**Family Letter**

**2nd Grade Geometry Concepts**

Dear Parents,

During the week(s) of <date> we will be starting a new math unit focused on geometry. The purpose of this letter is to give you some background information about our new unit.

**Focus of the Unit**

Geometry gives students ways to analyze our physical world. Building on what they learned in first grade (triangles, rectangles, squares, trapezoids, hexagons, circles, cubes, rectangular prisms, cones, spheres and cylinders) they will work with these additional shapes: quadrilaterals and pentagons. Another important concept explored during this unit is partitioning circles and rectangles into two, three, or four equal shares. Here’s an overview of our standards in geometry:

* Identify, describe, draw and create 2-D shapes
* Explore the area of shapes, especially rectangles
* Divide circles and rectangles into 2, 3, or 4 equal parts.
* Use the vocabulary halves, thirds, fourths/quarters
* Explore parts of whole shapes that have the same area but not the same shape

**Strategies that students will learn**

During our geometry unit students will build and draw different shapes. One tool we will use is a geoboard. He/she will stretch rubber bands around pegs on a geoboard to create shapes with specific attributes. Here’s an example of quadrilaterals on a geoboard:



Here’s an example of splitting (partitioning) a rectangle into halves in three different ways.



**Ideas for home support**

At home you can go on a shape hunt in you home or neighborhood. Look for squares, circles, triangles, spheres, rectangular prisms (boxes, doors), etc. Talk about how the triangles (or other shapes) are the same and different. Look for shapes that repeat such as shapes on tiles, wall paper, floors, etc. Tangrams are shape puzzles that can be used to create thousands of pictures. Attached to this newsletter is a copy of the tangram shapes. Cut them out and see how many shapes you and your child can make. When you look at a clock talk about half past the hour, quarter after the hour, quarter til the hour. There are also many great books to read about shapes. Listed below are a few that may be in our public library:

When a Line Bends...A Shape Begins by Rhonda Gowler Green

The Greedy Triangle by Marilyn Burns

Captain Invincible and the Space Shapes by Stuart J. Murphy

Grandfather Tang’s Story by Ann Tompert

If You Were a Quadrilateral by Molly Blaisdell.

Thank you for serving as partners in your child’s success as a mathematician!

<signature>

Tangram Pattern