



Kindergarten

Counting and Sequencing

Count to 100 by ones and tens

Count forward beginning from a given number (other than one) in sequence

Count to tell the number of objects (up to 20)

Understand the relationship between numbers and quantities

Compare numbers between 1 and 10

Operations and Algebraic Thinking

Represent addition and subtraction with objects, fingers, mental images, drawings and sounds

Represent addition and subtraction with equations and expressions within 10

Solve addition and subtraction word problems within 10 using objects and drawings

Decompose numbers less than or equal to 10 in more than one way

Add to make a ten for any number 1-9 in multiple ways

Fluently add and subtract within 5

Numbers and Operations Base Ten

Work with numbers 11-19 to gain foundations for place value



First Grade

Operations and Algebraic Thinking

Use addition and subtraction within 20 to solve word problems by adding to, putting together, taking apart, and comparing numbers by using objects, drawings and equations

Solve word numbers with three whole numbers whose sum is less than 20 using objects, drawing, and equations

Apply properties of operations to add and subtract

Understand that subtraction is an unknown-addend problem

Add and subtract within 20, fluently within 10

Understand the meaning of the equal sign

Determine the missing whole number in addition and subtraction equations

Numbers and Operations Base Ten

Count to 120 from any number

Read and write numerals up to 120

Represent a number of objects with a written numbers

Understand that the two digits of a two-digit number represent an amount of tens and ones

Compare two-digit numbers and use symbols $>$, $<$, $=$

Add within 100

Add and subtract with multiples of 10



Measurement and Data

Order three objects by length

Compare the lengths of two objects indirectly by using a third object (hand, foot, book, etc.)

Express the length of objects with a whole number



Second Grade

Operations and Algebraic Thinking

Use addition and subtraction within 100 to solve one- and two-step word problems by adding to, taking from, putting together, taking apart, and comparing numbers by using objects, drawings and equations

Fluently add and subtract within 20 using mental strategies

Determine if a group of objects (within 20) is odd or even by pairing or counting by 2s

Write an equation to express an even number as a sum of two equal addends (doubles)

Numbers and Operations Base Ten

Understand that the three digits of a three-digit number represent amounts of hundreds, tens and ones

Count within 1000

Skip count by 5s, 10s and 100s

Read and write numbers to 1000 using base-ten numbers, number names and expanded form

Compare two three-digit numbers and use symbols $>$, $<$, $=$

Fluently add and subtract within 100

Add up to four two-digit numbers

Add and subtract within 1000 using models, drawings using place value strategies

Mentally add and subtract 10 or 100 to a given number 100-900



Measurement and Data

Measure the length of an object with appropriate tools

Measure the length of an object using different length units (i.e. hand and ruler or penny and inch) and describe how the two measurements relate to the size of the object (unit) chosen

Estimate lengths using inches, feet, centimeters, meters

Measure to determine how much longer one object is than another



Third Grade

Operations and Algebraic Thinking

Interpret products of whole numbers (i.e. 5×7 is 5 groups of 7 objects)

Interpret whole number quotients

Use multiplication and division within 100 to solve word problems involving equal groups

Determine the unknown whole number in a multiplication or division equation

Apply properties of operations as strategies to multiply and divide

Understand division as an unknown factor problem

Fluently multiply and divide within 100

Solve two-step word problems using the four operations

Identify arithmetic patterns and explain them using the properties of operations

Numbers and Operations Fractions

Understand a fraction $\frac{1}{b}$ means 1 portion of a whole partitioned into b parts

Understand a fraction as a number on the number line

Represent fractions on a number line

Compare fractions and reason about their size and equivalence

Measurement and Data

Tell and write time to the nearest minute and measure time intervals in minutes

Solve word problems involving time

Measure and estimate liquid volumes in grams, kilograms and liters

Use operations to solve one-step word problems involving mass and volume

Recognize area as an attribute of plane figures

Understand concepts of area measurement

Measure area by counting unit squares

Relate area to the operations of multiplication and addition



Fourth Grade

Operations and Algebraic Thinking

Interpret a multiplication equation as a comparison

Represent verbal statements of multiplicative comparisons as multiplication equations (i.e. 5 times as many as seven is 35 corresponds to $5 \times 7 = 35$)

Multiply or divide to solve word problems involving multiplicative comparisons using drawings and equations

Solve multistep word problems posed with whole number answers using the four operations

Represent word problems using equations with a letter standing for the unknown

Numbers and Operations Base Ten

Recognize that in a multi-digit whole number, in digit in one place represents ten times the digit to its right

Read and write multi-digit whole numbers using base-ten numerals, number names and expanded form

Compare two multi-digit numbers based on meanings of the digits in each place using $>$, $<$, $=$

Use place value understanding to round multi-digit whole numbers to any place

Fluently add and subtract multi-digit whole numbers using the standard algorithm

Multiply a whole number of up to four digits by a one-digit whole number

Multiply two two-digit numbers

Use illustrations, models, equations, area models to explain multiplication and division calculations



Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors

Numbers and Operations Fractions

Explain why a fraction a/b is equivalent to a fraction $(nxa)/(nxb)$ by using visual models

Compare two fractions with different numerators and different denominators

Understand a fraction a/b with $a > 1$ as a sum of fractions $1/b$ (i.e. $\frac{3}{5} = \frac{1}{5} + \frac{1}{5} + \frac{1}{5}$)

Apply and extend previous understandings of multiplication to multiply a fraction by a whole number

Express a fraction with denominator 10 as an equivalent fraction with denominator 100

Use decimal notation for fractions with 10 and 100 as the denominator

Compare two decimals to hundredths by reasoning about their size using symbols $>$, $<$, $=$



Fifth Grade

Numbers and Operations Base Ten

Recognize that in a multi-digit whole number, in digit in one place represents ten times the digit to its right

Explain patterns in the number of zeros of the product when multiplying a number by powers of 10

Explain patterns in the placement of the decimal point as multiplying or dividing by a power of 10

Read, write, and compare decimals to thousandths

Use place value understanding to round decimals to any place

Fluently multiply multi-digit whole numbers using the standard algorithm

Find whole-number quotients of whole numbers up to four-digit dividends and two-digit divisors

Use illustrations, models, equations, area models to explain multiplication and division calculations

Add, subtract, multiply and divide decimals to hundredths

Numbers and Operations Fractions

Add and subtract fractions with unlike denominators (using equivalent fractions)

Solve word problems involving addition and subtraction of fractions

Solve word problems that involve division of whole numbers with fractional answers

Use benchmark fractions and number sense of fractions to mentally estimate and assess reasonableness of answers

Interpret a fraction as division of the numerator by the denominator



Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction

Interpret multiplication as resizing (or scaling) by comparing the products and factors

Solve real world problems involving multiplication of fractions and mixed numbers using fraction models and equations

Apply and extend previous understanding of division to divide unit fractions

Measurement and Data

Recognize volume as an attribute of solid figures

Measure volumes by counting unit cubes using cubic cm, cubic in, cubic ft, and improvised units

Relate volume to the operations of multiplication and addition