RISE
Scope and Sequence

Math Learning Objectives

NUMBER & QUANTITY	K	1	2	3	4	5	6	7	8
Demonstrate the ability to count to 20 by counting up to 20 dots and using dots to show the amount counted.	●								
Demonstrate counting up to 20 by identifying the numeral that describes the set.	●								
Demonstrate counting up to 20 by selecting the set of objects that matches a given number name.	●								
Demonstrate counting up to 20 by counting out 20 objects.	●								
Demonstrate the ability to read and write the numbers up to 20 by identifying the written numeral to show how many	●								
Demonstrate understanding of the number 0 as a count of no objects by matching numerals 0 to 5 with sets containing zero to five objects.	●								
Understand that each successive number name to 20 refers to a quantity that is one larger by using objects, dots, or counters to identify which number comes next.	●								
Demonstrate counting to 20 starting at any number by using objects to choose the numbers to count forward.	●								
Demonstrate understanding of number magnitude by using a number path to identify the number that comes before or after a given number.	●								
Understand relative magnitude by counting on a number path, comparing two numbers between 1 and 10, and determining which of the two numbers is greater.	●								
Demonstrate understanding of number magnitude by using a number line to compare numbers 1-10 and answer questions about number magnitude.	●								
Demonstrate understanding of number magnitude by using a number path to order numbers 1-10.	●								
Compare two groups of objects up to 10 by counting and determine if the numbers are the same or different.	●								
Demonstrate the ability to compare the number of objects in two groups by counting and will identify which group has more than, fewer than, or exactly five objects.	●								
Demonstrate the ability to compare the number of objects in two groups by counting and will identify which group has more than, fewer than, or exactly ten objects.	●								
Compose and decompose numbers 2-10 by using models	●								
Demonstrate knowledge of place value of numbers 11-19 by combining a set of tens and some ones and describing the result.	●								
Demonstrate knowledge of place value of numbers 11-19 by describing a set of objects in ten frames as 10 and a number of ones.	●								

Math Learning Objectives

NUMBER & QUANTITY	K	1	2	3	4	5	6	7	8
Count to 100 by counting by ones and identifying the next number.	●								
Count to 100 by counting by tens and identifying the next number.	●								
Count from 20 to 1 by using objects.	●								
Demonstrate understanding of counting up and down between 1 and 20 by identifying the next number to be named.	●								
Demonstrate knowledge of numbers up to 120 by identifying the next number.		●							
Demonstrate the ability to read and write numbers 1 to 120 by identifying the written numerals 1 to 120 and writing the numbers.		●							
Model numbers 11-19 by using a bundle of ten and some more.		●							
Model numbers 20-99 by using base ten blocks as visual models.		●							
Demonstrate understanding of place value in numbers 11-19 by combining a set of ten and some units into a number of units.		●							
Demonstrate understanding of place value by grouping numbers 11-99 as tens and units, into units and expressing the number as ones.		●							
Demonstrate understanding of place value in numbers 11-19 by decomposing 11-19 objects from a number of units into ten and some units.		●							
Demonstrate understanding of place value by grouping numbers 20-49 expressed as units, into tens and ones and expressing the number as tens and ones.		●							
Demonstrate understanding of place value by grouping numbers 50-99 into tens and units.		●							
Demonstrate understanding of place value by describing the value of each digit in numbers 1-99.		●							
Demonstrate understanding of whole number magnitude by indicating the number before and after a given number that is less than 100.		●							
Demonstrate understanding of number magnitude by comparing numbers 1-50 and identifying the number that is greater than or less than.		●							
Demonstrate understanding of number magnitude by comparing numbers 1-100 and selecting the correct symbol (<, >, or =) to place between the numbers.		●							
Demonstrate understanding of whole number magnitude by using a hundred chart to order numbers, and then choosing symbols (<, >, or =) to represent the correct order.		●							
Demonstrate understanding of whole number magnitude by placing up to three numbers less than 100 in the correct positions on a number path.		●							
Demonstrate understanding of ordinal position by identifying objects that are first through tenth in line.		●							
Skip count by tens to 100 from any multiple of 10 by using models.			●						

Math Learning Objectives

NUMBER & QUANTITY	K	1	2	3	4	5	6	7	8
Skip count by fives to 100 starting at a multiple of 5 by identifying missing numbers or following numbers in a pattern.			●						
Skip count by tens to 100, starting at any number, by identifying missing numbers in a pattern.			●						
Skip count by twos to 100 by using a model.			●						
Count to one dollar by using dimes.			●						
Count to one dollar by using nickels.			●						
Demonstrate the ability to read number names 1 to 100 by matching number names with written numerals and written numerals with number names.			●						
Demonstrate understanding of place value by identifying a bundle of ten tens as one hundred and multiples of one hundred as bundles of one hundred.			●						
Demonstrate understanding of place value by modeling numbers through 999 using representations of base-ten blocks.			●						
Demonstrate the ability to read expanded form of numbers from 101 to 999 by choosing or filling in the number of hundreds, tens, and ones in expanded form sentences.			●						
Demonstrate understanding of place value by identifying the number of hundreds, tens, and ones in a 3-digit number.			●						
Demonstrate understanding of place value by choosing or filling in a 3-digit numeral given the number of hundreds, tens, and ones the numeral is to represent.			●						
Demonstrate understanding of place value by identifying value and place value of digits in numbers 100-999.			●						
Demonstrate understanding of place value up to 999 by identifying numbers in standard form and word form.			●						
Demonstrate understanding of place value by regrouping numbers through 999 between hundreds, tens, and ones by creating and describing models using base-ten blocks.			●						
Demonstrate understanding of how to skip count by tens to 1,000 by identifying missing numbers in the pattern.			●						
Demonstrate understanding of how to skip count by fives to 1,000 by identifying missing numbers in the pattern.			●						
Describe patterns in ones and tens when counting within 1,000.			●						
Skip count by hundreds to 1,000 by identifying missing numbers in the pattern.			●						
Demonstrate understanding of whole number magnitude by indicating numbers occurring before, after, and between any given numbers less than 1,000.			●						
Demonstrate understanding of whole number magnitude by selecting the appropriate symbol to compare two whole numbers less than 1,000.			●						
Demonstrate understanding of whole number magnitude by ordering numbers less than 1,000 and placing the numbers in the correct positions on a number line.			●						
Demonstrate rounding by rounding two-digit numbers to the nearest ten.				●					

Math Learning Objectives

NUMBER & QUANTITY	K	1	2	3	4	5	6	7	8
Round three-digit numbers to the nearest ten and hundred.				●					
Demonstrate what it means for a whole to be divided into equal parts.				●					
Demonstrate understanding of unit fractions by identifying the visual representation given the unit fraction and identifying the unit fraction given the visual representation.				●					
Understand fractions with numerators greater than 1 by identifying the visual representation given the fraction and identifying the fraction given the visual representation.				●					
Recognize and generate fractions equal to one by using number lines for support.				●					
Demonstrate understanding of number line intervals by identifying fractional names for number lines or identifying intervals as fractional amounts.				●					
Understand unit fractions on a number line by determining the location on a number line given the fraction and identifying the fraction given a location on a number line.				●					
Understand fractions greater than 1 on a number line by determining the location on a number line given the fraction and identifying the fraction given a location on a number line.				●					
Find equivalent fractions by using models to select the correct answer, and by using number lines to identify examples.				●					
Recognize simple equivalent fractions by using visuals to support conclusions.				●					
Recognize fractions equal to a whole number by using number lines for support.				●					
Compare and order fractions.				●					
Understand place value of digits in numbers through 9,999 by identifying the place value or value of a digit in a number.					●				
Demonstrate knowledge of place value through 9,999 by identifying numbers in standard and word form.					●				
Understand place value through 9,999 by identifying numbers in expanded form.					●				
Understand place value through 99,999 by identifying the place value or value of a digit in a number.					●				
Understand place value through 99,999 by identifying numbers in standard, word, and expanded form.					●				
Understand place value in numbers through 999,999 by identifying the place and value of digits.					●				
Understand place value through 999,999 by identifying numbers in standard, word, and expanded form.					●				
Understand place value through 999,999 by comparing and ordering numbers.					●				
Demonstrate understanding of the relationship between the value of a digit in a number and the value of the same digit if moved one place to the left by correctly giving the positions, place values, and values of the digits in numbers and choosing the correct answer from a list.					●				
Use the rules for rounding to round numbers up to one million to any place.					●				
Demonstrate an understanding of improper fractions and mixed numbers by identifying diagrams and descriptions.					●				

Math Learning Objectives

NUMBER & QUANTITY	K	1	2	3	4	5	6	7	8
Show the evidence of an improper fraction and a mixed number by converting improper fractions to mixed numbers and mixed numbers to improper fractions.					●				
Demonstrate understanding of equivalent fractions by identifying equivalent fractions with denominators of 10 and 100.					●				
Add fractions with denominators of 10 and 100 by converting tenths to hundredths or hundredths to tenths.					●				
Demonstrate understanding of tenths and hundredths as fractions and decimals by identifying fractions as decimals and decimals as fractions.					●				
Identify factors and factor pairs by using models.					●				
Identify the factors of whole numbers 1-100 by decomposing numbers using factor pairs.					●				
Determine if a number is prime or composite by identifying whether it has factors other than itself and 1.					●				
Demonstrate understanding of multiplies by identifying and listing multiplies of whole numbers to 100.					●				
Learn and practice generating equivalent fractions using number lines and by multiplying or dividing.					●				
Recognize equivalent fractions by using multiplication and division.					●				
Compare two fractions with unlike denominators by using visual models.					●				
Use the benchmark fraction 1/2 to compare two fractions with unlike denominators by using the correct comparison symbol.					●				
Compare two fractions with unlike denominators by using the benchmark fractions equal to 1.					●				
Determine the common denominator by forming equivalent fractions.					●				
Compare two fractions with unlike denominators by using a common denominator.					●				
Compare fractions and decimal numbers in tenths by using symbols and/or visual models.					●				
Compare fractions and decimal numbers in hundredths by using symbols and/or visual models.					●				
Demonstrate understanding of fractions and decimals by ordering fractions and decimal numbers greater than or equal to one.					●				
Determine whether a whole number is divisible by 2, 5, or 10 by using divisibility rules for whole numbers and identifying the correct answer.					●				
Determine if a whole number is divisible by 3 or 9 by using divisibility rules for whole numbers and identifying the correct answer.					●				
Determine if a whole number is divisible by 6 by using divisibility rules for whole numbers and identifying the correct answer.					●				
Determine if a whole number is divisible by 4 or 8 by using divisibility rules for whole numbers and identifying the correct answer.					●				

Math Learning Objectives

NUMBER & QUANTITY	K	1	2	3	4	5	6	7	8
Demonstrate understanding of place value in multi-digit numbers by identifying numbers to the billion in standard and word form.						●			
Demonstrate understanding of place value with powers of ten by identifying a number with only one non-zero digit as a single digit multiplied by a power of ten.						●			
Demonstrate understanding of place value in multi-digit numbers by identifying numbers in expanded form with powers of ten.						●			
Understand that a digit in one place represents ten times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.						●			
Demonstrate understanding of decimals by identifying standard or word form for decimal numbers less than one, and greater than one, in tenths.						●			
Demonstrate understanding of decimals by identifying standard or word form for decimal numbers in hundredths.						●			
Demonstrate understanding of decimals by identifying standard or word form for decimal numbers in thousandths.						●			
Demonstrate understanding of decimal place value by identifying decimal numbers in expanded form and expanded form with powers of ten.						●			
Understand place value in decimal numbers by recognizing that a digit in one place represents ten times as much as it represents to its right and 1/10 to the left.						●			
Demonstrate understanding of decimals between 0 and 1 by using the symbols < and > to compare two decimal numbers written in tenths, hundredth, and thousandths.						●			
Demonstrate understanding of decimals by identifying equivalent decimal numbers.						●			
Identify the correct comparison and/or using the symbols <, =, and > to compare two decimal numbers written in tenths, hundredths, or thousandths.						●			
Demonstrate understanding of decimal numbers between 0 and 1 by identifying the correct order of three to five decimal numbers from least to greatest.						●			
Demonstrate an understanding of rounding decimals by rounding decimal numbers less than one and greater than one to the nearest whole number.						●			
Demonstrate an understanding of rounding decimals by rounding decimal numbers less than one and greater than one to the nearest tenth.						●			
Demonstrate understanding of rounding decimals by rounding decimal numbers to the nearest hundredth.						●			
Demonstrate an understanding of rounding decimals by rounding decimal numbers to any place.						●			
Interpret fractions as the division of the numerator by the denominator by using models and equations.						●			
Solve word problems involving division of whole numbers resulting in answers in the form of fractions or mixed numbers by using equations.						●			
Demonstrate an understanding of the relationships between real-world scenarios and integers.							●		

Math Learning Objectives

NUMBER & QUANTITY	K	1	2	3	4	5	6	7	8
Determine opposites of a given number using a number line by checking that two numbers are equal distances from zero.							●		
Demonstrate understanding of opposite numbers by interpreting opposites in real-world scenarios.							●		
Determine the absolute value of a number by interpreting the absolute value symbol and understanding that the symbol indicates the distance a given number is from zero.							●		
Demonstrate understanding of absolute value by comparing absolute values.							●		
Compare integers by selecting the appropriate symbol to compare two integers between -100 and 100							●		
Demonstrate understanding of absolute value by using absolute value to interpret and describe real-world scenarios.							●		
Compare integers by selecting the appropriate symbol to compare two integers between -100 and 100.							●		
Demonstrate understanding of relative position of integers on a number line by interpreting a symbolic statement of inequality involving integers as a statement of relative position on a number line.							●		
Demonstrate understanding of comparing integers by matching mathematical statements using the appropriate symbols to real-world contexts and by matching a real-world situation to mathematical statement involving a comparison of integers.							●		
Demonstrate understanding of percentages by writing a percentage as a fraction with a denominator of 100 and as a decimal.							●		
Demonstrate understanding of fractions and percentages by writing fractions less than one as percentages and identifying the correct percentage, given a fraction.							●		
Demonstrate understanding of decimals and percentages by writing decimal numbers less than one written in tenths or hundredths and greater than one as percentages and by writing percentages greater than or equal to 100% as a mixed number or a decimal number.							●		
Demonstrate knowledge of squares of numbers by determining the square of a given whole number.							●		
Demonstrate knowledge of squares of numbers by recognizing whether an array is a perfect square.							●		
Demonstrate knowledge of cubes of numbers by determining the cube of any whole number and by recognizing perfect cubes.							●		
Demonstrate understanding of the meaning of exponents by writing b^p in expanded form and writing the exponent form for repeated multiplication of a number.							●		
Demonstrate knowledge of exponents by evaluating exponents with whole number bases.							●		
Demonstrate knowledge of exponents by evaluating expressions in the form b^p where b is a number in decimal or fractional form and p is a whole number.							●		
Demonstrate knowledge of exponent and the order of operations by evaluating expressions in the form a + b^p and ab^p where p is a whole number.							●		

Math Learning Objectives

NUMBER & QUANTITY	K	1	2	3	4	5	6	7	8
Demonstrate knowledge of the powers of 10 by evaluating whole-number exponential expressions in the form 10^p where p is a whole number.							●		
Demonstrate knowledge of the special exponents 1 and 0 by evaluating x^0 and x^1 for all non-zero whole numbers.							●		
Demonstrate knowledge of prime factors by listing prime factorization using factor trees and exponents.							●		
Demonstrate knowledge of factors by determining the greatest common factor (GCF) of two numbers by using prime factorization.							●		
Determine the least common multiple (LCM) of two or more numbers by using prime factorization.							●		
Convert rational numbers written as common fractions to decimal numbers by using long division.								●	
Determine whether a rational number is terminating or repeating by using long division.								●	
Demonstrate understanding of approximating rational numbers by identifying the location of a point representing a rational number on a number line.								●	
Compare rational numbers by using the symbols for "greater than" and "less than".								●	
Demonstrate knowledge of square roots by evaluating the square root of a perfect square with a base of 1-12.									●
Demonstrate knowledge of cube roots by evaluating the cube root of a perfect cube.									●
Demonstrate knowledge of square roots by estimating square roots between the nearest two whole numbers.									●
Demonstrate knowledge of cube roots by estimating cube roots between the nearest two whole numbers.									●
Understand and apply the meaning of irrational numbers by determining numbers to be rational or irrational numbers.									●
Find the approximate value and location of irrational numbers on a number line to the nearest tenth by placing the number between two rational approximations.									●
Compare the values of irrational numbers by using signs of inequality.									●
Demonstrate the relationship between large whole numbers and powers of ten by multiplying single-digit numbers by a positive power of ten									●
Demonstrate knowledge of displaying large numbers in scientific notation and converting scientific notation to standard form by writing large numbers in scientific notation and expressing scientific notation in standard form.									●
Demonstrate knowledge of negative exponents by evaluating negative exponents with whole number bases.									●
Understand the relationship between very small numbers and powers of ten by multiplying single digit numbers by a power of ten with a negative exponent.									●
Demonstrate knowledge of displaying small numbers in scientific notation and converting scientific notation to standard form by writing small numbers in scientific notation and expressing scientific notation in standard form.									●
Demonstrate an understanding of estimating with scientific notation by writing an expression in scientific notation to describe a number in a word problem.									●

Math Learning Objectives

OPERATIONS	K	1	2	3	4	5	6	7	8
Demonstrate understanding of putting groups together by using models to tell how many in all.	●								
Demonstrate an understanding of putting groups together by using a plus sign and an equals sign in a modeled addition problem and tell how many in all.	●								
Find any number from 1 to 9 that makes 10 when added to the given number by using modeled problems and showing the answer in an equation.	●								
Demonstrate understanding of separating or taking apart groups by using models to tell how many are left.	●								
Demonstrate understanding of separating or taking apart groups by using a minus sign and equals sign in a modeled subtraction problem and tell how many are left.	●								
Demonstrate understanding of sums to 10 by using pictures and drawings to show addition problems.		●							
Show addition problems by using addition number sentences (equations) with sums to 10.		●							
Calculate sums to 10 by using vertical addition.		●							
Show sums of 10 in different ways by using models to identify the way to make a 10.		●							
Identify the missing addend of addition sentences with sums of 10 by using models of equations.		●							
Identify addition sentences to 10 as true or false by proving its validity through modeling and/or using models of the addition sentence.		●							
Relate counting to addition.		●							
Demonstrate understanding that the order in which two 1-digit numbers are added does not affect a sum (less than 20) by using a model and choosing the correct addends, sum, or addition sentence that demonstrates the addends in reverse order.		●							
Compute sums to 10 with zero as an addend by using objects to solve equations.		●							
Find sums to 20 by using models and counting on from the greater addend in the addition equation.		●							
Solve addition with sums to 10 by using a number line and choosing the correct addition sentence represented on the number line.		●							
Show counting on by 1, 2, or 3 to reach sums to 20 by using a number line to determine the answer.		●							
Calculate sums to 20 with doubles by using constructed models.		●							
Calculate sums to 20 using near doubles by using doubles-plus-one constructed models.		●							
Calculate sums between 10 and 20 with two 1-digit numbers using the making 10 strategy by using models to determine the answer.		●							
Find the sum of three 1-digit numbers by using make-a-10 or doubles strategy to solve equations.		●							
Calculate adding 10 to a two-digit number within 100 by first using concrete models to find a sum and then by finding a sum without using concrete models.		●							

Math Learning Objectives

OPERATIONS	K	1	2	3	4	5	6	7	8
Calculate adding tens to a group of tens to find a sum within 100 by using concrete models to represent the equation.		●							
Calculate the sum of a two-digit number and a one-digit number (where the sum of the ones is less than 10) by using concrete models and counting on by ones.		●							
Calculate the sum of a two-digit number and a group of tens by using concrete models and counting on by tens.		●							
Use an open number line to add two 2-digit numbers without regrouping.		●							
Calculate the sum of two-digit and one-digit numbers by using concrete models to organize addition in order to add ones and tens.		●							
Calculate the sum of two-digit and one-digit numbers by using a concrete model to show how a 10 was composed (regrouping) to solve the equation.		●							
Show subtraction from numbers to 10 by using drawings as models to represent the subtraction situation.		●							
Show subtraction from numbers to 10 by writing subtraction sentences.		●							
Calculate differences to subtraction problems within 10 by using vertical subtraction.		●							
Identify the missing number of a subtraction sentence within 10 by using constructed models of equations.		●							
Identify subtraction sentences of numbers within 10 as true or false by modeling and/or using models of the subtraction sentence to prove its validity.		●							
Subtract zero (0) and find the difference of zero (0) when subtracting all by modeling and/or using models of subtraction equations using numbers within 1 to 20 to show that taking away zero (0) will result in the same number and that the result of taking away all in a subtraction sentence results in zero.		●							
Use a number line to count on to subtract.		●							
Find differences within numbers to 20 by using models and counting back to solve a subtraction equation.		●							
Find differences in subtraction within 20 by counting back 1, 2, or 3 using a number line.		●							
Demonstrate the ability to solve a subtraction doubles fact by using the related doubles addition fact to find the difference.		●							
Mentally find 10 less than a given two-digit number by first using models that represent the given number and 10 less.		●							
Demonstrate subtracting multiples of 10 from multiples of 10 in the range of 10 to 90 by using models, and drawings, strategies based on place value.		●							
Demonstrate counting back multiples of 10 from multiples of 10 in the range of 10 to 90 by using a number line to count back.		●							
Find the difference when subtracting a group of 10s by using a related addition fact.		●							
Demonstrate understanding of the relationship between addition and subtraction by identifying related facts.			●						

Math Learning Objectives

OPERATIONS	K	1	2	3	4	5	6	7	8
Demonstrate understanding of the relationship between addition and subtraction by using a related addition fact to find the difference in subtraction.			●						
Demonstrate understanding of the relationship between addition and subtraction by using a related fact to find an unknown number.			●						
Use mental strategies to find sums and differences when adding and subtracting within 20 by completing addition and subtraction equations.			●						
Solve two-digit addition equations within 100 by taking apart the addends into tens and ones to find the sum.			●						
Solve two-digit plus one-digit addition equations within 100 by regrouping using concrete models to find the sum.			●						
Solve two-digit plus one-digit addition equations within 100 by regrouping when appropriate and using a place-value chart to find the sum.			●						
Use base-ten block representations of 2-digit numbers to find sums within 100.			●						
Solve 2-digit addition equations within 100 by regrouping when appropriate to find the sum.			●						
Adjust 2-digit addends to find sums within 100.			●						
Add three 2-digit numbers or four 2-digit numbers to find sums within 100.			●						
Add 3-digit numbers to find sums within 1000 by regrouping ones, regrouping tens, and adding hundreds when appropriate.			●						
Solve two-digit minus two-digit subtraction problems within 100 by regrouping tens as ones when appropriate.			●						
Solve two-digit minus one-digit subtraction within 100 by regrouping tens as ones using models or place-value charts to find the difference.			●						
Demonstrate the ability to find a difference within 1,000 by using models to subtract hundreds from a group of hundreds.			●						
Demonstrate the ability to find the difference when subtracting multiples of 100 from any number from 100 to 999 by using models.			●						
Demonstrate the ability to find the difference when subtracting multiples of 10 from any number from 100 to 999 by using models.			●						
Subtract two- digit numbers from three-digit numbers by using models to regroup hundreds to find the difference.			●						
Subtract two-digit numbers from three-digit numbers by using models to regroup tens to find the difference.			●						
Subtract two-digit numbers from three-digit numbers by regrouping, when appropriate, to find the difference.			●						
Decompose one number and count back to subtract a 3-digit number from a 3-digit number.			●						
Subtract three-digit numbers from three-digit numbers by regrouping, when appropriate, to find the difference.			●						
Subtract across zeros in a three-digit number by regrouping to find the difference.			●						

Math Learning Objectives

OPERATIONS	K	1	2	3	4	5	6	7	8
Add 100 to any three-digit number by finding the sum using mental math strategies.			●						
Add 10 to any three-digit number by finding the sum using mental math strategies.			●						
Subtract 10 or 100 from any 3-digit number by finding the difference using mental math strategies.			●						
Demonstrate the ability to solve a subtraction doubles fact by using the related doubles addition fact to find the difference.			●						
Demonstrate understanding of arrays by identifying rectangular arrangements that have an equal number of objects in each row.			●						
Skip count the number of objects in each row of an array to find the total number of objects.			●						
Demonstrate understanding of arrays by identifying the number of objects in each row and using repeated addition to find the sum.			●						
Demonstrate understanding of arrays by identifying and completing the repeated addition equation that describes the array.			●						
Use addition properties to add.				●					
Use partial sums to add.				●					
Solve addition problems involving 3-digit and 2-digit numbers by identifying the sum.				●					
Solve addition problems involving two 3-digit numbers by identifying the sum.				●					
Solve subtraction problems involving 3- and 2-digit numbers with and without regrouping by identifying the difference.				●					
Solve subtracting across zeros problems by identifying the difference.				●					
Solve addition and subtraction problems involving 3- and 2-digit numbers by identifying the sum or difference.				●					
Solve division equations with group size unknown by using models.				●					
Solve division equations with number of groups unknown using models.				●					
Solve division equations by using repeated subtraction to identify the quotient.				●					
Demonstrate understanding of fact families by identifying related multiplication and division facts.				●					
Solve division problems by relating them to multiplication factors.				●					
Solve division problems determining the unknown number.				●					
Demonstrate knowledge of multiplication and division facts by stating whether a multiplication or division number sentence is true or false.				●					
Solve multiplication facts involving factors 1, 2, 5, and 10 by identifying the product.				●					
Solve multiplication facts involving factors 3, 4, 6 and 8 by identifying the product.				●					

Math Learning Objectives

OPERATIONS	K	1	2	3	4	5	6	7	8
Solve multiplication facts involving the factor 7 and 9 by identifying the product.				●					
Complete a multiplication equation by identifying the missing factor.				●					
Demonstrate understanding of multiplication by identifying the context, the model, or the equation.				●					
Model multiplication by using repeated addition.				●					
Demonstrate understanding of arrays by identifying multiplication equations.				●					
Demonstrate understanding of the Commutative Property by identifying related facts and using related facts to multiply.				●					
Demonstrate understanding of the Associative Property by grouping the factors to multiply.				●					
Demonstrate understanding of the Distributive Property by regrouping factors to multiply.				●					
Solve problems involving multiplication of one-digit numbers by multiples of 10 by finding the product.				●					
Use partial sums to add multi-digit numbers.					●				
Find the sum of two multi-digit numbers by using the standard algorithm.					●				
Use place value to subtract multi-digit numbers.					●				
Find the difference of two multi-digit numbers by using the standard algorithm.					●				
Find the difference of two multi-digit numbers involving zeros by using the standard algorithm.					●				
Solve multi-step word problems involving addition and subtraction of multi-digit numbers.					●				
Multiply multiples of 10 by 1-digit numbers by using basic facts and patterns to find the product.					●				
Multiply a 2-digit number by a 1-digit number by using models to find the product.					●				
Multiply a 2-digit number by a 1-digit number by using partial products to find the product.					●				
multiply a 3-digit and 4-digit numbers by a 1-digit number by finding the product.					●				
Solve the multiplication of two 2-digit multiples of ten by finding the product.					●				
Estimate products of multi-digit factors by rounding and using compatible numbers.					●				
Use area models for multiplying two 2-digit numbers by using partial products.					●				
Solve the multiplication of two 2-digit numbers by identifying the correct product.					●				
Solve division problems with extended facts by finding the correct quotient.					●				
Use compatible numbers to estimate quotients.					●				
Divide 2-digit numbers by 1-digit numbers using models by finding the correct quotient.					●				
Divide 2-digit numbers by 1-digit numbers using models by finding the correct quotient with a remainder.					●				

Math Learning Objectives

OPERATIONS	K	1	2	3	4	5	6	7	8
Demonstrate understanding of dividing up to 4-digit numbers by 1-digit numbers by finding quotients without remainders and using area models.					●				
Demonstrate understanding of dividing 2-digit numbers by 1-digit numbers using partial quotients by finding the correct quotient.					●				
Demonstrate understanding of dividing up to 4-digit numbers by 1-digit numbers using partial quotients by finding the correct quotient.					●				
Divide two-digit numbers by one-digit numbers resulting in one-digit quotients with and without remainders by identifying the quotient.					●				
Divide two-digit numbers by one-digit numbers resulting in two-digit quotients with and without remainders by identifying the quotient.					●				
Divide four-digit numbers by one-digit numbers resulting in quotients with and without remainders and demonstrate understanding of zeros by identifying the quotient.					●				
Add unit fractions with like denominators by using models and identifying the sum.					●				
Decompose fractions in more than one way by writing them as sums of fractions with the same denominator.					●				
Add fractions with like denominators by using models and identifying the sum.					●				
Subtract fractions with like denominators by using models and identifying the difference.					●				
Add fractions with like denominators by using a computational algorithm.					●				
Add fractions with like denominators to find sums that require regrouping by using a computational algorithm.					●				
Solve problems involving subtraction of fractions with like denominators by using a computational algorithm.					●				
Add mixed numbers with like denominators by identifying (and/or regrouping) the sum.					●				
Subtract mixed numbers with like denominators without regrouping by identifying the difference.					●				
Use models to subtract mixed numbers with like denominators resulting in differences less than 1 by renaming the subtrahend or subtrahend and minuend, and identifying the difference.					●				
Use models to subtract mixed numbers with like denominators by renaming the subtrahend or subtrahend and minuend, and identifying and renaming the difference.					●				
Subtract mixed numbers with like denominators by renaming the subtrahend or subtrahend and minuend, and identifying and renaming the difference.					●				
Subtract mixed numbers with like denominators with and without renaming by identifying the difference.					●				
Interpret multiplication equations as comparisons by identifying comparison statements as multiplication equations.					●				
Solve comparison word problems by using equations and models.					●				

Math Learning Objectives

OPERATIONS	K	1	2	3	4	5	6	7	8
Multiply a unit fraction by a whole number by using models to find the product.					●				
Multiply a fraction by a whole number by using models to find the product.					●				
Compute to multiply a fraction by a whole number by identifying the product.					●				
Multiply mixed numbers by whole numbers using decomposition and improper fraction strategies.					●				
Estimate products of multi-digit factors.						●			
Use the standard algorithm to multiply a two-digit number and a multi-digit number by identifying the product.						●			
Use the standard algorithm to multiply two three-digit numbers by identifying the product.						●			
Use the standard algorithm to multiply two multi-digit numbers by identifying the product.						●			
Divide by multiples of 10 by finding the quotient.						●			
Divide 2- and 3- digit dividends by 2-digit divisors by finding the quotient.						●			
Divide 3- and 4- digit dividends by 2-digit divisors by finding the quotient.						●			
Demonstrate understanding of dividing multi-digit numbers by 1-digit divisors using partial quotients by identifying the quotient.						●			
Use rounding and compatible numbers to estimate quotients.						●			
Follow a step-by-step process to use the relationship between multiplication and division to determine the quotient of multi-digit numbers.						●			
Demonstrate understanding of dividing multi-digit numbers by 2-digit divisors using area models by identifying the quotient.						●			
Demonstrate understanding of dividing multi-digit numbers by 2-digit divisors using partial quotients by finding quotients with and without remainders.						●			
Estimate sums and differences with decimals.						●			
Add two decimal numbers by using models and finding the sum.						●			
Add two decimals by finding the sum.						●			
Add two decimals with a different number of decimal places by aligning the decimal points and finding the sum.						●			
Model the subtraction of two decimal numbers by using grids and identifying the difference.						●			
Subtract two decimal numbers with the same number of decimal places by identifying the difference.						●			
Subtract two decimal numbers less than one with different numbers of decimal places by identifying the difference.						●			
Subtract two decimal numbers greater than one with different numbers of decimal places by identifying the difference.						●			
Use decimal grids to add and subtract decimals to the tenths place and hundredths place.						●			

Math Learning Objectives

OPERATIONS	K	1	2	3	4	5	6	7	8
Add decimals using partial sums and subtract decimals using partial differences.						●			
Add or subtract fractions with unlike denominators by renaming one fraction as an equivalent fraction with a denominator to match the unchanged fraction.						●			
Add unlike fractions using models to rename both fractions and identify the sum.						●			
Subtract unlike fractions using models to rename both fractions and identify the difference.						●			
Add fractions with unlike denominators by renaming both fractions using the product of the denominators as a new denominator and finding the sum.						●			
Subtract fractions with unlike denominators by renaming both fractions using the product of the denominators as a new denominator and finding the difference.						●			
Add and subtract fractions with unlike denominators by using an algorithm to find the sum or difference.						●			
Add mixed numbers with unlike denominators by identifying and regrouping the sum.						●			
Subtract mixed numbers with unlike denominators, which require regrouping by finding the difference.						●			
Multiply decimals and whole numbers by using models and identifying the product.						●			
Use a computational algorithm to multiply decimals and whole numbers by identifying the product.						●			
Estimate products of decimals.						●			
Multiply two decimals by using models and identifying the product.						●			
Use a computational algorithm to multiply two decimals by identifying the product.						●			
Learn to use an area model to multiply decimals.						●			
Learn how to use patterns when multiplying decimals.						●			
Divide decimal numbers by whole numbers by using models and finding the quotient.						●			
Divide decimal numbers by whole numbers by using a computational method to find the quotient.						●			
Use compatible numbers and rounding to estimate quotients of decimals.						●			
Divide whole numbers by decimal numbers by using models or a computational method to find the quotient.						●			
Divide two decimal numbers by using models or a computational method and finding the quotient.						●			
Demonstrate understanding of powers of 10 by converting between powers of 10 and 10 written with whole-number exponents.						●			
Multiply numbers by powers of 10 by identifying the product.						●			
Divide a decimal number by a power of ten and identify patterns in the placement of the decimal point by identifying the quotient.						●			

Math Learning Objectives

OPERATIONS	K	1	2	3	4	5	6	7	8
Multiply a decimal number by a power of ten and find patterns in the placement of the decimal point by identifying the product.						●			
Multiply a whole number by a fraction by using models and identifying the product.						●			
Multiply a whole number by a fraction by identifying the product.						●			
Multiply two fractions by using models and identifying the product.						●			
Multiply two fractions by identifying the product.						●			
Interpret multiplication as scaling by predicting the size of the product based on the size of the fraction or mixed number factor.						●			
Multiply a mixed number by a whole number or fraction by identifying the product.						●			
Multiply mixed numbers by identifying the product.						●			
Divide a whole number by a unit fraction by using models and finding the quotient.						●			
Divide a unit fraction by a whole number by using models and finding the quotient.						●			
Solve word problems involving the division of whole numbers and unit fractions by identifying the correct equation and solving for the quotient.						●			
Understand the significance of parentheses by evaluating expressions.						●			
Show understanding of the order of operations by identifying the steps in expressions.						●			
Apply the order of operations by simplifying expressions.						●			
Construct numerical expressions for verbal statements by identifying the numerical equivalent of verbal expressions.						●			
Interpret numerical expressions by comparing numerical expressions without performing specific calculations.						●			
Demonstrate an understanding of adding multi-digit positive decimal numbers by identifying the sum.							●		
Demonstrate an understanding of subtracting multi-digit positive decimal numbers by identifying the difference.							●		
Demonstrate an understanding of multiplying two multi-digit positive decimal numbers by identifying the product.							●		
Demonstrate an understanding of dividing multi-digit decimal numbers by whole numbers by identifying the quotient.							●		
Demonstrate an understanding of dividing by multi-digit numbers by identifying the quotient.							●		
demonstrate an understanding of dividing multi-digit decimal numbers by decimal numbers by identifying the quotient.							●		
Represent the division of positive fractions by whole numbers and whole numbers by positive fractions by using models.							●		
Solve problems involving the division of fractions by using fraction models to find the correct quotient.							●		

Math Learning Objectives

OPERATIONS	K	1	2	3	4	5	6	7	8
Demonstrate understanding of division of positive fractions by determining the reciprocal of positive fractions and whole numbers, and using reciprocals to divide positive fractions and whole number by determining the correct quotient.							●		
Demonstrate understanding of using reciprocals to divide positive fractions and whole number by determining the correct quotient.							●		
Prepare for the division of positive fractions by determining the reciprocal of positive fractions and whole numbers.							●		
Find the number needed to complete an equation involving addition or multiplication by using the Commutative and Associative Properties.							●		
Simplify numerical expressions by using the Commutative and Associative Properties.							●		
Evaluate numerical expressions involving whole numbers by using the Distributive Property.							●		
Find a missing number by using the Distributive Property to complete equations involving addition and multiplication.							●		
Demonstrate understanding of the Distributive Property by writing the sum of two whole numbers from 1 to 100 in factored form.							●		
Simplify numerical expressions involving non-negative rational numbers by using the Distributive Property.							●		
Use number lines to model the addition of two integers by identifying the number sentences that represent models.								●	
Demonstrate understanding of integers and zero pairs by completing a number sentence after modeling the sum using counters.								●	
Use the rules for adding integers by indicating the correct sum.								●	
Use number lines to model the difference of two integers by identifying the number sentences that represent models.								●	
Demonstrate understanding of integers and zero pairs by completing a number sentence after modeling the difference using counters.								●	
Demonstrate understanding of integer subtraction by finding the difference between two integers.								●	
Use rules to add and subtract three or more integers by indicating the correct result of the computation.								●	
Demonstrate understanding of multiplication of two integers by choosing a matching number line model and equation.								●	
Use the rules for multiplying integers by identifying the product of two integers or by finding an expression with the given product.								●	
Use the rules for multiplying integers by identifying the correct product of three or more integers or by finding an expression with the given product.								●	
Use the rules for integers by identifying the correct quotient of an expression or by finding an expression with a given quotient.								●	
Demonstrate knowledge of multiplication and division by finding the value of three or more integers that are multiplied and divided.								●	

Math Learning Objectives

OPERATIONS	K	1	2	3	4	5	6	7	8
Interpret products and quotients of integers by selecting the correct expression for a situation and finding solutions.								●	
Add and subtract signed fractions with like and unlike denominators by applying the operation rules for signed numbers.								●	
Add three or more signed fractions with unlike denominator by indicating the correct result of the computation.								●	
Add and subtract signed mixed numbers by applying the operation rules for signed numbers.								●	
Multiply two or more signed fractions by using the rules for multiplying integers and the standard algorithm for multiplying fractions.								●	
Divide two signed fractions by using the reciprocal and the rules for dividing integers.								●	
Find the approximate products and quotients of mixed numbers by using estimation.								●	
Multiply expressions involving signed mixed numbers and multiply three or more fractions, mixed numbers, and/or integers by using the rules for multiplying integers and the standard algorithm for multiplying fractions.								●	
Divide positive mixed numbers by using the standard algorithm.								●	
Divide expressions involving signed mixed numbers by using the rules for multiplying integers and the standard algorithm.								●	
Add two or more signed decimal numbers by using the rules for adding integers and the standard algorithm for adding decimals.								●	
Subtract signed decimal numbers by using the rules for subtracting integers and the standard algorithm for subtracting decimal numbers.								●	
Multiply signed decimal numbers by using the standard algorithm and the rules for multiplying integers.								●	
Divide two signed decimal numbers by using the standard algorithm and the rules for dividing integers.								●	
Demonstrate understanding of the additive inverse by identifying the additive inverse of a rational number and use the Additive Identity property by evaluating expressions and identifying the additive identity in equations or expressions.								●	
Demonstrate understanding of the Additive Inverse, Additive Identity, Associative and Commutative Properties of Addition by identifying the properties used to generate equivalent expressions or using the properties to generate equivalent expressions.								●	
Determine the multiplicative inverses of given numbers and monomials by solving missing factor problems.								●	
Demonstrate understanding of the Multiplicative Property of Zero and the Multiplicative Identity Property by identifying expressions in which these properties can be used and by using these properties to evaluate expressions.								●	
Demonstrate understanding of multiplying exponential expressions with the same base by using patterns to generalize the Product of Powers Rule and use the Product of Powers Rule to multiply exponential expressions with like whole number bases.									●
Demonstrate understanding of the Product of Powers Rule by using the Product of Powers Rule to multiply exponential expressions with like rational number bases.									●

Math Learning Objectives

OPERATIONS	K	1	2	3	4	5	6	7	8
Demonstrate understanding of the Quotient of Powers Rule by using patterns to generalize the Quotient of Powers Rule and by using the Quotient of Powers Rule to divide exponential expressions with like whole number bases.									●
Demonstrate understanding of the Quotient of Powers Rule by using the Quotient of Powers Rule to divide exponential expressions with like rational number bases.									●
Demonstrate understanding of the Power of Powers Rule by using patterns to generalize the Power of Powers Rule and by using the Power of Powers Rule to raise exponential expressions with whole number bases to a power.									●
Demonstrate understanding of the Power of Powers Rule by using the Power of Powers Rule to raise exponential expressions with rational number bases to a power.									●
Demonstrate understanding of scientific notation by multiplying and dividing numbers written in scientific notation form with whole number and integer exponents.									●
Demonstrate understanding of scientific notation by adding and subtracting numbers written in scientific notation form with integer exponents.									●
Demonstrate understanding of scientific notation by comparing the value of expressions written in scientific notation.									●

Math Learning Objectives

ALGEBRAIC THINKING	K	1	2	3	4	5	6	7	8
Represent and solve an (addition) add-to word problem with result unknown, sum within 5, by using manipulatives and drawings.	●								
Represent and solve a take-from word problem with the result unknown, within 5, by using drawings and manipulatives.	●								
Represent and solve an (addition) add-to word problem with change unknown, sum within 5, by using manipulatives and drawings.	●								
Represent and solve a take-from word problem with change unknown, within 5, by using drawings and manipulatives.	●								
Represent and solve an add-to word problem with result unknown, sum within 10, by using manipulatives, drawings, and equations.		●							
Represent and solve a take-from word problem with result unknown, within 10, by using manipulatives, drawings, and equations.		●							
Represent and solve an add-to word problem with change unknown, sum within 10, by using manipulatives, drawings, and equations.		●							
Represent and solve a take-from word problem with change unknown, within 10, by using manipulatives, drawings, and equations.		●							
Represent and solve an add-to word problem with start unknown, sum within 10, by using manipulatives, drawings, and equations.		●							
Represent and solve a take-from word problem with start unknown, within 10, by using manipulatives, drawings, and equations.		●							
Represent and solve a put-together/take-apart word problem with total unknown, within 10, by using manipulatives, drawings, and equations.		●							
Represent and solve a put-together/take-apart word problem with addend unknown, within 10, by using manipulatives, drawings, and equations.		●							
Represent and solve a put-together/take-apart word problem with addends unknown, within 10, by using manipulatives, drawings, and equations.		●							
Represent and solve an addition word problem involving three whole numbers, sum within 20, by using manipulatives and drawings.		●							
Represent and solve an addition word problem involving three whole numbers, sum within 20, by using visual models and a number sentence that uses numbers, words, and a blank line for the unknown number.		●							
Represent and solve an addition word problem involving three whole numbers, sum within 20, by using visual models and a number sentence that uses numbers, symbols, and a blank line for the unknown number.		●							
Represent and solve an add-to word problem with result unknown, sum within 50, by using an equation with a symbol for the unknown number.			●						
Represent and solve a take- from word problem with result unknown, within 50, by using an equation with a symbol for the unknown number.			●						

Math Learning Objectives

ALGEBRAIC THINKING	K	1	2	3	4	5	6	7	8
Represent and solve an add-to word problem with change unknown, sum within 50, by using an equation with a symbol for the unknown number.			●						
Represent and solve a take-from word problem with change unknown, within 50, by using an equation with a symbol for the unknown number.			●						
Represent and solve an add-to word problem with start unknown, sum within 50, by using an equation with a symbol for the unknown number.			●						
Represent and solve a take-from word problem with start unknown, within 50, by using an equation with a symbol for the unknown number.			●						
Represent and solve a put-together/take-apart word problem with total unknown, within 50, using a box as the symbol for the unknown and then using an equation.			●						
Represent and solve a put- together/take-apart word problem with addend unknown, within 50, by using a box as the symbol for the unknown and then using an equation.			●						
Represent and solve a put- together/take-apart word problem with addends unknown (decomposition), within 50, by using a box as the symbol for the unknown number and then using an equation.			●						
Represent and solve a compare word problem with difference unknown, sum within 20, by using manipulatives, drawings, and equations.			●						
Represent and solve a compare word problem with bigger unknown, sum within 20, by using manipulatives, drawings, and equations.			●						
Represent and solve a compare word problem with smaller unknown, sum within 20, by using manipulatives and drawings.			●						
Demonstrate the ability to solve two-step addition word problems by modeling each step in the problem and completing the addition equations that represent each part.			●						
Demonstrate the ability to solve two-step subtraction word problems by modeling each step in the problem and completing the equations that represent each part.			●						
Represent and solve a two-step word problem that involves one addition and one subtraction problem by using equations with sums within 100.			●						
Identify a number as odd or even by pairing the given number of objects to determine if there is an object left over.			●						
Demonstrate understanding of even numbers by identifying an even number as the sum of two equal addends.			●						
Identify a number as odd or even by skip counting by twos.			●						
Demonstrate understanding of the number line by placing a point on a number line to represent a given whole number.			●						
Demonstrate understanding of the number line by identifying the whole numbers represented by points on a number line.			●						
Demonstrate understanding of the number line by placing points on a number line to represent sums and differences.			●						

Math Learning Objectives

ALGEBRAIC THINKING	K	1	2	3	4	5	6	7	8
Solve multiplication word problems with unknown products by using equal group models.				●					
Solve multiplication and division word problems with unknown group sizes by using models with equal groups.				●					
Solve multiplication and division word problems with an unknown number of groups by using models with equal groups.				●					
Solve multiplication word problems with an unknown product by using array models.				●					
Solve multiplication and division word problems with an unknown number of groups by using array models.				●					
Solve multiplication and division word problems with an unknown group size by using array models.				●					
Solve multiplication and division word problems with an unknown number of groups by using array models.				●					
Solve multiplication word problems with unknown products by using comparison models.				●					
Solve multiplication and division word problems with group size unknown by using comparison models.				●					
solve multiplication and division word problems with number of groups unknown by using comparison models.				●					
Solve multiplication and division word problems with equal groups by using equations.				●					
Solve multiplication and division word problems with arrays by using equations.				●					
Solve comparison multiplication and division word problems with models by using equations.				●					
solve multiplication and division word problems with models by using equations.				●					
Solve two-step word problems involving addition and subtraction with an unknown quantity by using models to make equations.				●					
Solve two-step word problems involving multiplication and division with an unknown quantity by using models to make equations.				●					
Solve a two-step word problem involving addition or subtraction and multiplication with an unknown quantity by using models to make an equation.				●					
Solve a two-step word problem involving addition or subtraction and division with an unknown quantity by using models to make an equation.				●					
Solve a two-step word problem involving any two operations with an unknown by using a model and an equation.				●					
Examine the reasonableness of a solution to an addition or subtraction equation by comparing an estimated answer to the solution.				●					
Examine the reasonableness of a solution to a one-step word problem by comparing an estimated answer to the solution.				●					
Examine the reasonableness of a solution to a two-step word problem by comparing an estimated answer to the solution.				●					
Identify arithmetic patterns with an addend of 0 and involving the order of addends by using an addition table.				●					
Identify arithmetic patterns with even and odd numbers by using an addition table.				●					

Math Learning Objectives

ALGEBRAIC THINKING	K	1	2	3	4	5	6	7	8
Identify arithmetic patterns involving the products of the factors 0 and 1 by using a multiplication table.				●					
Identify arithmetic patterns involving the order of factors by using a multiplication table.				●					
Identify arithmetic patterns with products of the factors 5, 9, and 10 by using a multiplication table.				●					
Identify arithmetic patterns with even and odd numbers by using a multiplication table.				●					
Solve division word problems by interpreting the remainder.					●				
Examine the reasonableness of solutions to multi-step word problems by comparing an estimated answer to the solution.					●				
Solve multi-step word problems with models and interpret remainders where applicable by using equations.					●				
Solve word problems involving addition and subtraction of fractions with like denominators by using models and/or equations.					●				
Solve word problems involving the multiplication of a fraction and a whole number by using a model and an equation.					●				
Demonstrate understanding of patterns by identifying the core of a repeating pattern.					●				
Demonstrate understanding of patterns by extending repeating shape patterns.					●				
Demonstrate understanding of repeating patterns by identifying terms in a sequence.					●				
Demonstrate understanding of patterns by extending repeating number patterns.					●				
Demonstrate understanding of patterns by identifying features of a pattern not explicit in the rule.					●				
Demonstrate understanding of patterns by extending growing shape and number patterns.					●				
Solve word problems involving the addition and subtraction of fractions by using visual models to represent the problem and determine the answer.						●			
Solve word problems involving the addition and subtraction of fractions by representing the problem using an equation and performing the calculation.						●			
Examine the reasonableness of a solution to addition and subtraction of fractions word problems by using benchmark fractions to estimate the solution.						●			
Solve a word problem involving the multiplication of fractions and mixed numbers by creating visual models to represent the problem and perform the calculation.						●			
Solve a word problem involving the multiplication of fractions and mixed numbers by writing an equation to represent the problem and perform the calculation.						●			
Create two numerical patterns from two given rules and identify the relationship between the corresponding terms created from the two patterns.						●			
Represent numerical patterns by forming ordered pairs using corresponding terms of two patterns.						●			
Represent numerical patterns by graphing ordered pairs on a coordinate grid.						●			

Math Learning Objectives

ALGEBRAIC THINKING	K	1	2	3	4	5	6	7	8
Demonstrate understanding of the number line by placing a point on a number line to represent a given integer.							●		
Demonstrate understanding of the number line by identifying the integers represented by points on a number line.							●		
Demonstrate understanding of the number line by placing points on a single number line to represent different forms of rational numbers and identifying when a point is correctly placed.							●		
Demonstrate understanding of the number line by identifying rational numbers represented by points on a number line.							●		
Demonstrate understanding of ratios by comparing two quantities in a given set using words and mathematical notation.							●		
Demonstrate understanding of unit rates by representing the relationship of two quantities as unit rates.							●		
Solve real-world problems involving ratios and rates by writing the correct solution using tape diagrams.							●		
Apply understanding of ratios and rates by using double number lines to solve real-world problems involving ratios and rates.							●		
Apply understanding of ratios and rates by solving real-world ratio and rate problems using equations and unit rate.							●		
Apply understanding of ratios and rates by using tables to solve real-world ratio and rate problems.							●		
Equivalent ratios by using tables to identify whole-number measurements of equivalent ratios in problems.							●		
Compare ratios involving whole-number measurement by calculating with tables of equivalent ratios.							●		
Calculate the correct plotting pairs of values found in tables of equivalent ratios involving whole-number measurement on the coordinate plane.							●		
Solve problems by calculating using unit rates.							●		
Convert units of measurement within a measurement system by identifying the correct construction of ratios in standard and real-world situations.							●		
Illustrate the relationship between ratios and percentages by providing the correct change of ratios to percentages and percentages to ratios.							●		
Solve percentage problems where the part is unknown by writing the correct solution using ratios.							●		
Solve percent problems where the percentage is unknown by writing the correct solution using ratios.							●		
Solve percent problems where the whole is unknown by writing the correct solution using ratios.							●		
Solve percent problems where a whole, part or percent is unknown, by writing the correct solution using ratios.							●		
Demonstrate understanding of how to interpret algebraic expressions by translating verbal expressions involving one or more operations into algebraic expressions.							●		
Demonstrate understanding of algebraic expressions by using appropriate mathematical language to write verbal expressions from algebraic expressions.							●		

Math Learning Objectives

ALGEBRAIC THINKING	K	1	2	3	4	5	6	7	8
Demonstrate understanding of how to interpret algebraic expressions by translating verbal expressions involving two or more operations into algebraic expressions.							●		
Demonstrate understanding that not using a fixed order of operations when evaluating algebraic expressions will produce inconsistent results by evaluating expressions in different ways and seeing that the results will vary depending on the order in which the operations are performed.							●		
Evaluate algebraic expressions containing addition/subtraction, multiplication/division, and exponents by using substitution and the order of operations.							●		
Evaluate algebraic expressions containing grouping symbols by using substitution and the order of operations.							●		
Demonstrate understanding of the standard order of operations by evaluating algebraic expressions using substitution and the order of operations.							●		
Solve real-world problems by writing and evaluating given formulas using substitution and the order of operations.							●		
Identify the parts of an algebraic expression by using the correct mathematical terminology.							●		
Demonstrate understanding of like terms in an algebraic expression with whole-number coefficients by identifying them in such expressions and will group like terms with whole-number coefficients by using addition and subtraction.							●		
Demonstrate understanding of expanding algebraic expressions with whole-number coefficients by applying the Distributive Property.							●		
Identify equivalent multiplication expressions by rewriting two-term expressions using parentheses, variables, and whole number coefficients.							●		
Understand the properties of operations by using the properties to write the simplest expression equivalent to a given expression with integer coefficients.							●		
Demonstrate understanding of equivalent expressions with whole numbers, grouping symbols, and exponents by choosing equivalent expressions and determining which property of operations can justify the equivalency.							●		
Solve equations by using visual representation to balance each side of the equation.							●		
Solve a mathematical equation in the form $x + p = q$ (where x, p, and q are nonnegative rational numbers), by using the properties of operations and equality.							●		
Solve a mathematical equation in the form $px = q$ (where x, p, and q are nonnegative rational numbers), by using the properties of operations and equality.							●		
Understand real-world algebraic problems by constructing or selecting a one-step equation that contains numbers and variables to describe a real-world situation.							●		
Understand independent and dependent variables by correctly determining which variables in graphs and tables are independent and which are dependent.							●		
Find the solution to a one-step real-world problem involving addition or subtraction or subtraction by choosing an equation and a solution.							●		

Math Learning Objectives

ALGEBRAIC THINKING	K	1	2	3	4	5	6	7	8
Demonstrate understanding of inequalities by determining if given values are in the solution set of a given inequality by using substitution.							●		
Demonstrate understanding of inequalities by matching a graph on a number line to the inequality it represents.							●		
Demonstrate understanding of inequality by representing a real-world situation as an inequality and its graph on a number line.							●		
Solve word problems involving a single rational number and any of the four operations using a model or an equation to represent the problem.								●	
Solve word problems involving several forms of rational numbers and any of the four operations by using a model or equation to represent the problem.								●	
Examine the solution to a word problem involving rational numbers of the same and different forms for reasonableness by comparing the estimate to the solution.								●	
Evaluate numerical and algebraic expressions involving integers by using the order of operations.								●	
Evaluate numerical and algebraic expressions involving rational numbers by using the order of operations.								●	
Simplify algebraic expressions with rational coefficients by using addition and subtraction to combine like terms.								●	
Demonstrate an understanding of expanding an expression with rational coefficients by using the Distributive Property.								●	
Write the sum of two terms with rational number coefficients as a product by using the Distributive Property.								●	
Write and interpret multiple expressions that represent a situation in different ways by using the Distributive Property.								●	
Demonstrate expanding an expression with integer coefficients by using the Distributive Property to write the product of a constant and a binomial as a binomial.								●	
Write a sum of two terms as a product with integer coefficients by using the distributive property.								●	
Formulate an expression equivalent to a given expression with integer coefficients, non-negative rational coefficients, and use the properties of operations.								●	
Demonstrate understanding of equivalent expressions involving rational numbers, grouping symbols, and exponents by choosing equivalent expressions and determining which property of operations can justify the equivalency.								●	
Demonstrate an understanding of the steps to follow to solve two-step algebraic equations of the form $px + q = r$, where p, q, r, and x are integers, by discussing the order in which the operations of multiplication/division and addition/subtraction should be done and using the properties of operations and equality.								●	
Solve algebraic equations in the form $px + q = r$, where p, q, r, and x are rational numbers by using the properties of operations and equality.								●	
Demonstrate the steps to follow to solve two-step algebraic equations of the form $p(x + q) = r$, where p, q, r, and x are integers, by identifying the order in which the operations of multiplication/division and addition/subtraction should be done, and by using division by p then adding or subtracting q where p, q, r, and x are integers.								●	

Math Learning Objectives

ALGEBRAIC THINKING	K	1	2	3	4	5	6	7	8
Solve mathematical equations in the form p(x + q) = r, by using division by p or multiplication by 1/p then adding/subtracting q, where p, q, r, and x are rational numbers.								●	
Find the solution to a two-step real-world problem by writing an equation to represent the problem and solving the equation.								●	
Solve a real-world problem whose constants and solution are different types of rational numbers by writing an equation to represent the problem and solving it.								●	
Solve multi-step equations whose constants, coefficients, and solutions are different types of rational numbers by using the properties of operations and equality.								●	
Determine if the solution to a real-world problem using rational numbers that may be of different types is reasonable by assessing the answer with estimation and appropriateness as it relates to the real-world situation.								●	
Demonstrate understanding of the properties of inequalities and operations by solving inequalities of the forms x + p > q and x + p < q, where p, q, and x are rational numbers and identifying the answer either in symbols or as a graph.								●	
Demonstrate understanding of the multiplication properties of inequalities by correctly giving the results of multiplying both sides of an inequality by a rational number.								●	
Solve inequalities based on the forms px + q > r and px + q < r, and identify the answer in symbols or as a graph.								●	
Solve and graph inequalities.								●	
Demonstrate understanding of real-world problems that generate one- or two-step inequalities by choosing the graph of the solution and interpreting the graph in the context of the real-world problems.								●	
Demonstrate understanding of real-world problems that generate one- or two-step inequalities by representing the problems by an inequality, solving the inequality using the properties of operations and inequalities, and interpreting the solution in light of the original problem.								●	
Compare ratios with cross multiplication and solve for unknown quantities in a proportion with cross multiplication.								●	
Test for equivalent ratios in a table and indicate whether the values represented in the table are in a proportional relationship.								●	
Plot and interpret points on a coordinate plane and indicate whether the values represented in the graph are in a proportional relationship.								●	
Derive the constant of proportionality for values in a table by using the properties of proportions and providing or selecting the correct constant.								●	
Derive the constant of proportionality by using a diagram and providing or selecting the correct constant.								●	
Derive the constant of proportionality of a graph by using the ratio of the y-coordinate of a point to the x-coordinate of the same point to identify the constant.								●	
Derive the constant of proportionality by interpreting a verbal description and providing or selecting the correct constant.								●	

Math Learning Objectives

ALGEBRAIC THINKING	K	1	2	3	4	5	6	7	8
Construct an equation, using the constant of proportionality, to represent a given written description of a proportional relationship.								●	
Demonstrate understanding of proportional relationships by summarizing the meaning of a point on the graph of a proportional relationship.								●	
Compute unit rates by calculating using simple fractions.								●	
Demonstrate the ability to compute unit rates using complex fractions by selecting the correct way to solve a problem and by writing the correct unit rate.								●	
Find an amount of simple interest by using the simple interest formula.								●	
Solve problems involving markup and markdown by writing or selecting and using a correct method for setting up and solving proportions.								●	
Solve problems involving gratuities and commissions by writing or selecting a correct method for setting up and solving problems.								●	
Solve problems involving fees by writing or selecting a correct method for setting up and solving problems.								●	
Demonstrate an understanding of percent change by finding the percent increase or percent decrease posed in real-world problems.								●	
Solve problems involving percent error by writing or selecting the correct method for setting up and solving proportions.								●	
Solve linear equations whose solutions require collecting like terms by using the properties of operations and equality.									●
Solve linear equations with variables on both sides by using the properties of operations and equality.									●
Solve linear equations in one variable with rational number coefficients by using the properties of operations and equality.									●
Solve linear equations in the form $p(x + q) = r$ that require expanding by applying the Distributive Property.									●
Demonstrate understanding of linear equations by solving an equation and identifying whether it has one, no, or infinitely many solutions.									●
Find the slope of a non-vertical line given the graph of the line or a table by determining the change in y divided by the change in x and identify the correct slope.									●
Compare the hypotenuses of two similar triangles formed by four points on a line to the slope of that line and indicate whether the slope between any two pairs of points on a line is equal.									●
Find the x- and y-intercepts of a non-vertical line by interpreting the graph of a line or a table and identify the correct intercepts.									●
Apply understanding of linear representations by identifying the correct equation of a given graph of a non-vertical line through the origin.									●
Use a given graph to identify the correct equation of a non-vertical line with y-intercept b, where b is a positive rational number.									●

Math Learning Objectives

ALGEBRAIC THINKING	K	1	2	3	4	5	6	7	8
Determine the number of solutions given a graph of a system of two linear equations.									●
Determine whether a solution for a system of simultaneous equations is correct and reasonable by assessing the answer with substitution and determining the appropriateness of the solution as it relates to the real-world situation.									●
Find the solution for a system of simultaneous equations by constructing a graph of the equations.									●
Solve a system of equations algebraically by using substitution.									●
Demonstrate understanding of simultaneous equations by using inspection for cases of "no solution" or "infinite number of solutions" and selecting the correct answer.									●
Solve real-world problems by writing a system of linear equations and graphing or substituting to solve.									●
Determine whether a relation given as a set of ordered pairs or a rule for generating y values is a function by determining whether each input value has only one output value and then identify which are functions and which are not functions.									●
Examine a rule, function table, or graph, and then answer questions about the input, output, range, or domain of that rule, table, or graph.									●
Apply understanding of linear representations by identifying the correct equation of a given graph of a non-vertical line through the origin.									●
Use a given graph to identify the correct equation of a non-vertical line with y-intercept b, where b is a positive rational number.									●
Demonstrate understanding of the graphs of systems of linear equations by determining the number of solutions given a graph of a system of two linear equations.									●
Determine whether a solution for a system of simultaneous equations is correct and reasonable by assessing the answer with substitution and determining the appropriateness of the solution as it relates to the real-world situation.									●
Find the solution for a system of simultaneous equations by constructing a graph of the equations.									●
Solve a system of equations algebraically by using substitution.									●
Find the value of y (f(x)) given an input value and a rule in f(x) form by using substitution and then select the correct output.									●
Determine whether a graph is a function by using the vertical line test and then identify graphs that are functions and graphs that are not functions.									●
Demonstrate understanding of a qualitative graph by examining the graph and selecting the correct answers to questions about the graph.									●
Demonstrate understanding of qualitative graphs by reading and analyzing a verbal description of a situation and selecting the correct graph.									●
Create function tables and graphs by interpreting the general equation y = mx + b and answer questions about the linear equation.									●

Math Learning Objectives

ALGEBRAIC THINKING	K	1	2	3	4	5	6	7	8
Distinguish between linear and nonlinear equations by identifying given equations as either linear or nonlinear.									●
Demonstrate understanding of graphs on a coordinate plane by distinguishing between linear and nonlinear graphs.									●
Interpret a description of the function and identify the correct rate of change and initial value.									●
Create a model of a linear relationship by interpreting the relationship and then selecting the correct function rule.									●
Interpret a function by observing a linear graph and identifying the correct rate of change and initial value of the line.									●
Find a function rule that corresponds to a linear graph by analyzing a linear graph and then choosing or writing the correct function rule.									●
Compare two functions by examining a function given algebraically and a function given as a graph, and then identify the correct rate of change and initial value of each.									●
Compare two functions by examining a function given as a table and a function given as a graph, and then identify the rate of change and initial value of each.									●
Compare two functions by examining functions given in different forms and then identify the rate of change and initial value of each.									●
Illustrate a proportional relationship by using the unit rate as the constant of proportionality in the equation of the line to identify and plot the (x, y) coordinates of the line and by identifying the graph that represents the correct linear equation.									●
Interpret a graph of a proportional relationship by identifying the slope of the line as the unit rate, and identify the correct equation of the graph.									●
Demonstrate understanding of real-world proportional relationships represented in different ways by comparing them in different forms.									●

Math Learning Objectives

GEOMETRY	K	1	2	3	4	5	6	7	8
Describe and identify triangles and circles by selecting the appropriate shapes from a group of shapes.	●								
Describe and identify rectangles by selecting the appropriate shapes from a group of shapes and by identifying the difference between rectangles and squares.	●								
Describe and identify hexagons by selecting the appropriate shapes from a group of shapes.	●								
Identify circles, squares, triangles, rectangles, and hexagons by selecting the appropriate shapes when analyzing and comparing the attributes of sides and vertices.	●								
Describe and identify cubes and spheres by selecting the appropriate shapes from a group of shapes.	●								
Describe and identify cones and cylinders by selecting the appropriate shapes from a group of shapes.	●								
Identify cubes, cylinders, cones, and spheres.	●								
Describe and identify 2-dimensional and 3-dimensional shapes by using the terms flat and solid.	●								
Describe and identify the location of objects in the environment by using the words above and below.	●								
Describe and identify the location of objects in the environment by using the words in front of and behind.	●								
Describe and identify the location of objects in the environment by using the words next to and beside.	●								
Describe the location of an object shaped like a 2-dimensional or a 3-dimensional shape in the environment by using relative position words.	●								
Describe 2-D and 3-D shapes by using informal language to describe, identify, and compare attributes of squares and cubes.	●								
Describe 2-D and 3-D shapes by using informal language to describe, identify, and compare attributes of circles, cones, and cylinders.	●								
Compare 2-D and 3-D shapes by using informal language to describe, identify, and compare attributes of 2-D shapes on the faces of 3-D solids.	●								
Demonstrate knowledge of triangles by identifying drawings of a triangle and by drawing triangles.	●								
Demonstrate knowledge of squares and rectangles by identifying drawings of squares and rectangles and by drawing these shapes.	●								
Demonstrate knowledge of hexagons and circles by identifying hexagons and circles and by drawing these shapes.	●								
Model shapes in the real world by composing them with simple shapes in various sizes and orientations.	●								
Make larger shapes by composing them with simple shapes.	●								
Describe a plane shape by identifying the attributes of rectangles, squares, and circles to include the terms open and closed.		●							
Demonstrate understanding of the attributes of closed shapes by drawing and identifying rectangles, squares, and circles.		●							

Math Learning Objectives

GEOMETRY	K	1	2	3	4	5	6	7	8
Describe a shape by identifying the shape as open or closed and by identifying attributes of triangles, hexagons, and trapezoids.		●							
Demonstrate an understanding of the attributes of closed shapes by drawing and identifying triangles, hexagons, and trapezoids.		●							
Identify defining attributes by identifying and sorting shapes by lines, vertices, and sides as opposed to non-defining attributes of colors, sizes, and orientations.		●							
Create composite shapes by composing 2-dimensional shapes.		●							
Identify cubes and other rectangular prisms by defining and selecting shapes based on number of faces, vertices, and edges and the shapes of faces.		●							
Identify cones and cylinders by defining and selecting shapes based on the round surfaces and on the number and shape of the faces.		●							
Create composite shapes by combining 3-dimensional shapes.		●							
Demonstrate understanding of equal shares by partitioning shapes into equal parts and identifying the number of parts in the whole and/or identifying shapes that have been partitioned into equal parts and identifying the number of parts in the whole.		●							
Demonstrate understanding of two equal partitions of a circle and rectangle by identifying the shape described as half of or having halves.		●							
Demonstrate understanding of two equal partitions of a circle and rectangle by identifying the shape described as half of or having halves.		●							
Draw and identify 2-dimensional shapes based on attributes.			●						
Recognize attributes of 2-dimensional shapes by selecting shapes with a given number of sides or angles from a group of shapes that have various sides and angles.			●						
Recognize attributes of 3-dimensional shapes by selecting shapes with given numbers of edges, vertices, faces, or equal faces.			●						
Identify quadrilaterals by counting the number of sides and angles of each shape to recognize that the name of each shape is called quadrilateral.			●						
Identify pentagons and hexagons by counting the number of sides and angles of each shape as defining attributes of each shape.			●						
Identify triangles, quadrilaterals, pentagons, and hexagons by determining the number of sides, faces, or angles.			●						
Demonstrate understanding of equal parts by identifying and describing a whole partitioned into 2, 3, or 4 equal parts as representations of equal shares.			●						
Identify and describe 2 and 4 equal partitions of a circle and rectangle by using the words halves, fourths, half of, and a fourth of.			●						

Math Learning Objectives

GEOMETRY	K	1	2	3	4	5	6	7	8
Describe 3 equal partitions of a circle and a rectangle by using the words thirds and a third of.			●						
Demonstrate an understanding that equal parts of the same whole do not need to be the same shape by identifying halves, thirds, and fourths of identical wholes that have equal parts that are different shapes.			●						
Demonstrate understanding of equal partitions of a rectangle by identifying the number of same-size squares that partition a rectangle into rows and columns.			●						
Demonstrate understanding of quadrilaterals and their attributes by recognizing quadrilaterals, parallelograms, and their attributes.				●					
Describe quadrilaterals based on the number of equal side lengths and the angles.				●					
Demonstrate understanding of quadrilaterals and their attributes by recognizing and/or drawing rectangles, squares, rhombuses, trapezoids, and their attributes.				●					
Demonstrate understanding of fractional parts by identifying equally partitioned shapes labeled with unit fractions.				●					
Demonstrate understanding of geometric objects by identifying, naming, labeling, and/or drawing points, segments, lines, and rays.					●				
Demonstrate understanding of geometric objects by identifying and/or drawing parallel, intersecting, and perpendicular lines and their descriptions.					●				
Demonstrate understanding of geometric objects by identifying geometric objects and their descriptions.					●				
Demonstrate understanding of angles by identifying the amount of rotation from one ray to the other for a given angle.					●				
Demonstrate understanding of angles by recognizing and/or drawing angle types and naming angles.					●				
Identify points, line segments and angles as part of a figure by selecting appropriate parts of a figure.					●				
Identify angles in 2-dimensional figures as right, acute, or obtuse by selecting appropriate figures and naming angles.					●				
Describe and identify parallel and perpendicular line segments in shapes by selecting appropriate parts of figures.					●				
Classify shapes by identifying the presence or absence of angles of a specified size.					●				
Demonstrate understanding of triangles by identifying triangles as acute, right, or obtuse.					●				
Demonstrate understanding of triangles by identifying triangles as scalene, isosceles, or equilateral.					●				
Classify shapes by identifying the presence or absence of parallel or perpendicular line segments.					●				
Demonstrate understanding of symmetry by recognizing lines of symmetry in 2-dimensional figures.					●				
Demonstrate understanding of symmetry by identifying line-symmetric figures.					●				
Demonstrate understanding of the coordinate plane by accurately describing parts of the coordinate plane and graphing points in the first quadrant.						●			
Demonstrate understanding of the coordinate plane by identifying the coordinates of points graphed in the first quadrant.						●			

Math Learning Objectives

GEOMETRY	K	1	2	3	4	5	6	7	8
Represent and solve real-world or mathematical problems on a coordinate plane by plotting or identifying points in the first quadrant.						●			
Demonstrate understanding of properties of 2D figures by identifying quadrilaterals and their attributes.						●			
Demonstrate understanding of the subcategories of quadrilaterals by identifying the names that describe specific quadrilaterals.						●			
Demonstrate understanding of the quadrilateral hierarchy by describing subcategories within the hierarchy.						●			
Identify the coordinates of points graphed in all quadrants of the plane and by graphing a point given its coordinates.							●		
Find the distance between two points having the same x-coordinates or same y-coordinates by finding the absolute value of the difference of the non-equal coordinates.							●		
Determine whether two ordered pairs are related by reflection across one or both axes by comparing the signs of the corresponding coordinates.							●		
Demonstrate knowledge of the coordinate plane by graphing points that determine a polygon and naming it correctly.							●		
Solve real-world and mathematical problems that involve points, segments, and polygons by finding the distance between points that have the same x- or y-coordinates.							●		
Identify prisms and pyramids by selecting appropriate figures, names of figures, and characteristics of figures.							●		
Identify three-dimensional figures by analyzing nets made of rectangles and triangles and choosing the figure that would be formed by the net.							●		
Demonstrate understanding of nets by identifying correctly constructed nets for rectangular prisms.							●		
Demonstrate understanding of nets by identifying correctly constructed nets for prisms and pyramids.							●		
Demonstrate understanding of 2-D figures drawn with a ruler and protractor to meet given conditions by determining whether drawn figures meet the conditions.								●	
Use triangle facts to determine whether given conditions will lead to a unique triangle, more than one possible triangle, or no triangle.								●	
Demonstrate knowledge of angles by describing and identifying complementary and supplementary angles.								●	
Demonstrate knowledge of angles by describing and identifying vertical and adjacent angles and linear pairs of angles.								●	
Demonstrate understanding of complementary, supplementary, vertical, and adjacent angles by writing equations and identifying unknown angles.								●	
Determine if a triangle is a right triangle by using the Pythagorean Theorem and its converse.									●
Apply the Pythagorean theorem by determining the unknown side length of a right triangle.									●
Find the distance between two points in a coordinate system by using the Pythagorean Theorem.									●
Use the Pythagorean Theorem to solve problems by determining the unknown side length of a right triangle in a context.									●

Math Learning Objectives

GEOMETRY	K	1	2	3	4	5	6	7	8
Determine the unknown side length of a right triangle in a 3-dimensional figure by using the Pythagorean Theorem.									●
Demonstrate understanding of translation in a coordinate plane by using coordinates to identify the translation of a polygon.									●
Demonstrate knowledge of reflection by identifying the coordinates of a reflected polygon and identifying the type of reflection.									●
Demonstrate knowledge of rotation by determining the angle of rotation and by identifying the image with coordinates of a rotated polygon using the angle of rotation.									●
Demonstrate knowledge of a scale factor for a dilation by determining the scale factor using coordinates and by identifying the image with coordinates using a scale factor.									●
Demonstrate knowledge of multiple transformations by identifying the image and its coordinates in the coordinate plane after two transformations of different types.									●
Describe congruent figures by listing a sequence of transformations between two figures.									●
Recognize and describe congruent two-dimensional figures by selecting appropriate figures and writing congruency statements.									●
Describe similar figures by listing a sequence of transformations between two figures.									●
Recognize and describe similar two-dimensional figures by selecting appropriate figures and characteristics of figures.									●
Demonstrate knowledge of angles formed by parallel lines intersected by a transversal by identifying vertical, adjacent, and corresponding angles.									●
Demonstrate knowledge of angles formed by parallel lines intersected by a transversal by identifying alternate interior and alternate exterior angles.									●
Demonstrate knowledge of angles formed by parallel lines intersected by a transversal by finding unknown angle measures.									●
Demonstrate understanding of interior angles of triangles by finding unknown angles in a triangle.									●
Demonstrate an understanding of the properties of the exterior angles of a triangle by finding unknown measures of angles of a triangle.									●
Demonstrate an understanding of the Angle-Angle Criterion for similar triangles by determining whether two triangles are similar given information about the triangles.									●
Identify spheres by selecting appropriate figures, names of figures, and characteristics of figures and identify parts of a sphere by naming the center, radius, and diameter.									●
Identify cylinders by selecting appropriate figures, names of figures, and characteristics of figures .									●
identify parts of a cylinder by naming the base, height, center of base, radius of base, and diameter of base.									●
Identify cones by selecting appropriate figures, names of figures, and characteristics of figures.									●
identify parts of a cone by naming the vertex, base, height, radius of base, and diameter of base.									●

Math Learning Objectives

MEASUREMENT	K	1	2	3	4	5	6	7	8
Demonstrate an understanding of length when comparing two objects by using the words longer, shorter, or same length.	●								
Demonstrate an understanding of height when comparing two objects by using the words taller, shorter, or same height.	●								
Demonstrate an understanding of weight when comparing two objects by using the words heavier, lighter, or same weight.	●								
Demonstrate an understanding of capacity when comparing 2 objects by using the words holds more, holds less, or holds the same.	●								
Demonstrate an understanding of measurable attributes by identifying that an object can be described by its length, height, weight, and/or capacity.	●								
Order 3 objects from long to longest and use the words long, longer, and longest to identify objects of graduating length.		●							
Order 3 objects from short to shortest and use the words short, shorter, and shortest to identify objects of graduating length.		●							
Order 3 objects from tall to tallest and short to shortest and use the words tall, taller, tallest, short, shorter, and shortest to identify objects of graduating height.		●							
Order 3 objects by comparing the lengths of two objects to a third object and identifying the order of the objects from shortest to longest.		●							
Express the length of an object by laying multiple copies of a shorter object (the length unit) end to end and identifying the length as a whole number of length units.		●							
Express understanding of measurement by measuring objects with common objects and identifying the nearest unit measurements.		●							
Measure objects by using square tiles and identifying and/or recording the correct whole-number measurements.		●							
Demonstrate understanding of time to the hour and half hour by reading the time displayed on an analog or a digital clock and identifying or recording the time shown.		●							
Demonstrate understanding of time to the nearest 15 minutes by reading the time displayed on an analog and digital clock and identifying or recording the time shown.			●						
Demonstrate understanding of time to the nearest 5 minutes by reading the time displayed on an analog and digital clock and identifying or recording the time shown.			●						
Demonstrate understanding of the difference between a.m. and p.m. by identifying a.m. and p.m. and associating the activities with time of day.			●						
Show how to measure objects in inches by using a ruler marked in whole 1-inch unit lengths to tell the number of inches.			●						
Estimate linear measurements in inches by making educated guesses regarding an object's length and using an inch ruler to check by measuring.			●						
Show how to measure objects in feet by using a 12-inch ruler marked in whole 1-inch unit lengths to tell the number of feet.			●						
Estimate linear measurements in feet by making educated guesses regarding at object's length and using an inch ruler to check by measuring.			●						

Math Learning Objectives

MEASUREMENT	K	1	2	3	4	5	6	7	8
Use objects with similar lengths to inches and feet to estimate lengths.			●						
Show how to measure objects in yards by using a yardstick and a measuring tape marked in feet and yards.			●						
Show how to measure objects in centimeters by using a ruler marked in whole 1-centimeter unit lengths to find the length in centimeters.			●						
Estimate linear measurements in centimeters by making educated guesses regarding an object's length and using a centimeter ruler to check by measuring.			●						
Show how to measure objects in meters by using a meter stick and a measuring tape marked in meters to find the length in meters.			●						
Estimate linear measurements in meters by making educated guesses regarding an object's length and checking them by measuring.			●						
Use objects with similar lengths to centimeters and meters to estimate lengths.			●						
Determine how much longer in inches one object is than another by measuring and expressing the length difference in inches.			●						
Determine how much longer in feet one object is than another by measuring and expressing the length difference in feet.			●						
Determine how much longer in yards one object is than another by measuring and expressing the length difference in yards.			●						
Determine how much longer in centimeters one object is than another by measuring and expressing the length difference in centimeters.			●						
Determine how much longer in meters one object is than another by measuring and expressing the length difference in meters.			●						
Measure objects using different units of length by selecting the appropriate tool, such as a ruler, yardstick, or measuring tape and identifying the correct measurement.			●						
Demonstrate the equivalence of units by measuring an object twice with different customary units (yards or feet or inches) and identifying the 2 different measurements.			●						
Illustrate how the size of the unit length (e.g., inch, foot, and yard) affects the measurement by choosing the unit that relates the given measurement to the size of the object measured.			●						
Measure objects using different linear units by selecting the appropriate tool, such as a meter stick or centimeter ruler, and identifying the measurement of an object.			●						
Demonstrate the equivalence of units by measuring the same object twice with different metric units and identifying the two different measurements.			●						
Illustrate how the size of the unit length (e.g., meter and centimeter) affects the measurement by choosing the unit that relates the given measurement to the size of the object measured.			●						
Express whole number lengths by showing or identifying whole numbers as lengths on a number line.			●						

Math Learning Objectives

MEASUREMENT	K	1	2	3	4	5	6	7	8
Find sums or differences of lengths within 100 by representing or identifying the lengths on a number line.			●						
Solve addition word problems involving lengths within 100 by using drawings such as shaded bars and number lines to find the total length of two objects.			●						
Solve subtraction word problems involving lengths within 100 by using drawings such as shaded bars and number lines to find the difference between two objects.			●						
Solve addition or subtraction problems involving lengths within 100 by using equations with symbols for unknown numbers.			●						
Recognize pennies, nickels, dimes, and quarters by identifying the value of each coin and counting to tell how many of each coin are in a group.			●						
Understand of the value of coins by sorting a group pennies, nickels, dimes, and quarters and arrange the coins from greatest value to least value and use the cent symbol.			●						
Recognize 1-, 5-, 10-, and 20-dollar bills by identifying their distinguishing features to include the value of each bill and to count how many of each bill.			●						
Understand the value of dollar bills by sorting a group of 1-, 5-, 10-, and 20-dollar bills and arrange the bills from greatest value to least value and use the dollar symbol.			●						
Determine the value of a variety of pennies, nickels, dimes, and quarters by counting on to identify the total amount of all coins.			●						
Count on to solve word problems involving coins by using models to find the total.			●						
Determine the value of a collection of $1, $5, $10, and/or $20 bills by counting on to find the total amount of all bills.			●						
Count on to solve word problems involving dollar bills by using models to find the total.			●						
Identify groups of coins (pennies, nickels, dimes, and quarters) having equal values by comparing their totals.			●						
Demonstrate an understanding of the value of the one-dollar bill by identifying groups of coins that equal one dollar (100 cents).			●						
Identify groups of dollar bills (ones, fives, tens, and twenties) having equal values by comparing their totals.			●						
Demonstrate an understanding of time to the minute by telling time on an analog clock.				●					
Demonstrate an understanding of time to the minute by identifying the correct analog clock when given the time.				●					
Demonstrate an understanding of time by identifying and describing intervals and time on a number line.				●					
Solve addition and subtraction word problems involving time by using a number line.				●					
Demonstrate understanding of metric liquid volume by identifying the correct amount of liquid in containers with measurement scales.				●					
Estimate liquid volume in liters and milliliters by choosing the correct estimate.				●					
Solve liquid volume word problems involving all four operations by identifying the correct answer.				●					

Math Learning Objectives

MEASUREMENT	K	1	2	3	4	5	6	7	8
Demonstrate an understanding of mass measurement by identifying the correct mass of given items.				●					
Demonstrate an understanding of mass by identifying the correct estimate.				●					
Solve word problems involving mass by identifying the correct answer.				●					
Demonstrate understanding of perimeter by calculating the perimeter of polygons.				●					
Calculate the perimeter of polygons by using units on a grid.				●					
Calculate unknown side lengths by using addition and subtraction.				●					
Solve perimeter word problems by identifying the correct answer.				●					
Measure the area of rectilinear figures by using tiling of unit squares or by counting a correctly tiled figure.				●					
Find the area of a rectilinear figure by using addition and finding the sum.				●					
Find areas of rectangles and solve area word problems by using multiplication and finding the product.				●					
Solve area word problems by using multiplication and identifying the correct area.				●					
Determine the area of rectangles by using models and applying the distributive property.				●					
Determine the area of rectilinear shapes on a grid by decomposing the shapes into non-overlapping rectangles and adding the areas of the non-overlapping parts.				●					
Determine the area of rectilinear shapes by decomposing the shapes into non-overlapping rectangles and adding the areas of the non-overlapping parts.				●					
Recognize rectangles with the same perimeter but different areas or rectangles with different perimeters but the same area by calculating the perimeter and area of each.				●					
Demonstrate an understanding of money by finding the value of a set of coins and identifying equivalent values of coins.					●				
Solve word problems involving money by using addition or subtraction.					●				
Solve word problems involving money by using multiplication or division.					●				
Convert with customary units of length by identifying measurement equivalents.					●				
Convert with metric units of length by identifying measurement equivalents.					●				
Convert with customary units of weight by identifying measurement equivalents.					●				
Convert metric units of mass by identifying measurement equivalents.					●				
Convert customary units of liquid volume by identifying measurement equivalents.					●				
Convert metric units of liquid volume by identifying measurement equivalents.					●				
Convert units of time by identifying measurement equivalents.					●				

Math Learning Objectives

MEASUREMENT	K	1	2	3	4	5	6	7	8
Solve word problems involving time by using number lines and identifying the answer.					●				
Solve word problems involving time by using the conversion to identify the answer.					●				
Solve word problems involving distance by using diagrams and identifying the answer.					●				
Solve word problems involving distance by using the conversion to identify the answer.					●				
Demonstrate understanding of the perimeter formula by using an equation to calculate the perimeter of squares and rectangles.					●				
Demonstrate understanding of the area formula by using an equation to calculate the area of squares and rectangles.					●				
Demonstrate understanding of the area formula by determining the measurement of a missing side length.					●				
Solve word problems involving mass or weight by using diagrams and identifying the answer.					●				
Solve word problems involving mass or weight by using the conversion to identify the answer.					●				
Solve mass or weight word problems involving fractional units by using the conversion to identify the answer.					●				
Solve word problems involving liquid volume by using diagrams with measurement scales.					●				
Solve conversion word problems involving liquid volume by using the conversion to identify the answer.					●				
Solve liquid volume word problems involving fractional units by using the conversion to identify the answer.					●				
Demonstrate understanding of angle measurements by identifying and describing angle measurements in degrees.					●				
Measure angles by using a protractor and identifying the correct degree measure.					●				
Estimate and/or draw angle measures by identifying approximate degree measures and/or sketching angles of a specific degree.					●				
Recognize angle measure as additive by finding the combined measure of an angle or an unknown angle measure of a decomposed angle.					●				
Demonstrate an understanding of volume by calculating volume using unit cubes.						●			
Find the volume of rectangular prisms by counting unit cubes and multiplying.						●			
Solve real-world word problems involving the volume of rectangular prisms by applying a formula.						●			
Recognize volume as additive by calculating and adding the volume of two solid, non-overlapping, right rectangular prisms.						●			
Convert with units of length by identifying measurement equivalents.						●			
Convert with units of mass or weight by identifying measurement equivalents.						●			
Convert with units of liquid volume by identifying measurement equivalents.						●			

Math Learning Objectives

MEASUREMENT	K	1	2	3	4	5	6	7	8
Solve multistep problems involving units of measurement.						●			
Demonstrate understanding of the formula for the area of a right triangle by identifying and completing the correct equation for a given triangle.							●		
Solve mathematical and word problems involving the area of right triangles by using an area formula.							●		
Solve mathematical and word problems involving the area of non-right triangles by using an area formula.							●		
Use decomposition and composition of a parallelogram and triangles to create a rectangle and solve real-world problems involving areas of polygons.							●		
Identify the relationship between the areas of trapezoids, triangles, and rectangles by using decomposition.							●		
Solve real-world problems involving areas of polygons by using given measurements, composition, and decomposition.							●		
Determine that a polygon is composed of triangles and rectangles by decomposing polygons into triangles and rectangles.							●		
Solve for the area of polygons by using decomposition.							●		
Solve real-world problems involving areas of polygons by using given measurements, composition, and decomposition.							●		
Find the surface area of rectangular prisms by using nets and adding the area of each face to identify the surface area.							●		
Determine the surface area of triangular prisms by using nets and adding the area of each face to identify the surface area.							●		
Demonstrate an understanding of volume by calculating the volume of a prism composed of cubes with fractional edge lengths by multiplying the volume of one cube by the total number of cubes in the prism and calculate the volume of a cube with fractional edge lengths by using the formula Volume = length x width x height.							●		
Determine the volume of a fractional, right rectangular prism by using the formula V = l x w x h, and find the volume of right rectangular prisms with fractional edge lengths by applying the formula V = Bh.							●		
Find the scale factor of a scale drawing in a different scale by using ratios and basic computations.								●	
Compute side lengths and perimeter of geometric figures by using measurements from scale drawings.								●	
Compute the area of a polygon by using information about a scale model of the polygon.								●	
Identify scale drawings by using measurements from another figure and the scale factor.								●	
Solve real world problems using scale models by identifying the scale or scale factor.								●	
Identify parts of a circle and find a circle's diameter, given the radius, and find the radius, given the diameter.								●	
Demonstrate an understanding of pi by finding the circumference and the diameter of a circle.								●	
Find the area of a circle by using the standard formula and given measurements.								●	
Solve real-world problems involving the area and circumference of circles by using standard formulas.								●	

Math Learning Objectives

MEASUREMENT	K	1	2	3	4	5	6	7	8
Derive the surface area of rectangular prisms by interpreting a figure and determining the answer.								●	
Derive the surface area of triangular prisms by interpreting a figure and determining the answer.								●	
Solve real-world problems involving the surface area of triangular and rectangular prisms by interpreting a figure and identifying the surface area.								●	
Recognize different views of three-dimensional figures by identifying the top, side, and front views of the figure.								●	
Identify parts of 3-D figures by naming the line segments, points, and polygons in the figure.								●	
Identify the two-dimensional figures that result from slicing right rectangular prisms and right rectangular pyramids by selecting appropriate figures and names of figures.								●	
Calculate the volume and solve real-world problems involving triangular prisms by using the formula and identifying the correct answer.								●	
Calculate the volume and solve real-world problems involving pyramids by using the formula and identifying the correct answer.								●	
Solve real-world problems involving the volume of cylinders, cones, and spheres by interpreting a figure and identifying the volume.									●
Find the volume of a cylinder by using the formula and identifying the correct answer.									●
Find the volume of a cone by using the formula and identifying the correct answer.									●
Find the volume of a sphere by using the formula and identifying the correct answer.									●

Math Learning Objectives

STATISTICAL ANALYSIS	K	1	2	3	4	5	6	7	8
Compare and contrast objects by identifying them as alike or different.	●								
Compare and contrast objects by sorting them into two categories.	●								
Count grouped objects by sorting a collection of objects into two or three groups and counting the number of objects in each group.	●								
Sort objects into 3 groups, count the number of objects in each group, and then compare the groups by identifying the groups that have the same number of objects.	●								
Arrange data with up to three categories by completing a tally chart.		●							
Represent and interpret data with up to three categories in a tally table by identifying how many in all, how many in a category, and how many more or less are in one category than in another.		●							
Learn to create and interpret picture graphs.		●							
Enter data in a picture graph by using data in a tally table with up to three categories.		●							
Create single-unit scale picture graphs from a table by using the given data to illustrate the appropriate number of pictures in each category.			●						
Interpret single-unit scale picture graphs by identifying the correct number of pictures in each category and comparing the numerical data.			●						
Create single-unit scale bar graphs from a table by using the given data to illustrate the appropriate heights or lengths of bars in each category.			●						
Interpret single-unit scale bar graphs by identifying the length or height of the bars and comparing the numerical data.			●						
Solve addition problems using single-unit scale bar graphs by interpreting the data in the graph and applying the data to "put together" situations.			●						
Solve subtraction problems using single-unit scale bar graphs by interpreting the data in the graph and applying the data to "compare" or "take apart" situations.			●						
Construct a line plot by interpreting data in a tally chart and placing the appropriate number of Xs on a horizontal scale.			●						
Construct a line plot from given length measurements of several different objects by placing the appropriate number of Xs to represent data on a horizontal scale.			●						
Construct a line plot from given repeated measurements of the same object by placing the appropriate number of Xs to represent data on a horizontal number line scale.			●						
Demonstrate understanding of scaled pictographs by correctly identifying pictographs that accurately represent given data and/or creating scaled pictographs.				●					
Demonstrate understanding of scaled pictographs by interpreting given data and solving one- and two-step word problems.				●					
Demonstrate understanding of scaled bar graphs by correctly identifying bar graphs that accurately represent given data and/or creating scaled bar graphs.				●					

Math Learning Objectives

STATISTICAL ANALYSIS	K	1	2	3	4	5	6	7	8
Demonstrate understanding of scaled bar graphs by interpreting given data and solving one- and two-step word problems.				●					
Practice using information from scaled graphs to solve problems.				●					
Identify line plots with a scale in halves that accurately represent given data and/or create line plots with a scale in halves.				●					
Identify line plots with a scale in quarters that accurately represent given data and/or create line plots with a scale in quarters.				●					
Demonstrate understanding of line plots by interpreting given data and solving one-step word problems.				●					
Demonstrate understanding of line plots by identifying and/or creating line plots with a scale in halves, quarters, and eighths that accurately represent given data.					●				
Solve addition and subtraction problems based on line plots.					●				
Identify and/or create line plots with a scale in quarters or eighths that accurately represent given data and solve problems based on line plots.						●			
Categorize questions relating to data by analyzing the wording and potential data generated by sample questions and identifying whether the questions are statistical or non-statistical.							●		
Organize data by completing and answering questions about a table.							●		
Construct a single line plot or dot plot by setting up a number line and scale and identifying the correct data points.							●		
Calculate the median and mode of a set of values by organizing the data set and identifying the correct median and mode. Students will calculate the range of a set of values by organizing the data set, performing necessary operations, and identifying the range.							●		
Calculate the mean of a set of values by organizing the data set and performing necessary operations, and then identifying the correct mean.							●		
Calculate an unknown data point in a set of values given the mean of these values by performing necessary operations and then identify the correct missing data point.							●		
Interpret real-world charts and graphs and find the mean, median, and mode by organizing the data set and performing necessary operations.							●		
Demonstrate an understanding of histograms by identifying the components of a histogram and determining whether or not the histogram represents the given data.							●		
Interpret data displayed on a histogram by comparing data bins, and selecting the correct interpretations from a list.							●		
Demonstrate an understanding of box plots by identifying the components of a box plot and determining the correct box plot for the given data.							●		
Interpret data on a box plot by identifying the data points associated with the median, quartiles, and extremes of a box plot and by comparing box plots.							●		

Math Learning Objectives

STATISTICAL ANALYSIS	K	1	2	3	4	5	6	7	8
Describe a data distribution by identifying the attribute being measured, its units of measurement, and how many observations were made.							●		
Identify patterns and outliers by examining the placement relationship of data points and selecting the correct patterns and outliers from a list.							●		
Identify outliers, clusters, or gaps by examining the shape of a data distribution, and determine the most appropriate measure of center or variation of a data set by examining the characteristics of the data points and selecting the most appropriate measure of center or variation.							●		
Determine the most appropriate measure of center or variation of a data set by examining the characteristics of the data points and selecting the most appropriate measure of center or variation.							●		
Demonstrate understanding of the meaning of probability by identifying which numbers could describe a probability and matching numerical values to the terms likely, unlikely, equally likely, certain, and impossible.								●	
Demonstrate understanding of experimental probability by identifying the approximate probability of a simple event and the approximate number of expected outcomes of a large number of trials.								●	
Demonstrate understanding of theoretical probability by identifying the probability of simple independent events.								●	
Demonstrate understanding of the difference between theoretical and experimental probabilities by identifying possible reasons for the differences.								●	
Demonstrate understanding of the possible outcomes of a compound probability experiment by identifying the members of the sample space and by creating a list or table of all possible outcomes.								●	
Demonstrate understanding of the possible outcomes of a compound probability experiment by creating a tree diagram for the sample space.								●	
Demonstrate understanding of compound probability by identifying the number of distinct outcomes in a sample space and by identifying the probability of an event.								●	
Design a simulation to generate frequencies for compound events by selecting two simple events and explaining how the outcome data will be gathered.								●	
Understand validity of population samples by determining if the sample is random.								●	
Use data from a random sample to draw inferences about a population by identifying unknown characteristics formed by analyzing random samples.								●	
Gauge the variation in estimates or predictions by interpreting data from multiple samples and identifying correct estimates and predictions given data.								●	
Describe the differences in the measures of center, variability, and range and by identify correctly graphed data on a double dot plot or double line plot.								●	
Draw informal comparative inferences using data displayed on double box plots by determining the correct medians, quartiles, extremes, and interquartile ranges.								●	

Math Learning Objectives

STATISTICAL ANALYSIS	K	1	2	3	4	5	6	7	8
Compare two data sets by visually identifying overlap on a double dot plot and by finding the means and the mean absolute deviations of both sets.								●	
Construct scatter plots for bivariate data by using given data and providing the correct points on a labeled grid.									●
Identify and interpret clustering, outliers, negative, positive, and no associations by examining a scatter plot and selecting the correct association from a list and categorize linear and nonlinear associations.									●
Locate the line of best fit by examining a scatter plot and selecting the correct line from a list.									●
Demonstrate understanding of the line of best fit by finding the y-intercept of a line of best fit and describing what the y-intercept means in the context of the data.									●
Demonstrate understanding of the line of best fit by finding the slope of a line of best fit and describing what the slope means in the context of the data.									●
Make predictions about the relationship between two variables by using the equation of a linear model.									●
Demonstrate understanding of two-way tables by completing and answering question about a table.									●
Interpret data by examining data in a two-way table and identifying the correct conclusions.									●
Understand relative frequencies (expressed in percents) in the rows and columns of a two-way table by calculating the relative frequency of different data cells expressed as percents.									●