
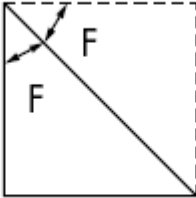




Dear Family,


Our class is starting a new unit in math about the geometry of 2-dimensional shapes. During this unit, students investigate the properties of shapes with special focus on quadrilaterals. They examine parallel and perpendicular lines, use right angles as a reference to identify the size of other angles, and use protractors and angle rulers to measure angles precisely.

Throughout the unit, students will work towards these goals for geometry:

| Goal | Examples |
|---|--|
| Identify quadrilaterals as any four-sided closed figure. | <p>Which of these figures are quadrilaterals? Explain how you decided.</p>  <p>"A and D are quadrilaterals. They have 4 sides, 4 angles, and 4 corners/vertices. There are no gaps (like B). C has six sides."</p> |
| Know that a right angle measures 90 degrees, and use this as a landmark to find angles of 30, 45, and 60 degrees. | <p>"I can use two of these triangles to make a square."</p> <p>$45 + 45 =$</p>  <p>"These two angles together make 90°, and they are equal, so each angle measures 45°."</p> |

Here is an activity to try at home. You can use this activity to enrich your child's mathematical learning experience.

Building Polygons You and your child can use household materials to create 2-dimensional figures. You can use toothpicks or straws for the sides of your polygons, and small marshmallows, clay, or jelly beans as fasteners for the vertices. How many different kinds of quadrilaterals can you build? How many different kinds of triangles? What different sized angles can you make?



The image shows two quadrilaterals. The first is a square, and the second is a parallelogram. Both are drawn with small circles at their vertices, representing fasteners like marshmallows or jelly beans.

In our math class, students spend time discussing problems in depth and are asked to share their reasoning and solutions. It is important that children solve math problems in ways that make sense to them. At home, encourage your child to explain the math thinking that supports those solutions.

Sincerely,

The 4th Grade Team