations using mental computation and estimation				CSU		4.OA.3
Multiply multi-digit whole numbers using the standard algorithm				CSU	CSU	5.NBT.5
Find whole number quotients of whole numbers with up to 4-digit dividends and 2-digit divisors, using strategies base on place value, properties of operations, relationship between multiplication and division and illustrate using equations					CSU	5.NBT.6
Illustrate 4-digit by 2-digit division with whole number quotients using rectangular arrays and/or area models					C	5.NBT.6
Mentally multiply and divide by tens, hundreds and thousands					CSU	
Divide whole numbers up to 4 digits by whole numbers up to 2-digits, with whole number remainders, using the standard algorithm					CSU	
Mentally multiply and divide by tens, hundreds and thousands					CSU	
Mentally multiply by a number one less than a multiple of 10 or 100 (e.g. 29, 299)					CS	
Fractions						
Divide a shape into halves or fourths. Count the number of parts (2 or 4) in the whole	CSU					1.G.3
Partition shapes into up to 4 equal shares in different ways and use the words halves, thirds, etc.		CSU				2.G.3
Recognize, understand, and name unit fractions up to 1/12		CSU				
Compare and order unit fractions		CSU				
Recognize, interpret, and name fractions of a whole in shapes partitioned into up to 12 equal parts		CSU				
Partition shapes into parts with equal area and express the area as a unit fraction of the whole		CSU	CSU			3.G.2
Understand unit fractions and multiples of unit fraction		CSU	CSU			3.NF.1
Represent fractions with bar models		CSU	CSU			

	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	CCSS
Represent and understand fractions on number lines			C	SU		3.NF.2
Recognize and name equivalent fractions using number lines			C	S		3.NF.3a
Write equivalent fractions of a given fraction			CSU			3.NF.3b
Express whole numbers as a fraction and recognize fractions that are equivalent to whole numbers			C	CSU		3.NF.3c
Compare two fractions with the same numerator or denominator, and use the symbols ">", "<" and "="			CSU			3.NF.3d
Compare and order related fractions with denominators up to 12			CSU			
Use diagrams to explain equivalent fraction			CSU	CS		4.NF.1
Recognize and generate equivalent fraction			CSU	CS		4.NF.1
Express a fraction in simplest form			CSU	CS		
Compare two unrelated fractions of the same whole using >, <, and =				CSU		4.NF.2
Compare a fraction to benchmark fractions such as 1/2				C		4.NF.2
Express improper fractions as mixed numbers and vice versa				CSU		
Addition and Subtraction of Fractions						
Understand adding and subtracting fractions as joining and separating fractions of the same whole			CSU	CSU		4.NF.3a
Decompose a fraction into the sum of fractions with the same denominator in different ways				C		4.NF.3b
Add and subtract like fractions within a sum of 1			S	CSU		
Add and subtract related fractions within a sum of 1 and solve word problems				CSU		
Add and subtract mixed numbers with like fraction			C	SU		4.NF.3c
Solve word problems involving addition and subtraction of like fraction				CSU		4.NF.3d
Add and subtract fractions in fourths, halves, and eighths				CSU		4.MD.4
Express a fraction with a denominator of 10 as an equivalent fraction with denominator of 100, and add/subtract fractions with denominators of 10 or 100				CSU		4.NF.5
Add and subtract unlike fractions, including mixed numbers					CSU	5.NF.1
Solve word problems involving addition and subtraction of fractions using visual fraction models or equation				CSU	CSU	5.NF.2
Use benchmark fractions and number sense of fractions to estimate and assess reasonableness of answers involving addition and subtraction of fractions					C	5.NF.2

Multiplication and Division of Fractions						
	Gr 1	Gr 2	Gr 3	Gr 4	Gr 5	CCSS
Understand fractions as a multiple of unit fraction			CSU	CSU		4.NF.4a
Multiply fractions by a whole number using understanding of fractions as multiples of multiples of unit fractions				C	S	4.NF.4b
Solve word problems involving multiplication of fractions by a whole number using concepts of				C	S	4.NF.4c
Interpret a fraction as division of the numerator by the denominator and solve word problems involving division of whole numbers, expressing the quotient as a mixed number				CS	CSU	5.NF.3
Recognize and name a fraction of a set		S	S	CSU		
Find fraction of a set by interpreting $a/b \times q$ as $a \times q \div b$ (whole number answers)			S	CSU	CSU	5.NF.4a
Find fraction of a set by interpreting $a/b \times q$ as $a \times q \div b$ (including mixed number answers)				U	CSU	5.NF.4a
Solve word problems involving fractions, including fraction of a set				CSU	CSU	
Find the area of a rectangle with fractional side lengths by tiling it with unit squares of unit fractions and show that area is the same as would be found by multiplying the side lengths					C	5.NF.4b
Represent fraction product as rectangular areas					CSU	5.NF.4b
Interpret product of two proper fractions using visual models					CSU	
Compare the size of the product to the size of one factor, without multiplying					CSU	5.NF.5a
Explain why multiplying a number by a fraction greater than 1 results in a product greater than the given number					CSU	5.NF.5b
Explain why multiplying a number by a fraction smaller than 1 results in a product smaller than the given number					CSU	5.NF.5b
Relate fractions equivalence $a/b = (ma)/(mb)$ to multiplying by 1				CSU	CSU	5.NF.5b
Solve real world problems involving multiplication of fractions and mixed numbers using fraction models or equation					C	5.NF.6
Interpret division of a unit fraction by a whole number and find the quotient					CSU	5.NF.7a
Interpret division of a whole number by a unit fraction and find the quotient					CSU	5.NF.7b
Solve real world problems involving division of unit fractions by a whole number or whole number by a unit fraction using fraction models and equations					CSU	5.NF.7c
Divide a proper fraction by a whole number					CSU	