

# ROBERTSON COUNTY SCHOOLS

## MASTERY GUIDE, 2004

### THIRD GRADE

#### FIRST NINE WEEKS

#### MATH

##### **Place Value Concepts**

- 3.1.1.a. Count by tens, hundreds, or thousands from any whole number.
- 3.1.1.b. Skip count by tens from any whole number less than 1000.
- 3.1.1.c. Read and write whole numbers to 9999.
- 3.1.1.d. Represent numbers to 9999 in flexible ways using a variety of materials.
- 3.1.1.e. Identify whole numbers as odd or even.
- 3.1.1.f. Name the place value of a given digit in whole numbers to 10,000's.
- 3.1.1.g. Write whole numbers up to 10,000 in expanded form (e.g., 873 as  $800 + 70 + 3$ ).
- 3.1.1.m. Order whole numbers to 10,000.
- 3.1.1.n. Compare whole numbers to 9999 using the appropriate symbol (i.e.,  $<$ ,  $>$ ,  $=$ ).

##### **Algebra**

- 3.2.1.a. Sort objects by two or more attributes.
- 3.2.1.b. Devise, carry out, and explain a sorting scheme for a group of objects.
- 3.2.1.c. Identify the rules by which objects or numbers have been sorted.
- 3.2.4b. Show that subtraction is not commutative.
- 3.2.4c. Apply the addition and subtraction properties of zero.

##### **Add / Subtract Whole Numbers**

- 3.1.2e. Write and explain related addition and subtraction sentences.
- 3.1.3a. Use a variety of thinking strategies to add and subtract whole numbers (e.g., sums of ten, doubles plus one).

#### SECOND NINE WEEKS

#### MATH

##### **Data Analysis**

- 3.5.1.a. Pose questions and gather data to answer questions.
- 3.5.1.b. Read, interpret, and create tables using tally marks.
- 3.5.1.c. Create pictographs and bar graphs.
- 3.5.1.d. Read and interpret tables, bar graphs, and pictographs.

### **Probability**

- 3.5.2a. Make and justify predictions based on data gathered and displayed.
- 3.5.2b. Identify all possible outcomes of a simple experiment (e.g., spinner, coin toss, number cubes).
- 3.5.2c. Explain whether an event is certain, possible, or impossible.
- 3.5.2d. Explain whether an event is likely or unlikely.

### **Money / Decimals**

- 3.1.1k. Count the value of combinations of coins and bills up to \$5.
- 3.1.1l. Make change from a transaction that is less than a dollar.
- 3.1.1j. Compare and order decimal amounts in the context of money.

### **Add / Subtract Whole Numbers**

- 3.1.3h. Mentally calculate the sum or difference of any two numbers up to 100.

## **THIRD NINE WEEKS**

## **MATH**

### **Measurement**

- 3.4.1a. Determine when an estimate of a measurement is sufficient.
- 3.4.1b. **Demonstrate understanding of the concepts of perimeter, area, and capacity.**
- 3.4.2a. Solve real-world problems using a calendar.
- 3.4.2b. **Use strategies to estimate length, perimeter, area, capacity, weight, time, and temperature.**
- 3.4.2c. Explain the relationships among inches, feet, and yards.
- 3.4.2d. Measure length to the nearest centimeter, foot, half-inch, and inch.
- 3.4.2e. Measure the capacity of a container in liters, cups, pints, quarts, and gallons.
- 3.4.2f. Measure to the nearest ounce, pound, kilogram, and gram.
- 3.4.2h. **Select and apply appropriate standard units to measure length, area, capacity, weight, time, and temperature.**
- 3.4.2i. Solve real-world problems involving measurement and elapsed time to the half-hour.
- 3.4.2j. Read thermometers with Fahrenheit and Celsius scales.
- 3.4.2k. Read and write time up to five-minute intervals.

### **Algebra**

- 3.2.4d. Apply the zero and identity properties of multiplication.
- 3.2.4a. Apply the commutative property of addition and multiplication.
- 3.2.4e. Use arrays to represent the commutative property of multiplication.
- 3.2.5a. Describe qualitative change (e.g., a student growing taller).
- 3.2.5b. Describe quantitative change (e.g., a student growing two inches in one year).

### **Multiplication and Introduction to Division**

- 3.1.2a. Relate skip counting to multiplication.
- 3.1.2b. Connect division to sharing situations.
- 3.1.2c. Demonstrate multiplication using repeated addition (e.g., arrays).
- 3.1.3c. Relate adding doubles to multiplying by two.
- 3.1.3d. Use known multiplication facts to determine a related product (e.g.,  $9 \times 7$  is 7 less than  $10 \times 7$ ).
- 3.1.3e. Use the multiplication facts 0, 1, 2, 5, and 10 as a factor.

- 3.4.04b. Recognize the relationship of local governments to the state, the nation, and the world.

### **Individuals, Groups, and Interactions**

- 3.6.01a. Give examples of conflict, cooperation, and interdependence among individuals, groups, and nations.
- 3.6.02a. Identify examples of actions individuals and groups can take to improve the community.
- 3.6.02b. Identify examples of nonprofit and / or civic organizations such as the Red Cross and explain how they serve the common good.

## **FOURTH NINE WEEKS**

### **MATH**

#### **Geometry**

- 3.3.1a. Recognize, name, build, draw, and compare two- and three-dimensional geometric figures.
- 3.3.1b. Recognize congruent geometric figures.
- 3.3.1c. Identify and draw lines of symmetry in two-dimensional designs and shapes.
- 3.3.1d. Identify and draw horizontal and vertical lines.
- 3.3.1e. Identify and draw diagonals of polygons.
- 3.3.3a. Predict and describe the results of sliding, flipping, and turning in two-dimensional shapes.
- 3.3.2b. Identify a location on a grid using whole number coordinates.

#### **Measurement**

- 3.4.1b. **Demonstrate understanding of the concepts of perimeter, area, and capacity.**
- 3.4.2b. **Use strategies to estimate length, perimeter, area, capacity, weight, time, and temperature.**
- 3.4.2g. Find the perimeter of polygons.
- 3.4.2h. **Select and apply appropriate standard units to measure length, area, capacity, weight, time, and temperature.**

**Fractions**

- 3.3.2a. Identify the position of  $\frac{1}{2}$ ,  $\frac{1}{3}$ , and  $\frac{1}{4}$  on the number line.
- 3.1.1h. Connect the spoken, written, concrete, and pictorial representations of fractions with denominators up to ten.
- 3.1.1i. Compare unit fractions with denominators up to ten.

**Numbers and Operations**

- 3.1.3b. Explain the reasonableness of a solution.
- 3.1.3f. Explain and justify solution strategies in problem solving.
- 3.1.3g. Select and apply an appropriate problem-solving strategy (e.g., organized list, guess and check, diagram, table).
- 3.1.3i. Use strategies to estimate in problem –solving situations.
- 3.1.2d. Write and identify number sentences that describe real-world situations involving addition, subtraction, and multiplication.

**Algebra**

- 3.2.2a. Recognize, describe, extend, translate, and create patterns.
- 3.2.2b. Describe a growing pattern.
- 3.2.2c. Determine the output for a particular input given a one-operation function rule involving addition, subtraction, or multiplication.
- 3.2.3a. Describe the commutative property of addition and multiplication with words and symbols.
- 3.2.3b. Interpret and solve open sentences that involve addition, subtraction, and multiplication.
- 3.2.3c. Use the language and symbols of mathematics appropriately to communicate mathematical thinking.
- 3.2.3d. Demonstrate understanding that an equation is a number sentence stating two quantities are equal.