

Mobile County Public School  
Elementary Mathematics Grade 1  
Explanation and 2009 ALCOS Changes Preface Guide  
2009-2010

In April 2009, the Alabama State Department of Education adopted the new Course of Study for Mathematics. The new course of study (COS) is based upon the National Council of Teachers of Mathematics (NCTM) *Principles and Standards of School Mathematics (PSSM)*, *Curriculum Focal Points for Prekindergarten through Grade 8 Mathematics: A Quest for Coherence and Foundations for Success: The Final Report of the National Mathematics Advisory Panel*. The MCPSS Elementary Mathematics Curriculum Manual was updated to reflect the changes in the new COS, therefore necessitating changes in the quarterly Pacing Guide. Below is information to help teachers maximize their use of the pacing guides.

INTERPRETING THE PACING GUIDES DOCUMENT:

Column 1 – **Alabama Course of Study number:** If there is no number listed, the objective is required locally by MCPSS.

Column 2 – **Manual & Quiztrax number:** The Manual was updated to make sure the Quiztrax numbers are reflective of the Manual numbers.

Column 3 – **Standards & Objectives:** Numbered COS items are bolded since these are the guiding objectives and will be the overall tested standards on the ARMT. If a row is shaded, this denotes a modification of the core objective for the purpose of developmental progression towards overall mastery.

Columns 4 & 5 – **ARMT/SAT10:** Signify that certain objectives are likely to be tested on the ARMT and SAT10.

Columns 6 & 7 - **Taught & Tested:** Allow teachers to record information about when objectives have been taught and tested.

Column 8 – **AMP Test:** Identifies the System provided, optional Assessment of Mathematical Progress (AMP) in which the objective is assessed. All items on a particular AMP are grouped together and boxed together.

USING THE PACING GUIDE:

The purpose of the Pacing Guide is to supply a scope and sequence of objectives that will be assessed each quarter. The Elementary Mathematics Curriculum Manual provides additional math content and professional knowledge along with clarifying examples of each objective. Pacing information, however, is all contained in the Pacing Guide. The Pacing Guide should be used to plan and prepare units and lessons for instruction each quarter.

**Important:** After reviewing the pacing for each quarter, each school and grade level should review the longitudinal testing data for the school to determine areas of weakness. Schools may want to add these areas for improvement earlier in the year, as well as, the quarter in which the System assigns to the objective.

## **What is new for 1<sup>st</sup> Grade:**

### **NUMBER AND OPERATIONS:**

- 1.4 Differentiate between odd and even numbers
- 2.1 Compose and decompose two-digit numbers in multiple ways
- 2.2 Identify the value of each digit
- 2.6 Estimate the number of objects in sets that contain up to 100 objects
- 3.2 Apply signs +, -, and = to actions of joining and separating sets
- 3.4 Use multiple strategies to add and subtract, including counting on, counting back, and using doubles
- 3.5 Demonstrate the relationship between the operations of addition and subtraction

### **ALGEBRA:**

- 6.1 Construct the same pattern with a variety of representations

### **GEOMETRY:**

- 8.2 Explain how shapes are alike and different
- 8.3 Recognize shapes from different perspectives and orientations
- 9.1 Identify 3-dimensional (solid) figures, including cubes, spheres, cones, cylinders, and rectangular prisms
- 9.2 Identify 2-dimensional shapes as faces of 3-dimensional figures

### **DATA ANALYSIS AND PROBABILITY:**

- 13.1 Summarize information from graphs, including pictographs, tally charts, bar graphs, or Venn diagrams

Mobile County Public School System  
 Division of Curriculum & Instruction  
**First Grade Mathematics Pacing Guide at a Glance**  
**Quarter 1**

ACOS #	Manual/ QuizTrax #	Standards/Objectives	A check mark (✓) indicates the standard is assessed on:		Assessment		
			ARMT	SAT10	Taught	Tested	AMP Test
3	3.6	Demonstrate computational fluency of addition problems with sums to 5					BFT
1	1.1	Count forward from a given number to 50 by ones					Number Sense
1	1.2	Count backwards from a given number less than 25 by ones					
1	1.5	Use vocabulary, including equal, not equal, all and none, to identify the quantity of sets of objects					
2	2.1	Compose and decompose numbers through 10 in multiple ways					
2	2.5	Represent numbers with multiple models					
	2.7	Recognize that the quantity stays the same when the spatial arrangement changes					
3	3.1	Add and subtract numbers through 10 by joining, separating, and comparing sets of objects in authentic situations					Addition & Subtraction
3	3.2	Apply signs +, -, and = to actions of joining and separating sets					
3	3.4	Use multiple strategies to add and subtract, including counting on, counting back, and using doubles					
	3.8	Solve vertical or horizontal number problems requiring the addition and subtraction of one-digit numerals					
7	7.1	Recognize the identity and commutative properties of addition					
4	4.1	Determine the monetary value of individual coins and sets of like coins, pennies only, up to 25¢					Money
6	6.1	Construct the same pattern with a variety of representations					Patterns
6	6.2	Identify patterns in the environment					
	6.3	Identify the core of a pattern					

*Highlighted objectives indicate a modification of the core objective for the purpose of developmental progression towards overall mastery. For example: Framework/Quiz # 1.1 states: "Count forward from a given number to 100 by ones, twos, fives, and tens. In qtr1s, students are only expected to count to 50 by ones."*

*BFT refers to the quarterly Basic Fact Test*

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**Quarter 2**

ACOS #	Manual/ QuizTrax #	Standards/Objectives	A check mark (✓) indicates the standard is assessed on:		Assessment		
			ARMT	SAT10	Taught	Tested	AMP Test
3	3.6	Demonstrate computational fluency of addition problems with sums to 10					BFT
1	1.1	Count forward from a given number to 100 by ones, fives, and tens					Number Sense
1	1.2	Count backwards from a given number less than 50 by ones					
1	1.3	Identify position using ordinal numbers through 20th					
1	1.5	Use vocabulary, including equal, not equal, all, and none, to identify the quantity of sets of objects					
2	2.1	Compose and decompose numbers through 10 in multiple ways					
3	3.4	Use multiple strategies to add and subtract, including counting on, counting back, and using doubles					Computation & Algebra
3	3.5	Demonstrate the relationship between the operations of addition and subtraction					
7	7.1	Recognize the identity and commutative properties of addition					
	7.3	Determine the missing addend in addition sentences to 5					
4	4.1	Determine the monetary value of individual coins and sets of like coins (pennies, nickels, dimes) up to \$1.00					Money
5	5.1	Identify parts of a whole with two, three, or four equal parts					Fractions
	5.2	Divide an object or set of objects into equal parts					
	5.3	Identify one-half of an object or set of objects when the whole is shown					
8	8.1	Describe attributes of two-dimensional (plane) geometric shapes, including quadrilaterals, pentagons, hexagons, heptagons, and octagons					Geometry: Plane Shapes
8	8.2	Explain how shapes are alike and different					
8	8.3	Recognize shapes from different perspectives and orientations					
	8.4	Combine smaller shapes to fill in the area of a given larger shape					
9	9.1	Identify three-dimensional (solid) geometric figures, including cubes, spheres, cones, cylinders, and rectangular prisms					Geometry: Solid Figures
9	9.2	Identify two-dimensional shapes as faces of three-dimensional figures					
9	9.3	Locate three-dimensional figures in the environment					
9	9.4	Recognize real-life examples of line symmetry					
12	12.1	Locate days, dates, and months on a calendar					Calendar

*Highlighted objectives indicate a modification of the core objective for the purpose of developmental progression towards overall mastery.*

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 Quarter 3

ACOS #	Manual/ QuizTrax #	Standards/Objectives	A check mark (✓) indicates the standard is assessed on:		Assessment		
			ARMT	SAT10	Taught	Tested	Amp Test
3	3.6	Demonstrate computational fluency of subtraction problems with minuends of 5 or less					BFT
1	1.1	Count forward by from a given number to 100 by ones, fives, and tens and to 50 by twos					Number Sense
1	1.2	Count backwards from a given number less than 100 by ones					
1	1.4	Differentiate between odd and even numbers					
1	1.5	Use vocabulary, including equal, not equal, all, and none, to identify the quantity of sets of objects					
2	2.1	Compose and decompose two-digit numbers in multiple ways					Number Sense with Place Value
2	2.2	Identify the value of each digit in a one- or two-digit number					
2	2.3	Determine a number when given the quantity of tens and ones					
2	2.4	Determine a number that is 10 more or 10 less than a given number					
2	2.5	Represent numbers with multiple models					
2	2.6	Estimate the number of objects in sets that contain up to 50 objects					
3	3.1	Add and subtract one- and two-digit numbers by joining, separating, and comparing sets of objects in authentic situations					(2 tests) Addition & Subtraction
3	3.2	Apply signs +, -, and = to actions of joining and separating sets					
3	3.5	Demonstrate the relationship between the operations of addition and subtraction					
	3.7	Solve, using number sense strategies, basic addition and subtraction facts with sums and minuends 11-18					
	3.8	Solve vertical or horizontal number problems requiring the addition and subtraction of one-digit numeral					
7	7.1	Recognize the identity and commutative properties of addition					
	7.3	Determine the missing addend in addition sentences to 10					
4	4.1	Determine the monetary value of individual coins and sets of like coins (pennies, nickels, dimes) up to \$1.00					Money
	4.2	Determine the monetary value of individual coins and sets of mixed coins (pennies, nickels, dimes) up to \$1.00					
11	11.1	Identify time to the hour and half hour using analog and digital clocks					Time
	11.2	Determine the time for an elapse of one hour on the hour					
13	13.1	Summarize information from graphs, including pictographs, tally charts, bar graphs, or Venn diagrams					Data

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**Quarter 4**

ACOS #	Manual/ QuizTrax #	Standards/Objectives	A check mark (✓) indicates the standard is assessed on:		Assessment		
			ARMT	SAT10	Taught	Tested	AMP Test
3	3.6	Demonstrate computational fluency of subtraction problems with minuends of 10 or less					BFT
1	1.1	Count forward from a given number to 100 by ones, twos, fives, and tens					Number Sense
2	2.1	Compose and decompose two-digit numbers in multiple ways					
2	2.6	Estimate the number of objects in sets that contain up to 100 objects					
3	3.1	Add and subtract one- and two-digit numbers by joining, separating, and comparing sets of objects in authentic situations					Computation
3	3.2	Apply signs +, -, and = to actions of joining and separating sets					
3	3.3	Add three or more single digit numbers					
	3.7	Solve, using number sense strategies, basic addition and subtraction facts to 18					
	3.8	Solve vertical or horizontal number problems requiring addition and subtraction of one- or two-digit numerals without regrouping					
4	4.1	Determine the monetary value of individual coins and sets of like coins up to \$1.00					Money
	4.2	Determine the monetary value of mixed coins (pennies, nickels, dimes)					
	7.2	Recognize that the equal symbol (=) indicates that the two sides of an equation are expressions of the same number					Algebra
	7.3	Determine the missing addend in addition sentences to 10					
	G.1	Identify the distance from one location to another on a grid by describing how far it is to the left, right, up, or down					Measurement & Grids
10	10.1	Compare objects according to length, weight, or volume using a variety of nonstandard units					
10	10.2	Order objects according to length					
13	13.1	Summarize information from graphs, including pictographs, tally charts, bar graphs, or Venn diagrams					Data & Probability
	P.1	Identify possible outcomes of an experiment (certain, impossible, more likely, and less likely)					

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