

Dear Parents,

Over the next several weeks, we will be learning about **two-dimensional shapes** and **fractions** in math! The information below will help you to support your child as they learn these exciting, yet important first grade math skills.

### The GOAL:

By the end of the unit, your child should be able to **identify and describe two-dimensional shapes**. They should also be able to **partition (divide) two-dimensional shapes into equal parts**.

#### Two-Dimensional Shapes

Help your child learn about shapes:

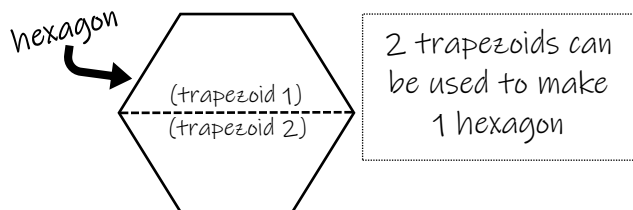
Define shapes with curved sides, straight sides, open or closed shapes.

Identify shapes by name: circle, square, triangle, rectangle, rhombus, trapezoid, & hexagon.

(see other side for examples!)

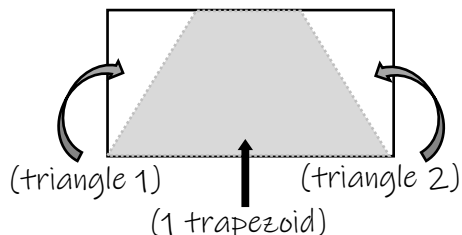
**Compose** (or build) shapes within other shapes:

For example, I can make a hexagon using two trapezoids.



**Decompose** (or take apart) shapes:

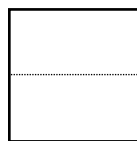
For example, I can find two triangles and a trapezoid within a rectangle.



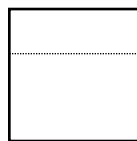
#### Fractions

Help your child partition (divide) shapes:

Identify equal and unequal parts.

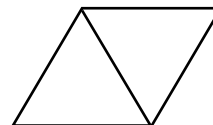


This square has equal parts.



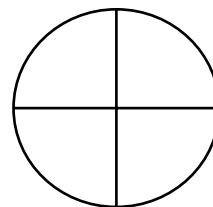
This square does not have equal parts.

Divide shapes into halves:



The rhombus is divided into 2 equal parts.

Divide shapes into quarters:



The circle is divided into 4 equal parts.

Grade 1 Math: PA Core Math Standards in Unit 3

CC.2.3.1.A.1: Compose and distinguish between two- and three-dimensional shapes based on their attributes.

CC.2.3.1.A.2: Use the understanding of fractions to partition shapes into halves and quarter.

-- HOW TO HELP AT HOME --

Two-Dimensional Shapes:

- Provide opportunities to play with and name shapes using household items
- Use crayons, markers, sidewalk chalk to draw shapes and label them
- Use string, Play-doh, spaghetti, etc., to make shapes
- Talk about the parts of a shape (how many sides, corners, straight or curved lines)

Fractions:

- Allow your child to help prepare food (cut a sandwich in **half** or cut the pizza into **quarters**)
- Point out objects in real life that are divided into equal parts (windows, doors, fence posts, letters, pie, etc.)

-- KEY MATH VOCABULARY --

**(Defining) Attribute:** a characteristic or quality that defines a shape (e.g., 4 equal sides is a defining attribute of a square.)

**Composite:** a figure or shape that can be divided into more than one of the basic shapes (e.g., a hexagon is a composite shape because it can be made with two trapezoids **OR** one trapezoid and three triangles.)

**Two-dimensional:** having only two dimensions, it is flat.

