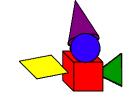
Shape It Up!



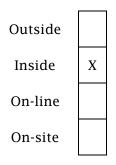
Strands:

Number & Quantity	
Algebra	
Functions	
Geometry	X
Statistics & Probability	

Materials Needed:

- 2D and 3D shapes
- 2D and 3D Shapes page, cut into cards

Where:





What shapes can you find around your house? How are they the same? How are they different?

Set-Up:

• Ask players to gather 2 dimensional and 3 dimensional shapes from around the house. Some suggestions follow:

Cube: Triangular Prism:

Blocks (children's toys) Toblerone candy container

Rectangular Prism: Triangular Pyramid:

Cereal box Construct with building toys or paper

Macaroni & cheese box Square Pyramid:

jewelry gift box Ferraro Rochet candy box (at holidays)

spaghetti box Sphere: Cone: Balls

Party hat **Hemisphere**:

Funnel Bowl

Snow cone cup

Cylinder:

Paper towel/ toilet paper roll

Slurpee cup lid
soup ladle
measuring spoon

oatmeal container

pill bottle

- Without grouping by shape, place items in the middle of the players. There should be at least one of each shape per player.
- Choose a leader who is familiar with all of the shapes.

Object of the Activity: Recognize three dimensional shapes and the shapes that can be found on their surfaces.

Leading the Game:

- 1. Pick up a shape and ask players to find a shape like the one you're holding.
- 2. Ask each player to state, one at a time, a property of the item they chose that led them to think it was the same shape as your shape. Players should state different properties rather than repeat another player's choice. Similarities should be meaningful observations about the shape's properties, rather than having to do with properties such as color.
- 3. Ask players if they know the shape's name, how many sides it has, what other features the shape has, what the shape of the faces are, etc.
- 4. Have a player who has picked up a shape that is incorrect to state a similarity their shape has with yours. If that is not possible, ask the player to state a difference between their shape and yours.
- 5. Scoring: Each student who states a meaningful property earns a point.
- 6. Replace the shapes randomly in the center of the group and play again.

Think About It:

- 1. Which shapes are similar? Why do you think so?
- 2. Which items should not be grouped together by shape? Why do you think so?

Variation:

Line Them Up: After three or more rounds of *Shape It Up!*, ask players to line up the shapes in a physical bar graph according to their three dimensional shape names. Use the 3D shapes cards to label the horizontal axis before students place the shapes. Repeat using the 2D shape cards and names. Ask students how the bar graphs changed.

Helpful Hints:

• It is important to ask open-ended instead of yes or no questions. For

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