Second Grade

Standards for Mathematical Practice	
1. Make sense of problems and persevere in solving them. 2. Reason abstractly and quantitatively. 3. Construct viable arguments and critique the reasoning of others. 4. Model with mathematics	5. Use appropriate tools strategically. 6. Attend to precision. 7. Look for and make use of structure. 8. Look for and express regularity in repeated reasoning

Standard Course of Study		**Extended Content Standards**	
Operations and Algebraic Thinking			
Represent and solve problems			
NC.2.OA.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: o Add to/Take from-Start Unknown o Compare-Bigger Unknown o Compare-Smaller Unknown • Two-Step problems involving single digits: o Add to/Take from- Change Unknown		

	o Add to/Take From- Result Unknown		
Add and subtract within 20.			
NC.2.OA.2	Demonstrate fluency with addition and subtraction, within 20, using mental strategies.		
Add and subtract within 20			
NC.2.OA.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.	**NC.2.OA.3**	Equally distribute even numbers of objects (up to 20) between two groups.
NC.2.OA.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.	**NC.2.OA.4**	Use addition to find the total number of objects arranged within equal groups up to a total of 20.
Number and Operations in Base Ten			
Understand Place Value			
NC.1.NBT.1	1 Understand that the three digits of a three-digit number represent amounts of	**NC.2.NBT.1**	Represent numbers up to 30 with sets of tens and ones using objects in columns or

	hundreds, tens, and ones. • Unitize by making a hundred from a collection of ten tens. • Demonstrate that the numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds, with 0 tens and 0 ones. • Compose and decompose numbers using various groupings of hundreds, tens, and ones.		arrays
NC.2.NBT.2	Count within 1,000; skip-count by 5s, 10s, and 100s	**NC.2.NBT.2**	Use concrete and pictoral representations to count to 30 items by ones.
NC.2.NBT.3	Read and write numbers, within 1,000, using base-ten numerals, number names, and expanded form.	**NC.2.NBT.3**	Count sets (1 to 30) of concrete and pictoral representations, then identify the corresponding numeral.
NC.2.NBT.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.	**NC.2.NBT.4**	Compare sets of numbers or objects to determine greater than, less than, or equal.
Use place value understanding and properties of operations			
NC.2.NBT.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	**NC.2.NBT.5**	Model the meaning of the symbols for addition (+) and subtraction (-) by using manipulatives to compose and decompose numbers up to 20.

	strategies and explaining why they work. • Selecting an appropriate strategy in order to efficiently compute sums and differences.		
NC.2.NBT.6	Add up to three two-digit numbers using strategies based on place value and properties of operations.	**NC.2.NBT.6**	Identify how many tens and ones are in numbers up to 30.
NC.2.NBT.7	Add and subtract, within 1,000, relating the strategy to a written method, using: • Concrete models or drawings • Strategies based on place value • Properties of operations • Relationship between addition and subtraction	**NC.2.NBT.7**	Use objects, representations, and numbers (0–20) to add and subtract.
NC.2.NBT.8	Mentally add 10 or 100 to a given number 100–900, and mentally subtract 10 or 100 from a given number 100–900.		
Measurement and Data			
Measure and estimate lengths			
NC.2.MD.1	Measure the length of an object in standard units by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.	**NC.2.MD.1**	Measure the length of objects using non-standard units
NC.2.MD.2	Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two	**NC.2.MD.3**	

	measurements relate to the size of the unit chosen.		
NC.2.MD.3	Estimate lengths in using standard units of inches, feet, yards, centimeters, and meters.	**NC.2.MD.3**	Order by length using non-standard units.
NC.2.MD.4	Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard-length unit		
Relate addition and subtraction to length			
NC.2.MD.5	Use addition and subtraction, within 100, to solve word problems involving lengths that are given in the same units, using equations with a symbol for the unknown number to represent the problem.	**NC.2.MD.5**	Increase or decrease length by adding or subtracting units.
NC.2.MD.6	Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points and represent whole-number sums and differences, within 100, on a number line.	**NC.2.MD.6**	Use a number line to add one more unit of length.
Build understanding of time and money			
NC.2.MD.7	Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.	**NC.2.MD.7**	Identify on a digital clock the hour that matches a routine activity.
NC.2.MD.8	Solve word problems involving: • Quarters, dimes, nickels, and pennies	**NC.2.MD.8**	Recognize that money has value.

	within 99¢, using ¢ symbols appropriately. • Whole dollar amounts, using the $ symbol appropriately.		
Represent and interpret data			
NC.2.MD.10	Organize, represent, and interpret data with up to four categories. • Draw a picture graph and a bar graph with a single-unit scale to represent a data set. • Solve simple put-together, take-apart, and compare problems using information presented in a picture and a bar graph.	**NC.2.MD.10**	Create picture graphs from collected measurement data.
Geometry			
Reason with shapes and their attributes			
NC.2.G.1	Recognize and draw triangles, quadrilaterals, pentagons, and hexagons, having specified attributes; recognize and describe attributes of rectangular prisms and cubes.	**NC.2.G.1**	Indicate the names of shapes (circle, square, rectangle, and triangle).
NC.2.G.3	Partition circles and rectangles into two, three, or four equal shares. • Describe the shares using the words halves, thirds, half of, a third of, fourths, fourth of, quarter of. • Describe the whole as two halves, three thirds, four fourths.	**NC.2.G.3**	Use manipulatives to partition shapes into equal parts.

	• Explain that equal shares of identical wholes need not have the same shape.		