

## Kindergarten

<b>Whole Numbers</b>	<b>Spring</b>
Count	K.1.A Rote count by ones forward from 1 to 100 and backward from any number in the range of 10 to 1. K.1.E Count objects in a set of up to 20, & count out a specific number of up to 20 objects
Read	K.1.B Read aloud numerals from 0 to 31.
Order	K.1.D Order numerals from 1 to 10. K.1.G Locate numbers from 1 to 31 on the number line (without counting from one).
Compare	K.1.F Compare two sets of up to 10 objects, say equal to, greater than or less than the number in the other set (complete comparison) K.1.H Describe a number from 1 to 9 using 5 as a benchmark number.
Compose/decompose	K.1.C Fluently compose and decompose numbers to 5. K.2.C Model addition by joining sets of objects that have 10 or fewer total objects. Model subtraction by separating a set of 10 or fewer objects.
<b>Algebra</b>	
Patterns	K.2.A Copy, extend, describe, and create simple repetitive patterns. K.2.B Translate a pattern among sounds, symbols, movements, and physical objects.
<b>Geometry</b>	
Shapes	K.3.A Identify, name, and describe circles, triangles, rectangles (squares as special rectangles), cubes and spheres. K.3.B Sort shapes using a sorting rule and explain the sorting rule.
Location	K.3.C Describe the location of one object relative to another object using words such as <i>in, out, over, under, above, below, between, next to, behind, and in front of</i> .
<b>Measurement</b>	
Comparisons	K.4.A Make direct comparisons using measurable attributes such as length, weight, and capacity. <i>Longer than, shorter than, taller than, heavier than, lighter than, holds more than, or holds less than</i> (make sure the comparison is complete)
<b>Problem solving</b>	
Understand	K.5.A Identify the question(s) asked in a problem. K.5.B Identify the given information that can be used to solve the problem. K.5.C Recognize when additional information is required to solve the problem.
Solve	K.5.D Select from a variety of problem-solving strategies and use one or more strategies to solve a problem. K.5.E Answer the question(s) asked in a problem.
Communicate	K.5.F Describe how the problem was solved. K.5.G Determine whether a solution to a problem is reasonable.

## First Grade

<b>Whole Numbers</b>	<b>Spring</b>
Count/Read/Order	1.1.A Count by ones forward and backward from 1 to 120, starting at any number Count by twos, fives, and tens to 100. 1.1.B Name the number that is one less or one more than any given number given verbally up to 120. 1.1.C Read aloud numbers from 0 to 1000. 1.1.D Order objects or events using ordinal numbers (up to and including twentieth). 1.1.H Group and count objects by tens, fives and twos.
Compose/decompose	1.1.F Fluently compose and decompose numbers to 10.
Place Value	1.1.G Group numbers into tens and ones in more than one way.
Compare	1.1.E Write, compare, and order numbers to 120. Use words: <i>equal to</i> , <i>greater than</i> , <i>less than</i> , <i>greatest</i> , and <i>least</i> .
Classify	1.1.I Classify a number as odd or even and demonstrate that it is odd or even.
<b>Add and Subtract</b>	
Represent	1.2.A Connect physical and pictorial representations to addition and subtraction equations. 1.2.C Represent addition and subtraction on the number line.
Equations	1.2.B Use the equal sign (=) and the word <i>equals</i> to indicate that two expressions are equivalent.
Operations	1.2.D Demonstrate the inverse relationship between addition and subtraction by undoing an addition problem with subtraction and vice versa. 1.2.E Add three or more one-digit numbers using the commutative and associative properties of addition.
Computation	1.2.F Apply and explain strategies to compute addition facts and related subtraction facts for sums to 18.
Facts	1.2.G Quickly recall addition facts and related subtraction facts for sums equal to 10.
Patterns	1.2.I Recognize, extend, and create number patterns.
<b>Algebra</b>	
Equivalency	1.2.B Use the equal sign (=) and the word <i>equals</i> to indicate that two expressions are equivalent.
Properties	1.2.E Add three or more one-digit numbers using the commutative and associative properties of addition.
Patterns	1.2.I Recognize, extend, and create number patterns.
<b>Geometry</b>	
Shapes	1.3.B Identify and name two-dimensional figures, including those in real-world contexts, regardless of size or orientation. 1.3.C Combine known shapes to create shapes and divide known shapes into other shapes.
Attributes	1.3.A Compare and sort a variety of two- and three-dimensional figures according to their geometric attributes.
<b>Measurement</b>	
Comparisons	1.4.C Compare lengths using the transitive property (If Jon is taller than Jacob, and Jacob is taller than Luisa, then Jon is taller than Luisa.) 1.4.D Use non-standard units to compare objects according to their capacities or weights. 1.4.E Describe the connection between the size of measurement unit and number of units needed to measure something.
Length	1.4.B Use a variety of non-standard units to measure length.
Capacity	1.4.A Recognize that objects used to measure an attribute (length, weight, capacity) must be consistent size. 1.4.D Use non-standard units to compare objects according to their capacities or weights.
Weight	1.4.A Recognize that objects used to measure an attribute (length, weight, capacity) must be consistent size. 1.4.D Use non-standard units to compare objects according to their capacities or weights.
Time	1.4.F Name the days of the week and the months of the year, and use a calendar to determine a day or month.

Unit size	1.4.A Recognize that objects used to measure an attribute (length, weight, capacity) must be consistent size.
<b>Statistics</b>	
Data	1.5.A Represent data using tallies, tables, picture graphs, and bar-type graphs. 1.5.B Ask and answer comparison questions about data.
<b>Problem solving</b>	
Understand	1.6.A Identify the question(s) asked in a problem. 1.6.B Identify the given information that can be used to solve a problem. 1.6.C Recognize when additional information is required to solve a problem.
Solve	1.6.D Select from a variety of problem-solving strategies and use one or more strategies to solve a problem. 1.6.E Answer the question(s) asked in the problem. 1.6.F Identify the answer(s) to the question(s) in a problem.
Communicate	1.6.G Describe how a problem was solved. 1.6.H Determine whether a solution to a problem is reasonable.

## Second Grade

<b>Place Value</b>	<b>Spring</b>
Count/Order	2.1.A Count by tens or hundreds forward and backward from 1 to 1,000 starting at any number. 2.1.F Compare and order numbers from 0 to 1,000.
Represent	2.1.B Connect place value models with their numerical equivalents to 1000.
Value/Expanded Form	2.1.C Identify the ones, tens, and hundreds place in a number and the digits occupying them. 2.1.D Write three-digit numbers in expanded form 2.1.E Group three-digit numbers into hundreds, tens and ones in more than one way.
<b>Add and Subtract</b>	
Facts	2.2.A Quickly recall basic addition facts and related subtraction facts for sums through 20.
Computation	2.2.C Add and subtract two-digit numbers efficiently and accurately using a procedure that works with all two-digit numbers and explain why the procedure works. 2.2.D Add and subtract two-digit numbers mentally and explain the strategies used.
Operations	Continue to relate addition to subtraction
Estimate	2.2.E Estimate sums and differences
<b>Fractions</b>	
Count/ Read	Counting fractions and oral introduction to naming fractions (developmental continuum)
Represent	Juan, Chan and Hortense are going to share a large cookie in the shape of a circle. Draw a picture that shows how you can cut up the cookie in three fair shares, and tell how big each piece is as a fraction of the whole cookie.
Interpret	2.4.E Interpret a fraction as a number of equal parts of a whole or set.
<b>Multiply and Divide</b>	
Represent	2.4.C Model and describe multiplication situations in which sets of equal size are joined. 2.4.D Model and describe division situations in which sets are separated into equal parts.
<b>Algebra</b>	
Equations	2.2.G Solve equations in which the unknown number appears in a variety of positions.
Patterns	2.2.F Create and state a rule for patterns that can be generated by addition and extend the pattern.
Properties	Zero property, turn-around facts (commutative property of addition), adding and subtracting the same number to leave the sum unchanged, subtracting numbers in different orders.
<b>Geometry</b>	
Properties	2.4.A Solve problems involving properties of two-and three-dimensional figures.
<b>Measurement</b>	
Money	2.2.H Name each standard US coin, write its value using the \$ sign and the ¢ sign, and name combinations of other coins with the same total value. 2.2.I Determine the value of a collection of coins totaling less than \$ 1.00.
Length	2.3.A Identify objects that represent or approximate standard units and use them to measure length. 2.3.B Estimate length using metric and US customary units. 2.3.C Measure length to nearest whole unit in both metric and US customary units.
Time	2.3.D Describe the relative size among minutes, hours, days, weeks, months, and years. 2.3.E Use both analog and digital clocks to tell time to the minute.

<b>Statistics</b>	
Data	2.4.B Collect, organize, represent, and interpret data in bar graphs and picture graphs.
<b>Problem solving</b>	
Understand	<p>2.2.B Solve addition and subtraction word problems that involve joining, separating, and comparing and verify the solution.</p> <p>2.5.A Identify the question(s) asked in a problem and any other questions that need to be answered in order to solve a problem.</p> <p>2.5.B Identify the given information that can be used to solve a problem.</p> <p>2.5.C Recognize when additional information is required to solve a problem.</p>
Solve	<p>2.2.B Solve addition and subtraction word problems that involve joining, separating, and comparing and verify the solution.</p> <p>2.5.D Select from a variety of problem-solving strategies and use one or more strategies to solve a problem</p> <p>2.5.E Identify the answer(s) to the question(s) in a problem</p>
Communicate	<p>2.2.B Solve addition and subtraction word problems that involve joining, separating, and comparing and verify the solution.</p> <p>1.6.F Describe how a problem was solved.</p> <p>1.6.G Determine whether a solution to a problem is reasonable.</p>

## Third Grade

<b>Add and Subtract</b>	<b>Spring</b>
Computation	3.1.C Fluently and accurately add and subtract whole numbers using the standard regrouping algorithms.
Estimate	3.1.D Estimate sums and differences to approximate solutions to problems and determine reasonableness of answers.
<b>Place Value</b>	
Read/Write/Represent	3.1.A Read, write, compare, order, and represent numbers to 10,000 using numbers, words, and symbols
Compare/Order	3.1.A Read, write, compare, order, and represent numbers to 10,000 using numbers, words, and symbols
Round	3.1.B Round whole numbers through 10,000 to the nearest ten, hundred, and thousand.
<b>Fractions</b>	
Write/Represent/Identify	3.3.A Represent fractions that have denominators of 2, 3, 4, 5, 6, 8, 9, 10, and 12 as parts of a whole, parts of a set, and points on the number line. 3.3.C Represent and identify equivalent fractions with denominators of 2, 3, 4, 5, 6, 8, 9, 10, and 12.
Compare/ Order	3.3.B Compare and order fractions that have denominators of 2, 3, 4, 5, 6, 8, 9, 10, and 12.
<b>Multiply and Divide</b>	
Represent	3.2.A Represent multiplication as repeated addition, arrays, counting by multiples, and equal jumps on the number line, and connect each representation to the related equation. 3.2.B Represent division as equal sharing, repeated subtraction, equal jumps on the number line, and formation of equal groups of objects, and connect each representation to the related equation.
Facts	3.2.E Quickly recall those multiplication facts for which one factor is 1, 2, 5, 10 and the related division facts.
Computations	3.2.D Apply and explain strategies to compute multiplication facts to 10 x 10 and the related division facts. 3.2.G Multiply any number from 11 through 19 by a single digit number using the distributive property and place value concepts.
Operations	3.2.C Determine products, quotients, and missing factors, using the inverse relationship between multiplication and division.
<b>Algebra</b>	
Equations	3.5.A Determine whether two expressions are equal and use “=” to denote equality.
Patterns	Review, reinforce and develop pattern skills.
Properties	3.2.G Multiply any number from 11 through 19 by a single digit number using the distributive property and place value concepts.
<b>Geometry</b>	
Lines	3.4.A Identify and sketch parallel, intersecting, and perpendicular lines and line segments. 3.4.B Identify and sketch right angles.
Properties	3.4.C Identify and describe special types of quadrilaterals ( <i>parallelograms, including rectangles, rhombi, squares as special rectangles &amp; rhombi, and trapezoids and kites</i> ).
<b>Measurement</b>	
Perimeter/Length	3.4.D Measure and calculate perimeters of quadrilaterals.
Temperature	3.5.B Measure temperature in degrees Fahrenheit and degrees Celsius using a thermometer.
Weight/Mass	3.5.C Estimate, measure, and compare weight and mass using appropriate-sized US customary and metric units.

Capacity	3.5.D Estimate, measure, and compare capacity using appropriate-sized US customary and metric units.
Time/Money	Content to review
<b>Statistics</b>	
Data	3.5.E Construct and analyze pictographs, frequency tables, line plots, and bar graphs.
Probability	3.6.J Make and test conjectures based on data (or information) collected from explorations and experiments.
<b>Problem solving</b>	
Understand	<p>3.6.A Determine the question(s) to be answered given a problem situation.</p> <p>3.6.B Identify information that is given in a problem and decide whether it is necessary or unnecessary to the solution of the problem.</p> <p>3.6.C Identify missing information that is needed to solve a problem.</p> <p>3.6.D Determine whether a problem to be solved is similar to previously solved problems, and identify possible strategies for solving the problem.</p> <p>3.1.E Solve single- and multi-step word problems involving addition and subtraction of whole numbers and verify solutions.</p>
Solve	<p>3.6.E Select and use one or more appropriate strategies to solve a problem.</p> <p>3.1.E Solve single- and multi-step word problems involving addition and subtraction of whole numbers and verify solutions.</p> <p>3.2.F Solve and create word problems that match multiplication or division equations.</p> <p>3.2.H Solve single- and multi-step word problems involving multiplication and division and verify the solutions.</p> <p>3.3.D Solve single- and multi-step word problems involving comparison of fractions and verify the solutions.</p> <p>3.4.E Solve single- and multi-step word problems involving perimeters of quadrilaterals and verify the solutions.</p>
Communicate	<p>3.6.F Represent a problem situation using words, numbers, pictures, physical objects, or symbols.</p> <p>3.6.G Explain why a specific problem-solving strategy or procedure was used to determine a solution.</p> <p>3.6.H Analyze and evaluate whether a solution is reasonable, is mathematically correct, and answers the question</p> <p>3.6.I Summarize mathematical information, draw conclusions, and explain reasoning.</p> <p>3.1.E Solve single- and multi-step word problems involving addition and subtraction of whole numbers and verify solutions.</p> <p>3.2.H Solve single- and multi-step word problems involving multiplication and division and verify the solutions.</p>

## Fourth Grade

<b>Multiplication</b>	<b>Spring</b>
Facts/Factors and Multiples	4.1.A Quickly recall multiplication facts through 10 x 10 and the related division facts. 4.1.B Identify factors and multiples of a number.
Representation	4.1.C Represent multiplication of a two-digit number by a two-digit number with place value models.
Computation (multi-digit)	4.1.F Fluently and accurately multiply up to a three-digit number by one- and two digit numbers using the standard multiplication algorithm. 4.1.G Mentally multiply two-digit numbers by numbers through 10 and by multiples of 10.
Estimate	4.1.H Estimate products to approximate solutions to problems and determine reasonableness of answers.
Place value	4.1.D Multiply by 10, 100, and 1,000. 4.1.E Compare the values represented by digits in whole numbers using place value.
Operations (division)	Division problems should reinforce connections between multiplication and division.
<b>Decimals/Fractions</b>	
Representation	4.2.A Represent decimals through hundredths with place value models, fraction equivalents, and the number line.
Read/Write	4.2.B Read, write, compare, and order decimals through hundredths.
Equivalence	4.2.C Convert a mixed number to a fraction and vice versa, and visually represent the number. 4.2.D Convert a decimal to a fraction and vice versa, and visually represent the number. 4.2.F Write a fraction equivalent to a given fraction. 4.2.G Simplify fractions using common factors.
Compare/Order	4.2.B Read, write, compare, and order decimals through hundredths. 4.2.E Compare and order decimals and fractions (including mixed numbers) on the number line, lists, and using the symbols $<$ , $>$ , or $=$ .
Rounding	4.2.H Round fractions and decimals to the nearest whole number.
<b>Algebra</b>	
Equations	4.4.A Represent an unknown quantity in simple expressions, equations, and inequalities using letters, boxes, and other symbols.
Properties	Multiplication as repeated addition, commutative property of addition and multiplication (not subtraction), part-part-total for addition and subtraction.
<b>Geometry</b>	
Congruence	4.3.A Determine congruence of two-dimensional figures.
Properties	4.3.E Demonstrate that rectangles with the same area can have different perimeters, and that rectangles with the same perimeter can have different areas.
Coordinate	4.4.D Graph and identify points in the first quadrant of the coordinate plane using ordered pairs.
<b>Measurement</b>	
Area	4.3.B Determine the approximate area of a figure using square units. 4.3.C Determine the perimeter and area of a rectangle using formulas, and explain why the formulas work. 4.3.D Determine the areas of figures that can be broken down into rectangles.
Perimeter	4.3.C Determine the perimeter and area of a rectangle using formulas, and explain why the formulas work.

Time	4.4.C Estimate and determine elapsed time using a calendar, a digital clock, and an analog clock.
Unit conversions	Conversions will be used to meet 4.4.B.
<b>Statistics</b>	
Data	Data is gathered to meet 4.4.E
Central measure	4.4.E Determine the median, mode and range of a set of data and describe what each measure indicates about the data.
<b>Probability</b>	
Represent	4.4.G Determine a simple probability from a context that includes a picture. 4.4.H Display the results of probability experiments and interpret the results.
Interpret	4.5.J Make and test conjectures based on data (or information) collected from explorations and experiments. 4.4.F Describe and compare the likelihood of events.
<b>Problem solving</b>	
Understand	4.5.A Determine the question(s) to be answered given a problem situation. 4.5.B Identify the information that is given in a problem and decide whether it is essential or extraneous to the solution of the problem. 4.5.C Identify missing information that is needed to solve a problem. 4.5.D Determine whether a problem to be solved is similar to previously solved problems, and identify possible strategies for solving the problem.
Solve	4.5.E Select and use one or more appropriate strategies to solve a problem and explain why that strategy was chosen. 4.1.I Solve single- and multi-step word problems involving multi-digit multiplication and verify the solutions. 4.2.I Solve single- and multi-step word problems involving comparison of decimals and fractions (including mixed numbers), and verify the solutions. 4.3.F Solve single- and multi- step word problems involving perimeters and areas of rectangles and verify the solutions. 4.4.B Solve single- and multi-step problems involving familiar unit conversions, including time, within either the US customary or metric system.
Communicate	4.5.F Represent a problem situation using words, numbers, pictures, physical objects, or symbols. 4.5.G Explain why a specific problem-solving strategy or procedure was used to determine a solution. 4.5.H Analyze and evaluate whether a solution is reasonable, is mathematically correct, and answers the question. 4.5.I Summarize mathematical information, draw conclusions, and explain reasoning.

## Fifth Grade

<b>Multiply and Divide</b>	<b>Spring</b>
Represent	5.1.A Represent multi-digit division using place value models and connect the representation to the related equation.
Classify	5.5.A Classify numbers as prime or composite.
Computation	5.1.E Mentally divide two-digit numbers by one-digit divisors and explain the strategies used. 5.1.C Fluently and accurately divide up to a four-digit number by one- or two-digit divisors using the standard long division algorithm.
Place value	5.1.B Determine quotients for multiples of 10 and 100 by applying knowledge of place value and properties of operations.
Estimate	5.1.D Estimate quotients to approximate solutions and determine reasonableness of answers in problems involving up to two-digit divisors.
GCF/LCM	5.2.D Determine the greatest common factor and the least common multiple of two or more whole numbers.
<b>Decimals/Fractions</b>	
Represent	5.2.A Represent addition and subtraction of fractions and mixed numbers using visual and numerical models, and connect the representation to the related equation. 5.2.B Represent addition and subtraction of decimals using place value models and connect the representation to the related equation.
Equivalence	5.2.C Given two fractions with unlike denominators, rewrite the fractions with a common denominator.
Computation	5.2.E Fluently and accurately add and subtract fractions, including mixed numbers. 5.2.F Fluently and accurately add and subtract decimals.
Estimate	5.2.G Estimate sums and differences of fractions, mixed numbers, and decimals to approximate solutions to problems and determine reasonableness of answers.
<b>Algebra</b>	
Equations	5.4.C Write algebraic expressions that represent simple situations and evaluate the expressions, using substitution when variables are involved.
Patterns/Function	5.4.A Describe and create a rule for numerical and geometric patterns and extend the patterns. 5.4.B Write a rule to describe the relationship between two sets of data that are linearly related.
Properties	Distributive property of multiplication over addition, commutative property, multiplying one factor and dividing the other by the same number results in the same answer, order of operations, associative property for multiplication
<b>Geometry</b>	
Properties	5.3.G Draw quadrilaterals and triangles from given information about sides and angles. 5.3.H Determine the number and location of lines of symmetry in triangles and quadrilaterals.
Classify	5.3.A Classify quadrilaterals. 5.3.C Identify, describe, and classify triangles by angle measure and number of congruent sides.
Angles	5.3.B Identify, sketch, and measure acute, right, and obtuse angles.

Coordinate	5.4.D Graph ordered pairs in the coordinate plane for two sets of data related by a linear rule and draw the line they determine.
<b>Measurement</b>	
Area	5.3.D Determine the formula for the area of a parallelogram by relating it to the area of a rectangle. 5.3.E Determine the formula for the area of a triangle by relating it to the area of a parallelogram. 5.3.F Determine the perimeters and areas of triangles and parallelograms.
Perimeter	5.3.F Determine the perimeters and areas of triangles and parallelograms.
<b>Statistics</b>	
Data	5.5.C Construct and interpret line graphs.
Central measure	5.5.B Determine and interpret the mean of a small data set of whole numbers.
<b>Probability</b>	
	5.6.J Make and test conjectures based on data (or information) collected from explorations and experiments.
<b>Problem solving</b>	
Understand	5.6.A Determine the question(s) to be answered given a problem situation. 5.6.B Identify information that is given in a problem and decide whether it is essential or extraneous to the solution of the problem. 5.6.C Determine whether additional information is needed to solve the problem. 5.6.D Determine whether a problem to be solved is similar to previously solved problems, and identify possible strategies for solving the problem.
Solve	5.1.F Solve single- and multi-step word problems involving multi-digit division and verify the solutions. 5.2.H Solve single- and multi-step word problems involving addition and subtraction of whole numbers, fractions (including mixed numbers), and decimals, and verify the solutions. 5.3.I Solve single- and multi-step word problems about the perimeters and areas of quadrilaterals and triangles and verify the solutions. 5.6.E Select and use one or more appropriate strategies to solve a problem, and explain the choice of strategy.
Communicate	5.6.F Represent a problem situation using words, numbers, pictures, physical objects, or symbols. 5.6.G Explain why a specific problem-solving strategy or procedure was used to determine a solution. 5.6.H Analyze and evaluate whether a solution is reasonable, is mathematically correct, and answers the question. 5.6.I Summarize mathematical information, draw conclusions, and explain reasoning.

