SECOND GRADE MATHEMATICS – Unit 5

Dear Parents,

During Unit 5, your child will describe and analyze shapes by examining their sides and angles. Students will investigate, describe, and reason about decomposing and combining shapes to make other shapes. Students will partition circles and rectangles into two, three or four equal shares, describing the shares using the words, halves, thirds, and half of. Students will recognize that equal shares of identical wholes need to have the same shape. Students will also work with equal groups of objects to gain foundations for multiplication. They will identify odd and even numbers based on equal groups of two. Students will begin to use number patterns to extend their knowledge of properties of numbers and operations. When skip counting to solve repeated addition problems students begin to build the foundations for understanding multiples and factors.

MEASUREMENT

Students need to:

- 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.
- Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.
- Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.
- 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.
- 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.

KEY VOCABULARY

Array	Equal Parts	Pentagon
2-dimensional	Equation	Quadrilateral
3-dimensional	Even	Rectangle
Angle	Face	Repeated Addition
Circle	Fourths	Row
Column	Half/Halves	Skip Count
Congruent	Hexagon	Solid figure
Corner	Odd	Square
Cube	Partition	Symmetry
Equal Addends	Plane figure	Thirds
Equal Groups		Triangle

WAYS PARENTS CAN HELP

- Hunt for shapes in your world that are 2-dimensional. Try to identify them by name.
- Play a "Name My Shape" riddle game. Have the clues for the shape be the attributes of the shape. For example, "My shape has five sides and five angles. What is my shape?" pentagon.
- Have your child help you partition (cut) a rectangular (pan of brownies) or circular (cake) food item into two, three or four equal shares and then identify the share using the words halves, thirds or fourths.
- Rows vs. Columns: Look for opportunities to show your child *arrays* in the real world, i.e. seats in a theater, muffin baking tin, ice cube trays, arrangements of fruit in the grocery store, eggs in a carton, etc.
- Roll an Array! Use small candies or buttons to build the arrays. Roll two dice … the first roll will be the number of rows in the array and the second roll will be the number of columns. Use the small items to create an array. Count the total number of objects in the array. To make it even more fun, have a partner roll the dice, build an array, then count the total number of pieces in the array. The player with the greatest number of pieces in their array wins.