Developing Number Concepts Series:
Correlation to Current Math Standards

Standard[1]	Activity No.		
	Book 1	Book 2	Book 3
Grade K			
Counting and Cardinality (K.CC)			
Know number names and the count sequence. (K.CC.1–3)			
1. Count to 100 by ones and by tens.	1-26, 1-37		
2. Count forward beginning from a given number within the known sequence (instead of having to begin at 1).	1-21, 1-25, 1-26, 1-27		
3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects).	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		
Count to tell the number of objects. (K.CC.4–5)			
4. Understand the relationship between numbers and quantities; connect counting to cardinality.	1-1, 1-2, 1-3, 1-4, 1-6, 1-7, 1-8 , 1-9, 1-21, 1-22, 1-23, 1-24, 1-25, 1-29, 1-30, 1-31, 1-32, 1-34, 3-21, 3-22		
5. Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.	1-10, 1-11, 1-12, 1-14, 1-17, 1-18, 1-19, 1-22, 1-23, 1-24, 1-25, 1-26, 1-27, 1-28, 1-29, 1-30, 1-31, 1-32, 1-33, 1-34, 1-36, 1-37, 1-38, 1-39, 1-40, 1-41, 3-5, 3-9, 3-10, 3-12		

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

Standard	Activity No.		
	Book 1	**Book 2**	**Book 3**
Grade K (cont.)			
Compare numbers. (K.CC.6–7)			
6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies.	1-5, 1-10, 1-12, 1-13, 1-15, 1-20, 1-27, 1-28, 1-41, 3-1, 3-2, 3-3, 3-4, 3-5, 3-7, 3-8, 3-9, 3-13, 3-14, 3-15, 3-16, 3-17, 3-18, 3-19, 3-20, 3-21, 3-22	3-27	
7. Compare two numbers between 1 and 10 presented as written numerals.	3-6, 3-14, 3-15, 3-16, 3-17, 3-18, 3-19, 3-20		
Operations and Algebraic Thinking (K.OA)			
Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from. (K.OA.1–5)			
1. Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.	1-16, 1-17, 1-18, 1-19, 1-35, 3-2, 3-3, 3-6, 3-22	1-1, 1-2, 1-4, 1-5, 1-6, 1-7, 1-8, 1-9, 1-12, 1-16, 1-17, 2-4, 2-5, 2-6, 2-7, 2-8, 2-9, 2-10, 2-11, 2-12, 2-14 thru 2-20, 2-22, 2-23, 3-1 thru 3-27	
2. Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.		1-1, 1-2, 1-3, 1-5, 1-9, 1-16, 1-17, 2-18, 2-23, 3-16, 3-19,	
3. Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 = 2 + 3 and 5 = 4 + 1).	2-19	2-3 thru 2-26, 3-1 thru 3-19, 3-21, 3-22, 3-23, 3-27	
4. For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.	2-19	1-13, 2-22, 2-23, 2-24, 2-25, 3-14, 3-15	

Standard	Activity No.		
	Book 1	**Book 2**	**Book 3**
Grade 1			
Operations and Algebraic Thinking (K.OA)			
5. Fluently add and subtract within 5.	1-35	2-15, 2-16, 2-17, 2-20, 2-21, 2-22, 2-24, 2-25, 2-26, 3-1 thru 3-18, 3-23 thru 3-27	
Measurement and Data (K.MD)			
Classify objects and count the number of objects in each category. (K.MD.3)			
3. Classify objects into given categories; count the numbers of objects in each category and sort the category by count (less than or equal to 10).	1-38, 1-39, 1-40, 1-41, 3-5		
Operations and Algebraic Thinking (1.OA)			
Represent and solve problems involving addition and subtraction. (1.OA.1–2)			
1. Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.		1-11, 2-18	
Understand and apply properties of operations and the relationship between addition and subtraction. (1.OA.3–4)			
3. Apply properties of operations as strategies to add and subtract.		2-15, 2-16, 2-19, 2-22, 2-24, 2-26, 3-13, 3-15, 3-17, 3-36	
4. Understand subtraction as an unknown-addend problem.		1-11, 3-19, 3-25, 3-26	

Standard	Activity No.		
	Book 1	**Book 2**	**Book 3**
Grade 1 (cont.)			
Add and subtract within 20. (1.OA.5–6)			
5. Relate counting to addition and subtraction. (e.g., by counting on 2 to add 2).	1-35, 3-11, 3-12	1-14, 1-15, 2-18, 2-20, 2-25, 2-27, 3-13, 3-14, 3-15, 3-16, 3-20, 3-21, 3-22, 3-23, 3-24, 3-25, 3-26, 3-27, 3-33, 3-35, 3-36, 3-37	
6. Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., $8 + 6 = 8 + 2 + 4 = 10 + 4 = 14$); decomposing a number leading to a ten (e.g., $13 - = 13 - 3 - 1 = 10 - 1 = 9$); using the relationship between addition and subtraction (e.g., knowing that $8 + 4 = 12$, one knows $12 - 8 = 4$); and creating equivalent but easier or known sums (e.g., adding $6 + 7$ by creating the known equivalent $6 + 6 + 1 = 12 + 1 = 13$).		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 3-35, 3-37	
Work with addition and subtraction equations. (1.OA.7–8)			
7. Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false.		2-18, 2-19, 2-20, 2-21, 3-14, 3-15, 3-17, 3-18, 3-21, 3-23, 3-24, 3-25, 3-26, 3-33, 3-35	
8. Determine the unknown whole number in an addition or subtraction equation relating three whole numbers.	1-34	1-11, 1-14, 1-15, 2-21, 2-27, 3-17, 3-18, 3-19, 3-24, 3-25, 3-26	
Number and Operations in Base Ten (1.NBT)			
Extend the counting sequence. (1.NBT.1)			
1. Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.			1-11, 1-20, 1-22, 1-32, 1-33, 1-36, 1-37, 1-39, 1-40, 1-41

Standard	Activity No.		
	Book 1	Book 2	Book 3
Grade 1 (cont.)			
Understand place value. (1.NBT.2–3)			
2. Understand that the two digits of a two-digit number represent amounts of tens and ones.			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
a. 10 can be thought of as a bundle of ten ones – called a "ten."		3-35, 3-37	
b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.		3-35, 3-37	
3. Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.	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
Use place value understanding and properties of operations to add and subtract. (1.NBT.4–6)			
4. Add within 100, including adding a two-digit number and a one digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones, and sometimes it is necessary to compose a ten.			1-13, 1-14, 1-43, 1-44, 1-45, 1-47, 1-48, 1-49, 1-50, 1-52 thru 1-58
5. Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.			1-12, 1-20, 1-21, 1-22, 1-48, 1-51

Standard	Activity No.		
	Book 1	Book 2	Book 3
Grade 1 (cont.)			
Number and Operations in Base Ten (1.NBT)			
6. Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.			1-22, 1-47, 1-49, 1-51
Measurement and Data (1.MD)			
Measure lengths indirectly and by iterating length units. (1.MD.1–2)			
1. Order three objects by length; compare the lengths of two objects indirectly by using a third object.			1-34, 1-38, 1-39
2. Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps.	1-36		1-34, 1-38, 1-39, 1-40, 1-41, 1-54, 1-55
Represent and interpret data. (1.MD.4)			
4. Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.		2-26, 3-18	

Standard	Activity No.		
	Book 1	**Book 2**	**Book 3**
Grade 2			
Operations and Algebraic Thinking (2.OA)			
Represent and solve problems involving addition and subtraction. (2.OA.1)			
1. Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.			1-46, 1-59
Add and subtract within 20. (2.OA.2)			
2. Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers.		3-22, 3-24, 3-26, 3-33, 3-35, 3-36, 3-37	All activities
Work with equal groups of objects to gain foundations for multiplication. (2.OA.3–4)			
3. Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.		3-36	
4. Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.			2-4, 2-13, 2-14, 2-15

Standard	Activity No.		
	Book 1	Book 2	Book 3
Grade 2 (cont.)			
Number and Operations in Base Ten (2.NBT)			
Understand place value. (2.NBT.1–4)			
1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases:			
a. 100 can be thought of as a bundle of ten tens — called a "hundred."			1-34, 1-38
b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).			1-38
2. Count within 1000; skip-count by 5s, 10s, and 100s.			1-36, 1-38
3. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.			1-38
4. Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.			1-34, 1-35, 1-36, 1-38
Use place value understanding and properties of operations to add and subtract. (2.NBT.5–9)			
5. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.			1-49, 1-50, 1-51 thru 1-56, 1-58, 2-25

Standard	Activity No.		
	Book 1	Book 2	Book 3
Grade 3			
Operations and Algebraic Thinking (3.OA)			
Represent and solve problems involving multiplication and division. (3.OA.1–4)			
1. Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each.			2-1, 2-4 thru 2-8, 2-10 thru 2-14, 2-17, 2-23, 2-24, 2-25
2. Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each.			3-3, 3-5, 3-6, 3-7, 3-9 thru 3-15
3. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.			2-2, 2-3, 2-9, 2-22, 3-1, 3-2, 3-8
4. Determine the unknown whole number in a multiplication or division equation relating three whole numbers.			2-15, 2-16, 3-10, 3-14, 3-15
Understand properties of multiplication and the relationship between multiplication and division. (3.OA.5–6)			
5. Apply properties of operations as strategies to multiply and divide.			2-15

Standard	Activity No.		
	Book 1	Book 2	Book 3
Grade 3 (cont.)			
Multiply and divide within 100. (3.OA.7)			
7. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of two one-digit numbers.			2-17
Solve problems involving the four operations, and identify and explain patterns in arithmetic. (3.OA.8–9)			
9. Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations.			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 Data (3.MD)			
Geometric measurement: Understand concepts of area and relate area to multiplication and to addition. (3.MD.5–7)			
6. Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).			1-33, 1-35, 1-58
Mathematical Practice Standards			
Look for and make use of structure: Mathematically proficient students look closely to discern a pattern or structure. (MP7)	2-1 thru 2-21		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