



Public Schools of North Carolina  
State Board of Education | Department of Public Instruction

This document is designed to help North Carolina educators teach the Common Core. NCDPI staff are continually updating and improving these tools to better serve teachers.

## 2<sup>nd</sup> Grade Math Curriculum Crosswalk

The following document is to be used to compare the 2003 North Carolina Mathematics Standard Course of Study and the Common Core State Standards for Mathematics.

As noted in the Common Core State Standards for Mathematics document, the instructional time in Grade 2 should focus on four critical areas:

- (1) extending understanding of base-ten notation;
- (2) building fluency with addition and subtraction;
- (3) using standard units of measure; and
- (4) describing and analyzing shapes.

To download the Common Core State Standards, please visit <http://www.corestandards.org/the-standards>.

**Important Note: The current SCoS will continue to be the taught and tested standards in the 2010-11 and 2011-12 school years.** We expect the new Common Core standards to be taught and assessed in schools for the first time in the 2012-13 school year. That said, we are providing resources now and over the next two-years so that schools and teachers can get a head start on internalizing and planning to teach the new standards.

NC SCOS		Common Core				
Strand	Objective	Text of objective	Domain	Standard	Cluster	Comments
					Text of objective	
Number & Operations	1.01	Develop number sense for whole numbers through 999.				
		a) Connect model, number word, and number using a variety of representations.	Number and Operations in Base Ten	2.NBT.1	<p><b>Understand place value.</b></p> <p>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:</p> <ul style="list-style-type: none"> <li>a. 100 can be thought of as a bundle of ten tens-called a “hundred.”</li> <li>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).</li> </ul>	
		b) Read and write numbers.	Number and Operations in Base Ten	2.NBT.3	<p><b>Understand place value.</b></p> <p>Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.</p>	Expanded form is new to 2 <sup>nd</sup> grade.
		c) Compare and order.	Number and Operations in Base Ten	2.NBT.4	<p><b>Understand place value.</b></p> <p>Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using <math>&gt;</math>, <math>=</math>, and <math>&lt;</math> symbols to record the results of the comparisons.</p>	
		d) Rename.				
		e) Estimate.				

NC SCOS			Common Core			
Strand	Objective	Text of objective	Domain	Standard	Cluster	Comments
					Text of objective	
		f) Use a variety of models to build understanding of place value (ones, tens, hundreds).	Number and Operations in Base Ten	2.NBT.1.a	<p><b>Understand place value.</b></p> <p>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:</p> <p>a. 100 can be thought of as a bundle of ten tens- called a “hundred.”</p>	
				2.NBT.1.b	<p><b>Understand place value</b></p> <p>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:</p> <p>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).</p>	
	1.02	Use area or region models and set models of fractions to explore part-whole relationships in contexts.				The stress on understanding fractions as a “part-whole” relationship is shifting to build on children’s early understandings of fractions as fair shares or “partitioning.”
		a) Represent fractions (halves, thirds, fourths) concretely and symbolically.	Geometry	2.G.3	<p><b>Reason with shapes and their attributes.</b></p> <p>Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words <i>halves</i>, <i>thirds</i>, <i>half of</i>, <i>a third of</i>, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal share of identical wholes need not have the same shape.</p>	This builds on the halving and halving again to share fairly with 2 or 4 people in Kindergarten.

NC SCOS			Common Core			
Strand	Objective	Text of objective	Domain	Standard	Cluster	Comments
					Text of objective	
		b) Compare fractions (halves, thirds, fourths) concretely and symbolically.				
		c) Make different representations of the same fraction.	Geometry	2.G.3	<p><b>Reason with shapes and their attributes.</b></p> <p>Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words <i>halves</i>, <i>thirds</i>, <i>half of</i>, <i>a third of</i>, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal share of identical wholes need not have the same shape.</p>	
		d) Combine fractions to describe parts of a whole.				Moved to 3 <sup>rd</sup> grade in Common Core.
	1.03	Create, model, and solve problems that involve addition, subtraction equal grouping and division into halves, thirds, and fourths (record in fraction form).				Moved to 4 <sup>th</sup> grade in Common Core.
1.04	Develop fluency with multi-digit addition and subtraction through 999 using multiple strategies.	Operations & Algebraic Thinking	2.OA.1	<p><b>Represent and solve problems involving addition and subtraction.</b></p> <p>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.<sup>1</sup></p>		

NC SCOS		Common Core				
Strand	Objective	Text of objective	Domain	Cluster	Comments	
			Standard	Text of objective		
			Numbers & Operations in Base Ten	2.NBT.6	<p><b>Use place value understanding and properties of operations to add and subtract.</b></p> <p>Add up to four two-digit numbers using strategies based on place value and properties of operations.</p>	
				2.NBT.7	<p><b>Use place value understanding and properties of operations to add and subtract.</b></p> <p>Add and subtract within 1000, 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. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.</p>	
			Numbers & Operations in Base Ten	2.NBT.5	<p><b>Use place value understanding and properties of operations to add and subtract.</b></p> <p>Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.</p>	"Fluently" does not necessarily mean to memorize.
				2.NBT.9	<p><b>Use place value understanding and properties of operations to add and subtract.</b></p> <p>Explain why addition and subtraction strategies work, using place value and the properties of operations.</p>	
		b) Estimation of sums and differences in appropriate situations.				

NC SCOS			Common Core			
Strand	Objective	Text of objective	Domain	Standard	Cluster	Comments
					Text of objective	
		c) Relationships between operations.	Operations & Algebraic Thinking	2.OA.2	<b>Add and subtract within 20.</b> Fluently add and subtract within 20 using mental strategies. <sup>2</sup> By the end of Grade 2, know from memory all sums of two one-digit numbers.	See standard 1.OA.6 for list of mental strategies: <ul style="list-style-type: none"> <li>• Making a ten</li> <li>• Decomposing a number leading to a ten</li> <li>• Using the relationship between addition and subtraction</li> <li>• Creating equivalent but easier or known sums</li> </ul>
	1.05	Create and solve problems using strategies such as modeling, composing and decomposing quantities, using doubles, and making tens and hundreds.			2.OA.1	
	1.06	Define and recognize odd and even numbers.		2.OA.3	<b>Work with equal groups of objects to gain foundations for multiplication.</b> 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 2's; write an equation to express an even number as a sum of two equal addends.	This standard expresses the importance of understanding why numbers are odd or even over the rule about the digits in the ones place.
		2.OA.4		<b>Work with equal groups of objects to gain foundations for multiplication.</b> Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5	This is a precursor to multiplication as well as measuring area.	

NC SCOS			Common Core					
Strand	Objective	Text of objective	Domain	Standard	Cluster	Text of objective	Comments	
								columns; write an equation to express the total as a sum of equal addends.
			Numbers & Operations in Base Ten	2.NBT.2	<b>Understand place value.</b>	Count within 1,000; skip count by 5s, 10s and 100s.	In skip counting, students need to understand that they are actually counting by groups of 5, 10 or 100; it is not another way to count individual items.	
			Numbers & Operations in Base Ten	2.NBT.8	<b>Use place value understanding and properties of operations to add and subtract.</b>	Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.		
Measurement	2.01	Estimate and measure using appropriate units.	Measurement & Data	2.MD.3	<b>Measure and estimate lengths in standard units.</b>	Estimate lengths using units of inches, feet, centimeters, and meters.		
		a) Length (meters, centimeters, feet, inches and yards).			2.MD.1		<b>Measure and estimate lengths in standard units.</b>	Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
		b) Temperature (Fahrenheit).						
2.02		Tell time at the five-minute intervals.	Measurement & Data	2.MD.7	<b>Work with time and money.</b>	Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.		

NC SCOS			Common Core			
Strand	Objective	Text of objective	Domain	Standard	Cluster	Comments
					Text of objective	
				2.MD.2	<p><b>Measure and estimate lengths in standard units.</b></p> <p>Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.</p>	
				2.MD.4	<p><b>Measure and estimate lengths in standard units.</b></p> <p>Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.</p>	
				2.MD.5	<p><b>Relate addition and subtraction to length.</b></p> <p>Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.</p>	
				2.MD.6	<p><b>Relate addition and subtraction to length.</b></p> <p>Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and represent whole-number sums and differences on a number line diagram.</p>	
				2.MD.8	<p><b>Work with time and money.</b></p> <p>Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ appropriately: <i>example: If you have 2 dimes and 3 pennies, how many cents do you have?</i></p>	

NC SCOS			Common Core				
Strand	Objective	Text of objective	Domain	Standard	Cluster	Text of objective	Comments
			Measurement & Data	2.MD.9	<b>Represent and interpret data.</b> Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.		
Geometry	3.01	Combine simple figures to create a given shape.	Geometry	2.G.1	<b>Reason with shapes and their attributes.</b> Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.		Sizes are compared directly or visually, not compared by measuring.
	3.02	Describe the change in attributes as two- and three-dimensional figures are cut and rearranged.					
	3.03a	Identify and make symmetric figures.					Moved to 4 <sup>th</sup> grade in the Common Core.
	3.03 b	Identify and make congruent figures.					
			Geometry	2.G.2	<b>Reason with shapes and their attributes.</b> Partition a rectangle into rows and columns of same-sized squares and count to find the total number of them.		This is a prerequisite for multiplication and understanding the measure of area.

NC SCOS			Common Core			
Strand	Objective	Text of objective	Domain	Standard	Cluster	Comments
					Text of objective	
Data Analysis and Probability	4.01	Collect, organize, describe and display data using Venn diagrams (three sets) and pictographs where symbols represent multiple units (2's, 5's, 10's).	Measurement & Data	2.MD.10	<b>Represent and interpret data.</b> Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems <sup>4</sup> using information presented in a bar graph.	
	4.02	Conduct simple probability experiments; describe the results and make predictions.				Moved to 6 <sup>th</sup> grade in Common Core.
Algebra	5.01	Identify, describe, translate, and extend repeating and growing patterns.				
	5.02	Write addition and subtraction number sentences to represent a problem; use symbols to represent unknown quantities.	Operations & Algebraic Thinking	2.OA.1	<b>Represent and solve problems involving addition and subtraction.</b> 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. <sup>1</sup>	