Developing Number Concepts Series:
Correlation to the North Carolina Math Standards

Standard[1]	Activity No.		
	Book 1	Book 2	Book 3
Grade K			
Counting and Cardinality (NC.K.CC)			
Know number names and the counting sequence.			
1. Know number names and recognize patterns in the counting sequence by: counting to 100 by ones and counting to 100 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.			
4. Understand the relationship between numbers and quantities.	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?" in the following situations: 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
Counting and Cardinality (NC.K.CC)			
Compare numbers.			
6. Identify whether the number of objects, within 10, in one group is greater than, less than, or equal to the number of objects in another group, 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, within 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 (NC.K.OA)			
Understand addition and subtraction.			
1. Represent addition and subtraction, within 10: Use a variety of representations such as objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, or expressions; Demonstrate understanding of addition and subtraction by making connections among representations.	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, within 10, 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, using objects or drawings, and record each decomposition by a drawing or expression.	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 0 to 10, find the number that makes 10 when added to the given number using objects or drawings, and record the answer with a drawing or expression.	2-19	1-13, 2-22, 2-23, 2-24, 2-25, 3-14, 3-15	
5. Recognize and combine groups with totals up to 5 (conceptual subitizing).			

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Counting and Cardinality (NC.K.CC)			
6. Demonstrate fluency with addition and subtraction 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 (NC.K.MD)			
Classify objects and count the number of objects in each category.			
3. Classify objects into given categories; count the numbers of objects in each category and sort the category by count.	1-38, 1-39, 1-40, 1-41, 3-5		
Grade 1			
Operations and Algebraic Thinking (NC.1.OA)			
Represent and solve problems.			
1. Represent and solve addition and subtraction word problems, within 20, with unknowns, by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.		1-11, 2-18	
Understand and apply the properties of operations.			
3. Apply the commutative and associative properties as strategies for solving addition problems.		2-15, 2-16, 2-19, 2-22, 2-24, 2-26, 3-13, 3-15, 3-17, 3-36	
4. Solve an unknown-addend problem, within 20, by using addition strategies and/or changing it to a subtraction problem.		1-11, 3-19, 3-25, 3-26	
Add and subtract within 20.			
5. Demonstrate fluency with addition and subtraction within 10.	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	

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Operations and Algebraic Thinking (NC.1.OA)			
6. Add and subtract, within 20, using strategies such as: counting on, making ten, decomposing a number leading to a ten, using the relationship between addition and subtraction, using a number line, creating equivalent but simpler or known sums.		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	
Analyze addition and subtraction equations within 20.			
7. Apply understanding of the equal sign to determine if equations involving addition and subtraction are true.		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 involving 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 (NC.1.NBT)			
Extend and recognize patterns in the counting sequence.			
1. Count to 150, starting at any number less than 150.			1-11, 1-20, 1-22, 1-32, 1-33, 1-36, 1-37, 1-39, 1-40, 1-41
7. Read and write numerals, and represent a number of objects with a written numeral, to 100.			1-11, 1-20, 1-22, 1-32, 1-33, 1-36, 1-37, 1-39, 1-40, 1-41
Understand place value.			
2. Understand that the two digits of a two-digit number represent amounts of tens and ones: unitize by making a ten from a collection of ten ones; model the numbers from 11 to 19 as composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones; demonstrate that the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens, with 0 ones.		3-35, 3-37	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

Standard	Activity No.		
	Book 1	Book 2	Book 3
Number and Operations in Base Ten (NC.1.NBT)			
3. Compare two two-digit numbers based on the value 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.			
4. Using concrete models or drawings, strategies based on place value, properties of operations, and explaining the reasoning used, add, within 100, in the following situations: a two-digit number and a one-digit number; a two-digit number and a multiple of 10.			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
6. Subtract multiples of 10 in the range 10–90 from multiples of 10 in the range 10–90 explaining the reasoning, using: concrete models and drawings; number lines; strategies based on place value; properties of operations; the relationship between addition and subtraction.			1-22, 1-47, 1-49, 1-51
Measurement and Data (NC.1.MD)			
Measure lengths.			
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. Measure lengths with non-standard units: express the length of an object as a whole number of non-standard length units; measure by laying multiple copies of a shorter object (the length unit) end to end (iterating) with no gaps or overlaps.	1-36		1-34, 1-38, 1-39, 1-40, 1-41, 1-54, 1-55

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Measurement and Data (NC.1.MD)			
Represent and interpret data.			
4. Organize, represent, and interpret data with up to three categories: ask and answer questions about the total number of data points; ask and answer questions about how many in each category; ask and answer questions about how many more or less are in one category than in another.		2-26, 3-18	
Grade 2			
Operations and Algebraic Thinking (NC.2.OA)			
Represent and solve problems.			
1. Represent and solve addition and subtraction word problems, within 100, with unknowns in all positions, by using representations and equations with a symbol for the unknown number to represent the problem, when solving one-step problems and two-step problems involving single digits.			1-46, 1-59
Add and subtract within 20.			
2. Demonstrate fluency with addition and subtraction, within 20, using mental strategies.		3-22, 3-24, 3-26, 3-33, 3-35, 3-36, 3-37	All activities
Work with equal groups.			
3. Determine whether a group of objects, within 20, has an odd or even number of members by: pairing objects, then counting them by 2s; determining whether objects can be placed into two equal groups; writing 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

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Number and Operations in Base Ten (NC.2.NBT)			
Understand place value.			
1. Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones.			
2. Count within 1,000; skip-count by 5s, 10s, and 100s.			1-36, 1-38
3. Read and write numbers, within 1,000, using base-ten numerals, number names, and expanded form.			1-38
4. Compare two three-digit numbers based on the value 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.			
5. Demonstrate fluency with addition and subtraction, within 100, by: flexibly using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; comparing addition and subtraction strategies, and explaining why they work; selecting an appropriate strategy in order to efficiently compute sums and differences.			1-49, 1-50, 1-51 thru 1-56, 1-58, 2-25
Grade 3			
Operations and Algebraic Thinking (NC.3.OA)			
Represent and solve problems involving multiplication and division.			
1. For products of whole numbers with two factors up to and including 10: interpret the factors as representing the number of equal groups and the number of objects in each group; illustrate and explain strategies including arrays, repeated addition, decomposing a factor, and applying the commutative and associative properties.			2-1, 2-4 thru 2-8, 2-10 thru 2-14, 2-17, 2-23, 2-24, 2-25

Standard	Activity No.		
	Book 1	Book 2	Book 3
Operations and Algebraic Thinking (NC.3.OA)			
2. For whole-number quotients of whole numbers with a one-digit divisor and a one-digit quotient: interpret the divisor and quotient in a division equation as representing the number of equal groups and the number of objects in each group; illustrate and explain strategies including arrays, repeated addition or subtraction, and decomposing a factor.			3-3, 3-5, 3-6, 3-7, 3-9 thru 3-15
4. Represent, interpret, and solve one-step problems involving multiplication and division with factors up to and including 10 and with a divisor and quotient up to and including 10.			2-2, 2-3, 2-9, 2-22, 3-1, 3-2, 3-8
Multiply and divide within 100.			
7. Demonstrate fluency with multiplication and division with factors, quotients and divisors up to and including 10.			2-17
Explore patterns of numbers			
9. Interpret patterns of multiplication on a hundreds board and/or multiplication table.			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 (NC.3.MD)			
Understand the concept of area.			
5. Find the area of a rectangle with whole-number side lengths by tiling without gaps or overlaps and counting unit squares.			1-33, 1-35, 1-58