

# 2003/2010 ACOS MATHEMATICS CONTENT CORRELATION

## GRADE 2

<b>2003 ACOS</b>		<b>2010 ACOS</b>
<b>CURRENT ALABAMA CONTENT PLACEMENT</b>		<b>2010 GRADE 2 CONTENT</b>
<b>2.1</b>	<b>Demonstrate concepts of number sense by using multiple representations of whole numbers up to 1000, counting forward and backward by threes from a given number, identifying a number that is 100 more or 100 less than a given number, and differentiating between odd and even numbers.</b>	<p>2.3. Determine whether a group of <b>objects (up to 20)</b> has an odd or even number of members, e.g., by pairing objects or counting them by 2s; <b>write an equation to express an even number as a sum of two equal addends.</b> [2-OA3]</p> <p>2.6. Count within 1000; skip-count by 5s, 10s, and 100s. [2-NBT2]</p> <p>2.12. Mentally <b>add 10 or 100</b> to a given number <b>100 – 900</b>, and mentally subtract <b>10 or 100</b> from a given number <b>100 – 900</b>. [2-NBT8]</p>
<b>2.1.B.1</b>	<b>Identifying position using ordinal numbers to 100th</b>	<b>CONTENT NO LONGER ADDRESSED IN GRADE 2</b>
<b>2.1.B.2</b>	<b>Determining the value of a digit in the ones, tens, hundreds, and thousands place</b>	<p>2.5. 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: [2-NBT1]</p> <p>a. 100 can be thought of as a bundle of ten tens — called a ‘hundred.’ [2-NBT1a]</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.) [2-NBT1b]</p>
<b>2.1.B.3</b>	<b>Determining the value of a number expressed in expanded notation</b>	<p>2.7. <b>Read and write numbers to 1000</b> using base-ten numerals, number names, and expanded form. [2-NBT3]</p>
<b>2.2</b>	<b>Apply the operations of addition and subtraction to solve problems involving two- digit numerals, using multiple strategies with and without regrouping.</b>	<p>2.1. 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 <b>comparing</b>, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem (See Appendix A, Table 1.) [2-OA1]</p> <p>2.9. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. [2-NBT5]</p> <p>2.10. <b>Add up to four two-digit numbers</b> using strategies based on place value and properties of operations. [2-NBT6]</p> <p>2.11. 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. [2-NBT7]</p> <p>2.19. Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2, ..., and <b>represent whole-number sums and differences within 100 on a number diagram.</b> [2-MD6]</p>
<b>2.2.B.1</b>	<b>Demonstrating computational fluency for basic addition and subtraction facts with sums through 18 and differences with minuends through 18, using horizontal and vertical forms</b>	<p>2.2. <b>Fluently add and subtract within 20</b> using mental strategies. (See standard 6, Grade 1 for a list of mental strategies.) By end of Grade 2, know from memory all sums of two one-digit numbers. [2-OA2]</p>

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2.2.B.2	Interpreting multiplication as repeated addition and division as equal groupings	2.3. 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. [2-OA3] 2.4. 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-OA4]
2.2.B.3	Solving multistep addition and subtraction problems originating from real-life experiences	2.18. 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. [2-MD5]
2.2.B.4	Justifying the strategy used to solve addition and subtraction problems	2.10. Add up to four two-digit numbers using strategies based on place value and properties of operations. [2-NBT6] 2.13. Explain why addition and subtraction strategies work, using place value and the properties of operations. (Explanations may be supported by drawings or objects.) [2-NBT9]
2.2.B.5	Using an estimate to determine if an answer is reasonable	<b>CONTENT NO LONGER ADDRESSED IN GRADE 2</b>
2.3	Label equal parts of a whole using $\frac{1}{2}$ , $\frac{1}{3}$ , and $\frac{1}{4}$ .	2.26. 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, or four fourths. Recognize that equal shares of identical wholes need not have the same shape. [2-G3]
2.4 2.4.B.1 2.4.B.2	Determine the monetary value of sets of coins and bills up to \$2.00. Exchanging coins of equivalent value Applying monetary symbols, including dollar (\$), cent (¢), and decimal point (.)	2.21. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. [2-MD8]
2.4.B.3	Recognizing the decimal numbers .10, .25, .50, and .75 as related to money.	2.21. Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. [2-MD8]
2.5	Create growing patterns.	<b>CONTENT NOW ADDRESSED IN GRADE 4:</b> 4.5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. [4-OA5]
2.6	Solve problems using the associative property of addition.	2.9. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. [2-NBT5] 2.10. Add up to four two-digit numbers using strategies based on place value and properties of operations. [2-NBT6] 2.13. Explain why addition and subtraction strategies work, using place value and the properties of operations. (Explanations may be supported by drawings or objects.) [2-NBT9]
2.7	Describe change over time in observable (qualitative) and measurable (quantitative) terms.	<b>CONTENT NO LONGER ADDRESSED IN GRADE 2</b>
2.8 2.8.B.1	Describe attributes of two-dimensional (plane) and three-dimensional (solid) figures using the terms <i>side</i> , <i>surface</i> , <i>edge</i> , <i>vertex</i> , and <i>angle</i> . Identifying quadrilaterals, pentagons, hexagons, or octagons	2.24. Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. (Sizes are compared directly or visually, not compared by measuring.) Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. [2-G1]
2.8.B.2	Identifying line symmetry in plane geometric figures	<b>CONTENT NOW ADDRESSED IN GRADE 4:</b> 4.28. Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry. [4-G3]

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2.8.B.3	Creating designs that exhibit line symmetry	<b>CONTENT NOW ADDRESSED IN GRADE 4:</b> 4.28. Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry. [4-G3]
2.8.B.4	Recognizing the results of changing the position (transformation) of objects or shapes by sliding (translation), turning (rotation), or flipping (reflection)	<b>CONTENT NOW ADDRESSED IN GRADE 8:</b> 8.16. Verify experimentally the properties of rotations, reflections, and translations: [8-G1] a. Lines are taken to lines, and line segments to line segments of the same length. [8-G1a] b. Angles are taken to angles of the same measure.[8-G1b] c. Parallel lines are taken to parallel lines. [8-G1c]
2.9	Describe the route from one location to another by applying concepts of direction and distance.	<b>CONTENT NO LONGER ADDRESSED IN GRADE 2</b>
2.9.B.1	Following multistep directions to locate objects	<b>CONTENT NO LONGER ADDRESSED IN GRADE 2</b>
2.9.B.2	Reading maps of the school environment	<b>CONTENT NO LONGER ADDRESSED IN GRADE 2</b>
2.9.B.3	Using grids for movement between points	<b>CONTENT NOW ADDRESSED IN GRADE 5:</b> 5.24. Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation. [5-G2]
2.10 2.10.B.1 2.10.B.2	Measure length in customary units, including inches, feet, and yards. Using metric units Using appropriate tools, including rulers, yard sticks, meter sticks, or tape measures	2.14. Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. [2-MD1] 2.15. 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. [2-MD2] 2.16. Estimate lengths using units of inches, feet, centimeters, and meters. [2-MD3] 2.17. Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit. [2-MD4]
2.11	Estimate weight and capacity by making comparisons with familiar objects.	<b>CONTENT NOW ADDRESSED IN GRADE 3:</b> 3.17. Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). (Excludes compound units such as cm <sup>3</sup> and finding the geometric volume of a container.) Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem. (Excludes multiplicative comparison problems (problems involving notions of 'times as much'; see Appendix A, Table 2). [3-MD2]
2.12	Tell time to the minute using analog and digital clocks.	2.20. Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m. [2-MD7]
2.13	Create displays, including appropriate labels, for a given set of data using pictographs, tally charts, bar graphs, or single- or double-loop Venn diagrams.	2.22. 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. [2-MD9] 2.23. 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 (See Appendix A, Table 1) using information presented in a bar graph. [2-MD10]

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2.13.B.1	Interpreting graphic displays	2.23. 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 (See Appendix A, Table 1) using information presented in a bar graph. [2-MD10]
2.14	Determine if one event related to everyday life is more likely or less likely to occur than another event.	<b>CONTENT NOW ADDRESSED IN GRADE 7:</b> 7.21. Understand that the probability of a chance event is a number between 0 and 1 that expresses the likelihood of the event occurring. Larger numbers indicate greater likelihood. A probability near 0 indicates an unlikely event, a probability around $\frac{1}{2}$ indicates an event that is neither unlikely nor likely, and a probability near 1 indicates a likely event. [7-SP5]
<b>CONTENT MOVED TO GRADE 2 IN 2010 ACOS</b>		
3.1.B.1	Comparing numbers using the symbols $>$ , $<$ , $=$ , and $\neq$	2.8. Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$ , $=$ , and $<$ symbols to record the results of comparisons. [2-NBT4]
3.3.B.1	Applying concepts of multiplication through the use of manipulatives, number stories, arrays, repeated addition, or problem situations	2.25. Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. [2-G2]
<b>NEW GRADE 2 CONTENT IN 2010 ACOS</b>		
		None