

**Developing Number Concepts Series:
Correlation to
Virginia Mathematics Standards of Learning**

Book 1: Counting, Comparing, and Pattern
Book 2: Addition and Subtraction
Book 3: Place Value, Multiplication, and Division

Standard ¹	Book 1	Book 2	Book 3
Grade K			
Number and Number Sense			
K.1: The student will . . .			
a. Tell how many are in a given set of 20 or fewer objects by counting orally (K.1.a)	1-1, 1-2, 1-3, 1-4, 1-6, 1-7, 1-8, 1-9, 1-10, 1-11, 1-12, 1-14, 1-17, 1-18, 1-19, 1-21 thru 1-34, 1-36, 1-37, 1-38, 1-39, 1-40, 1-41, 3-5, 3-9, 3-10, 3-12, 3-14, 3-16 thru 3-22		
b. Read, write, and represent numbers from 0 through 20 (K.1.b)	1-4, 1-10, 1-11, 1-12, 1-14, 1-17, 1-18, 1-19, 1-21 thru 1-41, 3-5, 3-6, 3-9, 3-10, 3-12		
K.2: The student, given no more than three sets, each set containing 10 or fewer concrete objects, will . . .			
a. Compare and describe one set as having more, fewer, or the same number of objects as the other set(s) (K.2.a)	1-5, 1-10, 1-12, 1-13, 1-15, 1-20, 1-27, 1-28, 1-35, 3-1 thru 3-22		
b. Compare and order sets from least to greatest and greatest to least (K.2.b)	3-1 thru 3-22		
K.3: The student will . . .			
a. Count forward orally by ones from 0 to 100 (K.3.a)	1-26, 1-37		

¹ Standards not correlated to the activities in this series are not listed.

Standard	Book 1	Book 2	Book 3
Number and Number Sense (cont.)			
c. Identify the number after, without counting, when given any number between 0 and 100 and identify the number before, without counting, when given any number between 1 and 10 (K.3.c)	1-5, 1-10, 1-12, 1-13, 1-15, 1-20, 1-27, 1-28, 1-35, 3-1 thru 3-22		
K.4: The student will . . .			
a. Recognize and describe with fluency part-whole relationships for numbers up to 5 (K.4.a)	1-16, 1-17, 1-18, 1-19, 1-35, 2-19, 3-2, 3-3, 3-6, 3-22	1-1 thru 1-9, 1-12, 1-16, 1-17, 2-3 thru 2-26, 3-1 thru 3-27	
b. Investigate and describe part-whole relationships for numbers up to 10 (K.4.b)	1-16, 1-17, 1-18, 1-19, 1-35, 2-19, 3-2, 3-3, 3-6, 3-22	1-1, 1-2, 1-3, 1-4, 1-5, 1-6, 1-7, 1-8, 1-9, 1-12, 1-16, 1-17, 2-3 thru 2-26, 2-22, 2-23, 3-1 thru 3-27	
Computation and Estimation			
K.6: The student will model and solve single-step story and picture problems with sums to 10 and differences within 10, using concrete objects.		1-13, 1-16, 1-17, 2-12, 2-18, 3-6	
Measurement and Geometry			
K.9: The student will compare two objects or events, using direct comparisons, according to one or more of the following attributes: length (longer, shorter), height (taller, shorter), weight (heavier, lighter), temperature (hotter, colder), volume (more, less), and time (longer, shorter).	1-38, 1-39, 1-40, 1-41, 3-5		
Patterns and Algebra			
K.12: The student will sort and classify objects according to one attribute.	1-38 thru 1-41		
K.13: The student will identify, describe, extend, create, and transfer repeating patterns.	2-1 thru 2-21		

Standard	Book 1	Book 2	Book 3
Grade 1			
Number and Number Sense			
1.1: The student will . . .			
a. Count forward orally by ones to 110, starting at any number between 0 and 110 (1.1.a)	1-21, 1-25, 1-26, 1-27		1-11, 1-20, 1-22, 1-32, 1-33, 1-36, 1-37, 1-39, 1-40, 1-41
b. Write the numerals 0 to 110 in sequence and out-of-sequence (1.1.b)	1-4, 1-18, 1-19, 1-21, 1-22, 1-23, 1-24, 1-25, 1-26, 1-27, 1-29, 1-30, 1-31, 1-32, 1-33, 1-34, 1-35, 1-36, 1-37, 1-38, 1-39, 1-40, 1-41		
d. Count forward orally by ones, twos, fives, and tens to determine the total number of objects to 110 (1.1.d)			1-13, 1-14, 1-23
1.2: The student, given up to 110 objects, will . . .			
a. Group a collection into tens and ones and write the corresponding numeral (1.2.a)		3-35, 3-37	1-1 thru 1-8
Computation and Estimation			
1.6: The student will create and solve single-step story and picture problems using addition and subtraction within 20.		1-11, 2-18	
1.7: The student will . . .			
a. Recognize and describe with fluency part-whole relationships for numbers up to 10 (1.7.a)	1-35, 3-11, 3-12	1-11, 1-14, 1-15, 2-18, 2-20, 2-25, 2-27, 3-13, 3-14, 3-15, 3-16, 3-19, 3-20, 3-21, 3-22, 3-23, 3-24, 3-25, 3-26, 3-27 thru 3-37	
b. Demonstrate fluency with addition and subtraction within 10 (1.7.b)		2-20, 2-25, 2-27, 3-14, 3-15, 3-18, 3-20, 3-21, 3-22, 3-24, 3-26, 3-27, 3-28 thru 3-37	

Standard	Book 1	Book 2	Book 3
Patterns and Algebra			
1.13: The student will sort and classify concrete objects according to one or two attributes.	1-38 thru 1-41		
1.14: The student will identify, describe, extend, create, and transfer growing and repeating patterns.	2-1 thru 2-21		
1.15: The student will demonstrate an understanding of equality through the use of the equal symbol.		1-4, 1-5, 1-9, 1-10, 1-16, 1-17, 2-13, 2-15 thru 2-24, 3-14, 3-15, 3-17 thru 3-26	
Grade 2			
Number and Number Sense			
2.1: The student will . . .			
a. Read, write, and identify the place value of each digit in a three-digit numeral, with and without models (2.1.a)			1-9, 1-10, 1-18, 1-24 thru 1-33, 1-35, 1-36, 1-37, 1-39, 1-40, 1-41, 1-42, 1-43, 1-50
b. Identify the number that is 10 more, 10 less, 100 more, and 100 less than a given number up to 999 (2.1.b)			1-12, 1-20, 1-21, 1-22, 1-47, 1-48, 1-49, 1-51
c. Compare and order whole numbers between 0 and 999 (2.1.c)	3-14, 3-15, 3-16, 3-17, 3-18, 3-19, 3-20		1-32, 1-33, 1-34, 1-35, 1-36, 1-37, 1-38, 1-39, 1-40, 1-42
2.2: The student will . . .			
b. Count backward by tens from 120 (2.2.b)			1-12, 1-20, 1-21, 1-22, 1-48, 1-51
c. Use objects to determine whether a number is even or odd (2.2.b)		3-36	

Standard	Book 1	Book 2	Book 3
Computation and Estimation			
2.5: The student will . . .			
a. Recognize and use the relationships between addition and subtraction to solve single-step practical problems, with whole numbers to 20 (2.5.a)	1-35, 3-11, 3-12	1-11, 1-14, 1-15, 2-18, 2-20, 2-21, 2-25, 2-27, 3-13 thru 3-3-37	1-13, 1-14, 1-43, 1-44, 1-45, 1-47, 1-48, 1-49, 1-50, 1-52 thru 1-58
b. Demonstrate fluency with addition and subtraction within 20 (2.5.b)		1-11, 1-14, 1-15, 2-20, 2-21, 2-25, 2-27, 3-14, 3-15, 3-17, 3-18, 3-19, 3-20, 3-21, 3-22, 3-24, 3-25, 3-26, 3-27, 3-28 thru 3-37	All activities
2.6: The student will . . .			
a. Estimate sums and differences (2.6.a)			1-27, 1-30, 1-33
b. Determine sums and differences using various methods (2.6.b)			1-13, 1-14, 1-43, 1-44, 1-45, 1-47, 1-48, 1-49, 1-50, 1-52 thru 1-59
c. Create and solve single-step and two-step practical problems involving addition and subtraction. (2.6.c)			1-13, 1-14, 1-43, 1-44, 1-45, 1-46, 1-47, 1-48, 1-49, 1-50, 1-52 thru 1-59
Measurement and Geometry			
2.8: The student will estimate and measure . . .			
a. Length to the nearest inch. (2.8.a)			1-34, 1-38, 1-39, 1-40, 1-41, 1-54, 1-55
Probability and Statistics			
2.15: The student will . . .			
a. Collect, organize, and represent data in pictographs and bar graphs(2.15.a)		2-26, 3-18	
b. Read and interpret data represented in pictographs and bar graphs (2.15.b)		2-26, 3-18	

Standard	Book 1	Book 2	Book 3
Patterns, Functions, and Algebra			
2.16: The student will identify, describe, create, extend, and transfer patterns found in objects, pictures, and numbers.			1-1 thru 1-23, 2-18 thru 2-21, 3-4
2.17: The student will demonstrate an understanding of equality through the use of the equal symbol and the use of the not equal symbol.		1-4, 1-5, 1-9, 1-10, 1-16, 1-17, 2-13, 2-15 thru 2-24, 3-14, 3-15, 3-17 thru 3-26	
Grade 3			
Computation and Estimation			
3.3: The student will . . .			
b. Create and solve single-step and multistep practical problems involving sums or differences of two whole numbers, each 9,999 or less. (3.3.b)			1-49, 1-50, 1-51 thru 1-56, 1-58, 2-25
3.4: The student will . . .			
a. Represent multiplication and division through 10×10 , using a variety of approaches and models (3.4.a)			2-1 thru 2-25, 3-1 thru 3-15
b. Create and solve single-step practical problems that involve multiplication and division through 10×10 (3.4.b)			2-1 thru 2-25, 3-1 thru 3-15
c. Demonstrate fluency with multiplication facts of 0, 1, 2, 5, and 10; and (3.4.c)			2-1 thru 2-25
d. Solve single-step practical problems involving multiplication of whole numbers, where one factor is 99 or less and the second factor is 5 or less (3.4.d)			2-1 thru 2-25
Patterns, Functions, and Algebra			
3.16: The student will identify, describe, create, and extend patterns found in objects, pictures, numbers and tables.			1-1 thru 1-8, 1-12, 1-13, 1-14, 1-15, 1-16, 1-17, 1-19, 1-21, 1-23, 2-18 thru 2-21, 3-4

Standard	Book 1	Book 2	Book 3
Patterns, Functions, and Algebra (cont.)			
3.17: The student will create equations to represent equivalent mathematical relationships.		1-4, 1-5, 1-9, 1-10, 1-16, 1-17, 2-13, 2-15 thru 2-24, 3-14, 3-15, 3-17 thru 3-26	2-7, 2-15 thru 2-24, 3-5, 3-7, thru 3-10, 3-12, 3-14
Grade 4			
Computation and Estimation			
4.4: The student will . . .			
a. Demonstrate fluency with multiplication facts through 12×12 , and the corresponding division facts (4.4.a)			1-12, 1-13, 1-14, 1-15, 1-16, 1-17, 1-19, 1-21, 1-23, 2-18 thru 2-21, 3-4
b. Estimate and determine sums, differences, and products of whole numbers (4.4.b)			1-12, 1-13, 1-14, 1-15, 1-16, 1-17, 1-19, 1-21, 1-23, 2-18 thru 2-21, 3-4
c. Estimate and determine quotients of whole numbers, with and without remainders (4.4.c)			1-12, 1-13, 1-14, 1-15, 1-16, 1-17, 1-19, 1-21, 1-23, 2-18 thru 2-21, 3-4
4.5: The student will . . .			
a. Determine common multiples and factors, including least common multiple and greatest common factor (4.5.a)			1-12, 1-13, 1-14, 1-15, 1-16, 1-17, 1-19, 1-21, 1-23, 2-18 thru 2-21, 3-4
Measurement and Geometry			
4.7: The student will solve practical problems that involve determining perimeter and area in U.S. customary and metric units.			1-33, 1-35, 1-58