

Scope and Sequence for *Primary Mathematics*

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The symbols indicate where the topic is first introduced or specifically addressed.

S: Standards edition U: U.S. edition

| | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
|---|-----|-----|-----|----|----|----|----|----|----|----|----|----|
| Whole Numbers | | | | | | | | | | | | |
| Understand and use ordinal numbers to describe position. | S U | | | | | | | | | | | |
| Count objects in a set, read and write numerals to 10. | S U | | | | | | | | | | | |
| Compare two or more sets of objects up to 10 and identify which set is equal to, more than, or less than the other. | S U | | | | | | | | | | | |
| Compare two sets of objects up to 10 and determine how many more or less are in one set than the other. | S U | | | | | | | | | | | |
| Count and identify 1 more than or 1 less than a number within 10. | S U | | | | | | | | | | | |
| Count and identify 1 more than or 1 less than a number within 30. | S U | | | | | | | | | | | |
| Understand number order and know that larger numbers describe sets with more objects in them than smaller numbers. | S U | | | | | | | | | | | |
| Count, read, and write whole numbers to 20. | S U | | | | | | | | | | | |
| Compare numbers within 20. | S U | S U | | | | | | | | | | |
| Use place-value models to represent numbers to 100. | | S U | | | | | | | | | | |
| Read, write in words, standard, and expanded notation, and identify place values of digits for numbers within 100. | | S U | | | | | | | | | | |
| Count and identify 1 more than, 1 less than, 10 more than, 10 less than a number within 100. | | S U | | | | | | | | | | |
| Compare numbers within 100 and use the symbols $<$, $+$, $>$. | | S | U | | | | | | | | | |
| Make reasonable estimates when comparing numbers and sets of objects within 100. | | S | | | | | | | | | | |
| Describe and extend regular number patterns within 100, including counting by 2's and 20's. | | S U | | | | | | | | | | |
| Use place-value models to represent numbers to 1000. | | | S U | | | | | | | | | |

| | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
|---|----|----|-----|----|-----|----|-----|----|----|----|----|----|
| Read, write in words, standard, and expanded notation, identify place values of digits, and compare and order numbers within 1000. | | | S U | | | | | | | | | |
| Describe and extend regular number patterns within 1000. | | | S U | | | | | | | | | |
| Compare numbers within 1000 and use the symbols $<$, $+$, $>$. | | | S U | | | | | | | | | |
| Use place-value models to represent numbers to 10,000. | | | | | S U | | | | | | | |
| Read, write in words, standard, and expanded notation, identify place values of digits, and compare and order numbers within 10,000. | | | | | S U | | | | | | | |
| Count on and back in steps of 1, 10, 100, and 1000 and complete or extend regular number patterns within 10,000. | | | | | S U | | | | | | | |
| Round numbers within 100,000 to the nearest 10 or 100 | | | | | S | | U | | | | | |
| Round numbers within 10,000 to the nearest 10, 100, or 1000. | | | | | S | | | U | | | | |
| Use place-value models to represent numbers to 100,000. | | | | | | | S U | | | | | |
| Read, write in words, standard, and expanded notation, identify place values of digits, and compare and order numbers within 100,000. | | | | | | | S U | | | | | |
| Complete or extend regular number patterns for numbers within 100,000. | | | | | | | S U | | | | | |
| Use place-value models to represent numbers to 1,000,000. | | | | | | | S | | U | | | |
| Use place-value models to represent numbers to 1,000,000,000. | | | | | | | S | | | | | |
| Read, write in words, standard, and expanded notation, identify place values of digits, and compare and order numbers within 1,000,000,000. | | | | | | | S | | | | | |
| Complete or extend regular number patterns for numbers within 1,000,000,000. | | | | | | | S | | | | | |
| Round numbers within 1,000,000,000 to the nearest 10, 100 or 1000 | | | | | | | S | | | | | |
| Read, write in words, standard, and expanded notation, and identify place values of digits and round numbers in the billions. | | | | | | | | | S | | | |
| Round large numbers to the nearest 10, 100, 1000, 10,000, or 100,000. | | | | | | | | | S | | | |

| | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
|---|-----|-----|-----|-----|-----|----|-----|----|-----|----|----|----|
| Addition and Subtraction of Whole Numbers | | | | | | | | | | | | |
| Understand number bonds and part-whole concept. | S U | | | | | | | | | | | |
| Understand the meaning of addition (missing whole, putting together, counting on, and simple addition stories). | S U | | S U | | | | | | | | | |
| Understand the meaning of subtraction (missing part, taking away, counting back, and simple subtraction stories). | S U | | S U | | | | | | | | | |
| Recognize when an estimate is reasonable. | | | | | | | | | | | | |
| Add/Subtract numbers within 20. | S U | | | | | | | | | | | |
| Use inverse relationship between addition and subtraction. | S U | | S U | S U | | | | | | | | |
| Learn addition and subtraction facts within 20. | S U | | | | | | | | | | | |
| Compare numbers by using subtraction to find the difference. | | S U | S U | | | | | | | | | |
| Add/Subtract numbers within 100. | | S U | | | | | | | | | | |
| Count by 2's, and 5's within 100. | | | | | | | | | | | | |
| Count by 10's within 100. | | S U | | | | | | | | | | |
| Find the sum of three 1-digit numbers. | | S U | | | | | | | | | | |
| Add/Subtract numbers within 1000. | | | S U | | | | | | | | | |
| Add/Subtract numbers within 10,000. | | | | | S U | | S U | | | | | |
| Use estimation to verify the reasonableness of calculated results in addition and subtraction, check subtraction problems using addition. | | | | | S | | S U | | S U | | | |
| Determine whether an estimate is sufficient for a specific problem situation. | | | | | | | S U | | | | | |
| Add/subtract numbers in the billions. | | | | | | | | | S | | | |
| Multiplication and Division of Whole Numbers | | | | | | | | | | | | |
| Use repeated addition and arrays to solve multiplication problems within 40. | | S U | S U | | | | | | | | | |
| Use sharing and grouping to divide. | | S U | S U | | | | | | | | | |
| Relate division to multiplication. | | | S U | S U | S U | | | | | | | |
| Recognize and extend regular linear patterns. | | S U | S U | S U | S U | | | | | | | |
| Multiply/divide by 2's and 3's. | | | S U | | | | | | | | | |
| Learn multiplication/division facts for 2's and 3's. | | | S U | | | | | | | | | |
| Multiply/divide by 4's, 5's, and 10's. | | | | S U | | | | | | | | |
| Learn multiplication/division facts for 4's, 5's, and 10's. | | | | S U | | | | | | | | |
| Use repeated subtraction to divide and find the remainder. | | | | S | | | | | | | | |

| | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
|--|-----|-----|-----|-----|-----|----|-----|----|-----|----|----|----|
| Understand quotient and remainder. | | | | | S U | | | | | | | |
| Understand the properties of 0 and 1 in multiplication and division. | | | | | S U | | | | | | | |
| Multiply/Divide by 6's, 7's, 8's, and 9's. | | | | | S U | | | | | | | |
| Learn multiplication/division facts for 6's, 7's, 8's, and 9's. | | | | | S U | | | | | | | |
| Multiply numbers within 1000 by a 1-digit number. | | | | | S U | | | | | | | |
| Multiply numbers within 10,000 by a 1-digit number. | | | | | S | | S U | | | | | |
| Divide numbers within 1000 by a 1-digit number, including situations where there is a remainder. | | | | | S U | | | | | | | |
| Divide numbers within 10,000 by a 1-digit number, including situations where there is a remainder. | | | | | S | | S U | | | | | |
| Multiply numbers within 10,000 by a 2-digit number. | | | | | | | S U | | S U | | | |
| Divide numbers within 10,000 by a 2-digit number. | | | | | | | | | S U | | | |
| Multiply/divide numbers within 1,000,000 by tens, hundreds, or thousands. | | | | | | | | | S | | | |
| Use estimation to verify the reasonableness of calculated results in multiplication and division problems. | | | | | S | | S U | | S U | | | |
| Check division problems using multiplication. | | | | | S | | S | | S | | | |
| Find the factors and common factors of whole numbers within 100. | | | | | | | S U | | S U | | | |
| Find the greatest common factor of up to 3 numbers within 100. | | | | | | | | | S | | | |
| Identify prime numbers. | | | | | | | S | | S | | | |
| Determine the prime factors of numbers within 100 and write the numbers as products of prime numbers, using exponents. | | | | | | | | | S | | | |
| Find multiples and common multiples of whole numbers within 100. | | | | | | | S U | | S U | | | |
| Find the lowest common multiple of up to 3 numbers within 100. | | | | | | | | | S | | | |
| Use divisibility rules for 2, 3, 5, 6, 9, and 10. | | | | | | | S U | | S | | | |
| Use order of operations to solve mathematical expressions with or without parentheses. | | | | | | | S | | S U | | | |
| Understand the distributive property. | | | | | | | | | S | | | |
| Mental Math Strategies | | | | | | | | | | | | |
| Use the commutative and associative properties to perform mental calculations and check results. | S U | S U | S U | S U | S U | | S U | | S U | | | |

| | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|
| Use the distributive property to perform mental calculations and check results. | | | | | S U | | S U | | S U | | | |
| Add 1-digit numbers involving renaming (e.g. $7 + 5$) by making a ten. | S U | | | | | | | | | | | |
| Subtract 1-digit numbers involving renaming (e.g. $14 - 8$) by subtracting from a ten. | S U | | | | | | | | | | | |
| Add/Subtract numbers within 100. | | S U | S U | S U | S U | | | | | | | |
| Add/Subtract 1's, 10's, or 100's to numbers within 1000. | | | S U | S U | S | U | | | | | | |
| Subtract from 100. | | | | S U | | | | | | | | |
| Subtract from 1000. | | | | | | S U | S | | | | | |
| Add/Subtract a number close to 100 (e.g. 98). | | | | S U | S | | | | | | | |
| Add/subtract a number close to 1000 (e.g. 998). | | | | | | | S | | | | | |
| Add/subtract a number close to a multiple of 100 (e.g. 498). | | | | | | | | | S | | | |
| Add and subtract money in compound units (dollars and cents) when the cents are multiples of 5 or close to \$1.00. | | | | S U | U | S | | | | | | |
| Add/Subtract measurements in compound units. | | | | | | S U | | | | | | |
| Add/Subtract tenths, hundredths, or thousandths to or from decimal numbers. | | | | | | | | S U | | | | |
| Multiply and divide tens, hundreds, and thousands by a 1-digit number. | | | | | S U | | | | | | | |
| Multiply by 99 or by 25. | | | | | | | S | | S | | | |
| Multiply 10's by 10's or 100's. | | | | | | | S U | | | | | |
| Multiply by a number one less than a multiple of 10 or 100 (e.g. 49, 499). | | | | | | | | | S | | | |
| Fractions | | | | | | | | | | | | |
| Recognize and name halves and fourths. | | S U | | S U | | | | | | | | |
| Recognize, write, name, and illustrate fractions of a whole (denominators 1-12). | | | | S U | | | | | | | | |
| Find the fraction with the same denominator to make a whole with another fraction. | | | | S U | | | | | | | | |
| Compare and order unit fractions. | | | | S U | | | | | | | | |
| Compare and order fractions with the same denominator or with the same numerator. | | | | | | S U | | | | | | |
| Find equivalent fractions and simplest form of a fraction. | | | | | | S U | S | | | | | |
| Compare and order fractions with different denominators. | | | | | | S U | S | | S | | S | |
| Recognize and name the fraction of a set. | | | | S | | S U | | | | | | |

| | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
|--|----|-----|----|-----|----|-----|-----|----|-----|----|----|----|
| Find the value given the fraction of a set, using objects or drawings. | | | | S | | S U | | | | | | |
| Find the fraction of a set where the answer is a whole number. | | | | | | S U | S U | | | | | |
| Find the fraction of a set where the answer is a whole number or a mixed number. | | | | | | | U | | SU | | S | U |
| Find coin amounts as a fraction of a dollar. | | | | | | S | | SU | | | | |
| Find fraction of a set for measurements (e.g. 10 minutes as a fraction of one hour). | | | | | | | S U | | S U | | | |
| Add/Subtract like fractions. | | | | | | S | U | | | | | |
| Add/Subtract related fractions. | | | | | | | S U | | | | S | |
| Add/Subtract unlike fractions. | | | | | | | | | S U | | S | |
| Understand mixed numbers and improper fractions, convert between them, locate them on a number line. | | | | | | | S U | | | | S | |
| Relate division to fractions. | | | | | | | S | | S U | | | |
| Add/subtract mixed numbers. | | | | | | | | | S U | | S | |
| Determine the least common multiple and the greatest common divisor of whole numbers and use them to solve problems involving fractions. | | | | | | | | | | | S | |
| Multiply a fraction by a whole number. | | | | | | | S U | | S U | | S | |
| Multiply a fraction by a fraction. | | | | | | | | | S U | | S | |
| Divide a fraction by a whole number. | | | | | | | | | S U | | S | U |
| Divide a whole number or a fraction by a fraction. | | | | | | | | | S | | S | U |
| Apply order of operations with or without parentheses to problems involving fractions. | | | | | | | | | | | | U |
| Money | | | | | | | | | | | | |
| Identify and know the value of coins and use the cent symbol. | | S U | | | | | | | | | | |
| Identify and know the value of bills and use the dollar symbol. | | S U | | | | | | | | | | |
| Count combinations of coins. | | S U | | | | | | | | | | |
| Count combinations of bills. | | S U | | | | | | | | | | |
| Count combinations of bills and coins to \$10.00. | | | | S U | | | | | | | | |
| Use decimal notation for money. | | | | S U | | | | | | | | |
| Use decimal notation to add and subtract money within \$10.00. | | | | S U | | | | | | | | |
| Use decimal notation to add and subtract money within \$100.00. | | | | | U | S | | | | | | |

| | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
|---|----|----|----|----|----|----|----|-----|----|-----|----|----|
| Multiply and divide money amounts in decimal notation. | | | | | | S | | | | | | |
| Decimals | | | | | | | | | | | | |
| Understand tenths, hundredths, thousandths, locate decimal numbers on a number line, compare decimal numbers. | | | | | | | | S U | | S U | | |
| Convert a decimal to a fraction and simplify. | | | | | | | | S U | | S U | | |
| Convert a fraction to a decimal number (denominators are a factor of 10, 100, or 1000). | | | | | | | | S U | | S U | | |
| Compare and order decimal numbers of up to 3 decimal places and fractions. | | | | | | | | S U | | S U | | |
| Round decimal numbers of up to 2 decimal places to the nearest whole number or to 1-decimal place. | | | | | | | | S U | | | | |
| Round decimal numbers up to 3 decimal places to the nearest whole number, to 1-decimal place, or to 2-decimal places. | | | | | | | | | | S U | | |
| Add/Subtract decimal numbers of up to 2 decimal places. | | | | | | | | S U | | | | |
| Add/Subtract decimal numbers of up to 3 decimal places. | | | | | | | | | | S U | | |
| Multiply/Divide decimal numbers of up to 2 decimal places by a whole number. | | | | | | | | S U | | S U | | |
| Find the quotient of a division problem correct to 1 decimal place. | | | | | | | | S U | | | | |
| Find the quotient of a division problem correct to 2-decimal places. | | | | | | | | | | S U | | |
| Convert fractions to decimals correct to 2-decimal places. | | | | | | | | | | S U | | |
| Multiply/Divide decimal number by tens, hundreds, or thousands. | | | | | | | | | | S U | | |
| Multiply/divide a decimal number by a 2-digit whole number. | | | | | | | | | | S U | | |
| Multiply/divide a whole number or a decimal by a decimal. | | | | | | | | | | S | | |
| Use estimation to verify the reasonableness of calculated results in problems involving decimal numbers. | | | | | | | | S U | | S U | | |
| Time | | | | | | | | | | | | |
| Name the days of the week. | | | | | | | | | | | | |
| Understand the calendar as a tool for measuring time. | | | | | | | | | | | | |

| | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
|--|-----|-----|-----|-----|----|-----|----|-----|-----|-----|----|----|
| Relate time to events. | | S U | | | | | | | | | | |
| Tell time to the half-hour (analog clock face). | | S U | | | | | | | | | | |
| Tell time to the nearest 5-minute mark (analog clock face). | | | | S U | | | | | | | | |
| Tell time to the minute (analog clock face). | | | | | | S U | | | | | | |
| Estimate reasonable time intervals. | | | | S | | | | | | | | |
| Find the duration of time intervals. | | | | S U | | S U | | | | | | |
| Find starting or ending times, given a time and the interval. | | | | S U | | S U | | | | | | |
| Know relationships of time (years, months, days, weeks, hours, and seconds). | | | | S U | | S U | | | | | | |
| Convert between of units of time. | | | | | | S U | | S U | S U | S U | | |
| Length, Weight, Mass, and Capacity | | | | | | | | | | | | |
| Compare and measure length and weight by making direct comparisons with reference objects. | S U | | | | | | | | | | | |
| Compare and measure capacity by making direct comparisons with reference objects. | S | | | | | | | | | | | |
| Compare and measure length, and weight using nonstandard units. | S U | | S | | | | | | | | | |
| Compare and measure capacity using nonstandard units. | S | | S U | | | | | | | | | |
| Measure and estimate length of objects in meters and centimeters, yards, feet, and inches. | | | S U | | | S U | | | | | | |
| Understand and estimate length in kilometers and miles. | | | | | | S U | | | | | | |
| Compare measurements made using different units. | | | S U | | | | | | | | | |
| Measure and estimate weight in kilograms, grams, pounds, and ounces. | | | S U | | | S U | | | | | | |
| Measure and estimate capacity in liters, cups, pints, quarts, half-gallon, and gallon. | | | | S U | | S U | | | | | | |
| Measure and estimate capacity in milliliters. | | | | | | S U | | | | | | |
| Convert units within a metric system using multiplication. | | | | | | S U | | | S U | | | |
| Add/subtract measurements in compound units. | | | | | | S U | | S | | | | |
| Multiply/divide measurements in compound units. | | | | | | | | S U | | | | |
| Convert fractional measurements to a different unit or a compound unit, within a measuring system. | | | | | | | | | S U | | | |
| Convert units involving decimals within a measuring system. | | | | | | | | | | S U | | |

| | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
|---|----|----|----|----|----|-----|-----|-----|-----|-----|----|-----|
| Perimeter, Area, and Volume | | | | | | | | | | | | |
| Find the perimeter of polygons. | | | | | | S U | | | | | | |
| Find the area of shapes by covering them with unit squares or by counting squares. | | | | U | | S U | S U | | S | | | |
| Understand and use units of area, such as square centimeter and square inch. | | | | | | S U | S U | | S | | | |
| Find the area, perimeter, and unknown sides of rectangles. | | | | | | | S U | | S | | | |
| Find the area and perimeter of composite figures made from squares and rectangles. | | | | | | | S U | | S | | | |
| Derive the formula for area of a triangle and find the area of triangles. | | | | | | | | | S U | | | |
| Derive the formula for area of a parallelogram and find the area of parallelograms. | | | | | | | | | S | | | |
| Find the surface area of cubes and rectangular prisms. | | | | | | | | | S | | | |
| Count unit cubes in 2-dimensional representations of 3-dimensional solids. | | | | | | S | | U | | | | |
| Find the volume of solid figures by counting cubic units. | | | | | | S | | S U | | | | |
| Understand and use units of volume, such as cubic centimeter and cubic inch. | | | | | | | | S U | | S U | | |
| Find the volume of rectangular prisms. | | | | | | | | S U | | S U | | S |
| Find the side of a rectangular prism given the volume and two sides or area of one side. | | | | | | | | | | S U | | |
| Understand the relationship between cubic centimeters, milliliters, and liters. | | | | | | | | S U | | S U | | |
| Solve problems involving the change in height of liquids and volume of liquids in rectangular tanks, including rate problems. | | | | | | | | | | S U | | |
| Find the volume of solids by displacement. | | | | | | | | | | U | | |
| Find the volume of triangular prisms and cylinders. | | | | | | | | | | | | S |
| Find the volume of composite figures involving prisms and cylinders. | | | | | | | | | | | | S |
| Solve multistep problems involving the volume of liquids and solids and displacement of liquids. | | | | | | | | | | | | U |
| Identify the radius and diameter of a circle, find one given the other. | | | | | | | S | | | | | S U |
| Derive the formula for circumference of a circle and find circumference when given the radius or diameter. | | | | | | | | | | | | S U |

| | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
|---|-----|----|----|-----|----|-----|-----|----|----|-----|----|-----|
| Derive the formula for area of a circle and find area when given the radius or diameter. | | | | | | | | | | | | S U |
| Find the perimeter and area of compound figures involving squares, rectangles, triangles, and half-circles or quarter circles. | | | | | | | | | | | | S U |
| Geometry | | | | | | | | | | | | |
| Give and follow directions about location. | S | | | | | | | | | | | |
| Arrange and describe objects in space by proximity, position, and direction. | S | | | | | | | | | | | |
| Identify, describe, and categorize common 2-dimensional shapes, including the faces of 3-dimensional objects. | S U | | | S U | | | | | | | | |
| Identify common 2-dimensional shapes within compound shapes, combine shapes to form common shapes. | S U | | | S U | | | | | | | | |
| Describe and classify common 3-dimensional shapes according to number and shape of faces, edges, and vertices. | | | | S U | | S | S | | | | | U |
| Describe and extend repeating patterns involving color and shapes. | S U | | | S U | | | | | | | | |
| Describe and extend repeating patterns involving combination of shapes (compound shapes). | | | | S U | | | | | | | | |
| Identify common 3-dimensional shapes within compound shapes. | | | | | | S U | | | | | | |
| Identify intersecting and parallel lines. | | | | | | S | | | | | | |
| Identify and describe polygons. | | | | | | S | | | | | | |
| Identify attributes of triangles and quadrilaterals. | | | | | | S | S | U | | S U | | |
| Identify right angles and compare angles to right angles. | | | | | | S U | | | | | | |
| Identify acute, obtuse, and right angles and relate 90° , 180° , 270° , and 360° with quarter, half, three-quarter, and whole turn. | | | | | | | S U | | | | | S |
| Measure and construct angles. | | | | | | | S U | | | S U | | |
| Identify perpendicular and parallel lines. | | | | | | | S U | | | | | |
| Name different types of triangles and quadrilaterals. | | | | | | | S | U | | | | |
| Find the lengths of unknown sides given the length of other sides or the perimeter of triangles and quadrilaterals. | | | | | | | S | | | | | |
| Identify angles as vertical, adjacent, complementary, or supplementary and provide descriptions of these terms. | | | | | | | | | | | | S |

| | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
|---|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|
| Find unknown angles in figures based on identifying vertical, adjacent, complementary, or supplementary angles. | | | | | | | | | | S U | | S U |
| Know and use angle properties of intersecting lines, triangles, parallelograms, rhombuses, and trapezoids to solve problems involving finding unknown angles. | | | | | | | | | | S U | | S U |
| Construct triangles, parallelograms, and rhombuses with specified angles. | | | | | | | | | | S U | | S |
| Construct trapezoids various quadrilaterals with specified angles and lengths of sides. | | | | | | | | | | | | S |
| Visualize, describe, and draw geometric solids. | | | | | | | S | | S | | U | |
| Identify nets of solids, or solids of nets. | | | | | | | S | | | | U | |
| Identify congruent figures | | | | | | | S | | | | | |
| Create tessellations. | | | | | | | S | | | U | | |
| Identify figures that have line symmetry. | | | | | | | | S U | | | | |
| Identify figures that have rotational symmetry. | | | | | | | | S | | | | |
| Understand the coordinate grid, locate points, and write ordered pairs (first quadrant). | | | | | | | | S | | S | | |
| Understand the coordinate grid, locate points, and write ordered pairs (all four quadrants). | | | | | | | | | | S | | |
| Find the length of horizontal and vertical lines on the coordinate grid. | | | | | | | | S | | | | |
| Percentage | | | | | | | | | | | | |
| Understand and use percent. | | | | | | | | | | S U | | |
| Find decimal and fraction equivalents for percentages. | | | | | | | | | | S U | | |
| Write fractions as percentages. | | | | | | | | | | S U | | |
| Solve problems involving percentage of a quantity. | | | | | | | | | | S U | S U | |
| Solve problems involving part of a whole as a percentage. | | | | | | | | | | | S U | |
| Solve problems involving one quantity as a percentage of another. | | | | | | | | | | | S U | |
| Solve percentage problems using a unitary method. | | | | | | | | | | | S U | |
| Calculate given percentages of quantities and solve problems involving discounts at sales, interest earned, percentage increase or decrease. | | | | | | | | | | S U | S U | |
| Ratio/Average/Rate/Speed | | | | | | | | | | | | |
| Use ratios to compare two quantities. | | | | | | | | | S U | | S | |
| Use ratios to compare three quantities. | | | | | | | | | S U | | S U | |

| | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
|---|-----|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|----|
| Find equivalent ratios and simplify ratios | | | | | | | | | S U | | S U | |
| Use ratios to solve problems. | | | | | | | | | S U | | S U | |
| Relate ratios to fraction of a quantity. | | | | | | | | | | | S U | |
| Solve problems involving changing ratios. | | | | | | | | | | | S U | |
| Relate ratios to proportions. | | | | | | | | | | | S U | |
| Solve problems involving proportions. | | | | | | | | | | | S U | |
| Understand rate as the measure of one quantity per unit value of another. | | | | | | | | | | S U | S U | |
| Solve problems involving rate. | | | | | | | | | | S U | S | |
| Use a unitary approach to solve rate problems. | | | | | | | | | | S U | S | |
| Solve discontinuous rate problems involving time. | | | | | | | | | | S U | S | |
| Understand and use speed and average speed to solve problems. | | | | | | | | | | | S U | |
| Word Problems | | | | | | | | | | | | |
| Make addition/subtraction stories from problem situations. | S U | | | | | | | | | | | |
| Write equations and solve simple addition/subtraction stories. | S U | S U | | | | | | | | | | |
| Solve simple multiplication/division problems using objects and pictures. | | S U | | | | | | | | | | |
| Write equations and solve one-step word problems involving addition/subtraction. | | S U | S U | S U | | | | | | | | |
| Write equations and solve one-step word problems involving multiplication/division. | | | S U | S U | | | | | | | | |
| Solve simple word problems involving fraction of a set. | | | | S U | | | | | | | | |
| Solve 2-step word problems which involve the four operations on whole numbers. | | | | | S U | | S U | | | | | |
| Solve 2-step word problems which involve fraction of a set. | | | | | | | S U | | | | | |
| Solve 2-step word problems which involve decimals and fractions. | | | | | | | | S U | | | | |
| Solve multi-step word problems involving all four operations on whole numbers, fractions, decimals, percentage, and ratios. | | | | | | | | | S U | S U | S U | U |
| Solve multi-step word problems involving average, rate, and percentage. | | | | | | | | | | S U | S U | U |
| Solve multi-step word problems involving speed and average speed. | | | | | | | | | | | S U | U |
| Solve challenging word problems. | | | | | | | | | | | | U |

| | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
|---|----|----|----|----|----|----|----|----|----|----|----|----|
| Data Analysis and Probability | | | | | | | | | | | | |
| Sort objects and data by common attributes. | S | U | | | | | | | | | | |
| Represent and compare data using picture graphs | | S | U | S | | | | | | | | |
| Represent and compare data bar graphs. | | S | | S | U | | U | | | | | |
| Represent and compare data using tally charts. | | S | | S | | | | | | | | |
| Collect, organize, and analyze data using tables and bar graphs. | | | | S | S | | U | S | | | | |
| Collect, organize, and analyze data using tally charts. | | | | S | S | | | S | | | | |
| Ask and solve questions related to data representation, including finding the range and mode. | | | | S | U | | U | S | | S | U | |
| Collect, organize, and analyze data using line plots. | | | | | S | | | S | | S | | |
| Collect, organize, and analyze data using line graphs. | | | | | | | | S | | S | U | |
| Collect, organize, and analyze data using coordinate graphs | | | | | | | | S | | S | | |
| Collect, organize and display data in pie charts. | | | | | | | | | | S | | U |
| Collect, organize and display data in histograms. | | | | | | | | | | S | | |
| Find the average of a set of data. | | | | | | | | | | S | U | |
| Find a data value given the average and the other values. | | | | | | | | | | S | U | |
| Identify the mode and median of categorical data. | | | | | | | | S | | | | |
| Understand, find, and compare mean, median, and mode of a set of data. | | | | | | | | | | S | | S |
| Find the range of a set of data. | | | | | | | | | | | | S |
| Understand how additional data added to data sets may affect measures of central tendency. | | | | | | | | | | | | S |
| Understand how the inclusion or exclusion of outliers affects measures of central tendency. | | | | | | | | | | | | S |
| Compare different samples of a population with the data from the entire population and identify situations in which it makes sense to use a sample. | | | | | | | | | | | | S |
| Identify different ways of selecting a sample and which method makes the sample more representative of the population. | | | | | | | | | | | | S |
| Know why a specific measure of central tendency provides the most useful information in a given context. | | | | | | | | | | | | S |
| Analyze data displays and identify data that represent sampling errors. | | | | | | | | | | | | S |

| | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
|--|----|----|----|----|----|----|----|----|----|----|----|----|
| Identify claims based on statistical data and, in simple cases, evaluate the validity of the claims. | | | | | | | | | | | | S |
| Identify ordered pairs of data from a graph. | | | | | | | | S | | S | | |
| Identify whether common events are certain, likely, unlikely, or impossible. | | | | | S | | | | | | | |
| Record the possible outcomes for a simple event and systematically keep track of the outcome when it is repeated many times. | | | | | 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 | | | | | S |
| Express all possible outcome of experimental probability situations verbally and numerically and as fractions. | | | | | | | S | | | | | S |
| Use data to estimate the probability of future events. | | | | | | | | | | | | S |
| Represent probabilities as ratios, proportions, decimals, and percentages. | | | | | | | | | | | | S |
| Find the probability of disjoint events and understand that the theoretical probability of disjoint events is the sum of the two individual probabilities. | | | | | | | | | | | | S |
| Find the probability of combined events and understand that the theoretical probability of combined events is the product of the two probabilities. | | | | | | | | | | | | S |
| Understand the difference between independent and dependent events. | | | | | | | | | | | | S |
| Algebra | | | | | | | | | | | | |
| Solve problems involving numeric equations or inequalities. | SU | SU | SU | | SU | | | | | | | |
| Select appropriate operational symbol to make an expression true. | SU | SU | SU | | SU | | | | | | | |
| Use boxes and other symbols to stand for unknown numbers in expressions and equations. | SU | | SU | | SU | | SU | | | | | |
| Use letters to stand for unknown numbers in equations and solve for the unknown numbers using properties of the four operations. | | | | | | | S | | S | S | S | |
| Represent unknown quantities with bar diagrams and solve word problems involving whole numbers using bar diagrams. | | | | | SU | SU | SU | SU | SU | | S | U |

| | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
|---|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|
| Use bar diagrams to solve word problems involving fractions. | | | | | | | S U | | S U | | S | U |
| Use bar diagrams to solve word problems involving decimals. | | | | | | | | S U | | S U | S | U |
| Use bar diagrams to solve word problems involving percentage. | | | | | | | | | | S U | S U | U |
| Use bar diagrams to solve word problems involving ratio. | | | | | | | | | S U | | S | U |
| Solve word problems involving the functional relationship between two quantities. | | | | | | | | S | S | S U | S | |
| Use and interpret formulas to answer questions about quantities and their relationships. | | | | | | | S U | S U | S U | S U | | |
| 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 | | S | S | |
| Write and evaluate simple algebraic expressions in one variable using substitution. | | | | | | | | | | S | S U | |
| Write and evaluate simple algebraic expressions for a given situation, using up to three variables. | | | | | | | | | | | S | |
| Use the distributive property in expressions with variables. | | | | | | | | | | S | | S |
| Simplify algebraic expressions in one variable. | | | | | | | | | | S | U | |
| Use variables in expressions describing geometric quantities. | | | | | | | | | | | S | S U |
| Solve simple algebraic equations in one variable. | | | | | | | | | | | S | S |
| Solve problems involving simple linear functions with whole numbers values, write the equation, and graph the resulting ordered pairs on a grid. | | | | | | | | S | | S | S | |
| Understand and interpret negative numbers, locate negative numbers on a number line, compare and order integers. | | | | | | | S | | | S | | |
| Compare and order positive and negative fractions, decimals, and mixed numbers and place them on a number line. | | | | | | | | | | | S | |
| Recognize and extend regular number patterns that include negative numbers. | | | | | | | S | | | | | |
| Find the numerical value of negative numbers. | | | | | | | | | | S | | |
| Add and subtract positive and negative integers. | | | | | | | | | | S | | S |
| Multiply and divide positive and negative integers. | | | | | | | | | | | | S |

| | 1A | 1B | 2A | 2B | 3A | 3B | 4A | 4B | 5A | 5B | 6A | 6B |
|--|----|----|----|----|----|----|----|----|----|----|----|----|
| Apply algebraic order of operations and the commutative, associative, and distributive properties to evaluate expressions that involve positive and negative integers. | | | | | | | | | | | | S |
| Solve problems involving linear functions with integer values, write the equation, and graph the resulting ordered pairs on a grid. | | | | | | | | | | S | S | S |