



Correlation of *Core Knowledge® Sequence* & Colorado Grade Level Expectations

Core Knowledge® Content (Mathematics-Grade 2)	Colorado Grade Level Expectations (Grade 2-Mathematics)
I. Numbers and Number Sense	
▪	2.1.1.A using objects and pictures, represent whole numbers including odds and evens from 0 to 1,000 2.1.2.A read and write numerals from 0 to 1,000 in meaningful contexts
▪	2.1.2.B read and write the number words for zero to one hundred
▪	2.1.1.B apply equalities and inequalities with whole numbers from 0 to 1,000 using the symbols =, <, > 2.1.3.E sequence selected whole numbers from 0 to 1,000
▪	2.1.3.A count by 1's, 2's, 5's, and 10's 2.1.3.B count from 1 to 1,000 by 100's 2.1.3.C starting with any whole number less than 1,000, count forward to 1,000
▪	2.1.3.F locate and label the halfway point between whole numbers on the number line
▪	2.3.1.B display data using tallies, bar graphs, pictographs, or tables
▪	2.1.3.D use ordinal positions for first through thirty-first
▪	2.1.1.A using objects and pictures, represent whole numbers including odds and evens from 0 to 1,000
▪	
▪	2.1.2.D order according to place value (for example, given 9 ones, 5 tens, and 4 hundreds, the student can write the number 459; given the number 459, the student can show 4 hundreds, 5 tens, and 9 ones)
▪	2.1.2.E write three-digit numbers in expanded form (for example, $459 = 400 + 50 + 9$) 2.1.2.D order according to place value (for example, given 9 ones, 5 tens, and 4 hundreds, the student can write the number 459; given the number 459, the student can show 4 hundreds, 5 tens, and 9 ones)
▪	
▪	
▪	2.3.1.B display data using tallies, bar graphs, pictographs, or tables
▪	2.2.1.A verbally describe patterns 2.2.1.B create and extend patterns using symbols, such as words and numbers
▪	
II. Fractions	
▪	2.1.1.C using concrete materials, demonstrate the meanings of fractions, including halves, thirds, fourths, eighths, and tenths of sets and wholes
▪	
III. Money	
▪	
▪	
▪	2.1.1.D demonstrate equivalencies of coins (for example, 5 nickels = 1 quarter) 2.1.1.E combine coins up to \$1.00 (for example, $20¢ = 2 \text{ dimes} = 1 \text{ dime} + 2 \text{ nickels} = 4 \text{ nickels}$)
▪	
IV. Computation	
A. Addition	

Correlation of the *Core Knowledge Sequence* and the Colorado Grade Level Expectations

▪	2.6.3.A demonstrate understanding of basic addition and subtraction facts 2.6.3.B demonstrate automatic recall of basic addition and subtraction facts
▪	
▪	
▪	
▪	2.1.5.A estimate sums and differences first by rounding to the nearest ten prior to performing the operation, and then using the estimate to determine the reasonableness of the solution 2.6.4.A use estimation techniques such as rounding and compatible number (numbers whose sum is 10) before performing operations
▪	2.6.1.A using concrete materials, demonstrate and verbally explain addition of whole numbers with regrouping for two-digit numbers 2.6.4.B using paper-and-pencil, demonstrate addition of two-digit whole numbers with and without regrouping
▪	
▪	
▪	
B. Subtraction	
▪	2.6.1.E using concrete materials or pictures, demonstrate the inverse relationship of addition and subtraction of whole numbers
▪	2.6.3.C use sums on an addition facts table to locate all addends for a particular sum (for example, $7 = 0 + 7$, $7 = 1 + 6$)
▪	2.6.3.A demonstrate understanding of basic addition and subtraction facts 2.6.3.B demonstrate automatic recall of basic addition and subtraction facts
▪	2.1.5.A estimate sums and differences first by rounding to the nearest ten prior to performing the operation, and then using the estimate to determine the reasonableness of the solution 2.6.4.A use estimation techniques such as rounding and compatible number (numbers whose sum is 10) before performing operations
▪	
▪	2.6.1.B using concrete materials, demonstrate and verbally explain subtraction of whole numbers without regrouping for two-digit numbers 2.6.4.C using paper-and-pencil, demonstrate subtraction of two-digit whole numbers without regrouping
▪	
C. Introduction to Multiplication	
▪	
▪	
▪	
▪	2.6.1.C using concrete materials or pictures, demonstrate multiplication without regrouping of whole numbers (for example, using arrays or grouping sets of objects)
▪	
▪	
D. Solving Problems and Equations	

Correlation of the *Core Knowledge Sequence* and the Colorado Grade Level Expectations

▪	2.4.4.A draw a picture or diagram to solve a problem (for example, draw a map of the room to show how to get from a desk to the reading area; draw a map of the neighborhood) 2.6.5.A given a real-world problem-solving situation, use the correct operation (addition or subtraction) and appropriate method (mental arithmetic, estimation, paper-and-pencil, calculator, or computer) to solve the problem
▪	
V. Measurement	
A. Linear Measure	
▪	2.5.1.C estimate and measure the length of objects to the nearest half inch, foot, yard, centimeter, and meter 2.5.1.H describe the units for measuring time, length, capacity, weight, and temperature 2.5.5.A select the appropriate units of measurement of time, length, capacity, weight, and temperature
▪	2.5.1.I know the number of hours in a day, months in a year, inches in a foot, feet in a yard, and cups in a pint
▪	
▪	2.4.3.A measure the lengths of the sides of triangles, squares, and rectangles to the nearest half inch and centimeter 2.5.1.C estimate and measure the length of objects to the nearest half inch, foot, yard, centimeter, and meter
▪	2.5.1.C estimate and measure the length of objects to the nearest half inch, foot, yard, centimeter, and meter
B. Weight (Mass)	
▪	2.5.2.A compare objects according to the measurable attributes of length, capacity, weight, and temperature
▪	2.5.1.F estimate and weigh an object on a balance with a non-standard unit and use a scale to measure an object to the nearest pound 2.5.1.H describe the units for measuring time, length, capacity, weight, and temperature 2.5.5.A select the appropriate units of measurement of time, length, capacity, weight, and temperature
C. Capacity (Volume)	
▪	2.5.1.E estimate and measure the capacity of a container in cups, pints, quarts, and gallons
▪	2.5.1.E estimate and measure the capacity of a container in cups, pints, quarts, and gallons 2.5.1.H describe the units for measuring time, length, capacity, weight, and temperature 2.5.5.A select the appropriate units of measurement of time, length, capacity, weight, and temperature
▪	
D. Temperature	
▪	2.5.1.G measure temperature to the nearest 2 degrees and 10 degrees Fahrenheit 2.5.1.H describe the units for measuring time, length, capacity, weight, and temperature 2.5.5.A select the appropriate units of measurement of time, length, capacity, weight, and temperature
▪	
E. Time	
▪	2.5.1.A tell time to the nearest fifteen minutes, using an analog and digital clock 2.5.1.H describe the units for measuring time, length, capacity, weight, and temperature 2.5.5.A select the appropriate units of measurement of time, length, capacity, weight, and temperature
▪	2.5.1.B use AM and PM
▪	
▪	
▪	2.5.1.H describe the units for measuring time, length, capacity, weight, and temperature
▪	

Correlation of the *Core Knowledge Sequence* and the Colorado Grade Level Expectations

VI. Geometry	
▪	
▪	2.4.2.A describe attributes of circles, triangles, and quadrilaterals such as squares and rectangles
▪	2.4.3.B measure the perimeter of triangles, squares, and rectangles using non-standard and standard units 2.5.1.D estimate and measure the perimeter of a figure using non-standard and standard units
▪	2.4.2.C recognize the three-dimensional figures: cubes, spheres, cylinders, cones, and pyramids
▪	2.4.1.A identify congruent figures from a selection of similar figures
▪	
▪	
▪	2.4.1.C describe symmetry 2.4.1.D identify lines of symmetry of squares and rectangles 2.4.4.C investigate and predict the geometric shapes that result from cutting along a line of symmetry
Grade level or other area Grade Level Expectations are covered in the <i>Core Knowledge Sequence</i>	Grade Level Expectations not directly covered in the <i>Core Knowledge Sequence</i>, but can be covered in other areas
Grade 1: Mathematics: Patterns and Classification	2.1.2.C group objects by ones, tens, and hundreds
Grade 4: Mathematics: Numbers and Number Sense	2.1.3.G locate and label a point in the first quadrant of the coordinate plane (for example, locate the point (4,1))
Grade 1: Mathematics: Computation and Grade 5: Mathematics: Computation	2.1.4.A verify the commutative and associative properties of addition of whole numbers
This can be covered in many areas	2.1.4.B verify that subtraction of whole numbers is not commutative
This can be covered in many areas	2.2.1.C find missing elements of a repeating pattern (for example, 1, 3, __, 7)
Grade 4: Mathematics: Numbers and Number Sense	2.2.2.A match tables and graphs of points on a coordinate plane
This can be covered in many areas	2.2.3.A verbally describe the relationship between a graph and a table
This can be covered in many areas	2.2.4.A using concrete or pictorial patterns, determine how the change in one variable affects the change in another (for example, how changing the number of hands changes the number of fingers)
This can be covered in many areas	2.3.1.A design a survey and collect data
This can be covered in many areas	2.3.1.C transfer the same set of data to different displays (for example, from a table to a bar graph)
This can be covered in many areas	2.3.2.A interpret and compare data from displays, using the terms "least often," "most often," and "how much more" or "how much less"
This can be covered in many areas	2.3.3.A use survey data to make predictions about a larger similar population (for example, from a class survey make a prediction about all second graders in the school)
Grade 3: Mathematics: Numbers and Number Sense	2.3.3.B roll a number cube to generate and record results
This can be covered in many areas	2.3.3.C analyze the results (including likely, more likely, less likely, and unlikely outcomes) of spinning a spinner
This can be covered in many areas	2.3.3.D recognize if different spinners are fair or unfair
Grade 3: Mathematics: Numbers and Number Sense	2.3.4.A determine the number of outcomes when spinning a spinner
This can be covered in many areas	2.3.4.B using manipulatives or pictures, determine the possible combinations of matching a set containing two elements with a different set containing two elements
This can be covered in many areas	2.4.1.B slide, flip, and turn concrete materials such as tangrams and pattern blocks to create and reproduce simple designs
Grade 3: Mathematics: Geometry	2.4.2.B identify right angles and not-right angles
Grade 3: Mathematics: Geometry	2.4.2.D draw right angles and not-right angles
This can be covered in many areas	2.4.4.B investigate and predict which pattern block shapes can be formed from the pattern block triangles
This can be covered in many areas	2.5.2.B order objects according to the measurable attributes of length, capacity, weight, and temperature

Correlation of the *Core Knowledge Sequence* and the Colorado Grade Level Expectations

This can be covered in many areas	2.5.2.C compare and order various times
Grade 1: Mathematics: Measurement	2.5.4.A use familiar objects as referents for measurement (for example, the length of the student's index finger is about two paper clips)
Grade 3: Mathematics: Computation: Division	2.6.1.D using concrete materials or pictures, demonstrate division of whole numbers without remainders as partitioning of sets
This can be covered in many areas	2.6.1.F using concrete materials or pictures, demonstrate multiplication of whole numbers as repeated addition
Grade 4: Mathematics: Fractions and Decimals	2.6.2.A using concrete materials or pictures, add and subtract halves, thirds, and fourths
Grade 3: Mathematics: Money	2.6.2.B find the total value of coins not to exceed \$1.00
This can be covered in many areas	2.6.5.B determine from real-world problems whether an estimated or exact sum or difference is acceptable