Core Content

Cluster Title: Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

Standard 2: Correctly name shapes regardless of their orientations or overall size.

MASTERY Patterns of Reasoning:

Conceptual:
- Students will understand that shape does not change regardless of its size.
- Students will understand how the facets on three-dimensional shapes are two-dimensional shapes (squares make cubes; triangles and a square make a pyramid, etc.).

Procedural:
- Students can find shapes of various sizes and orientations in their environment.
- Students can manipulate two- and three-dimensional shapes (flip, slide, rotate, turn, etc.).
- Students can describe the attributes of two- and three-dimensional shapes.
- Students can use and name other shapes to make different shapes (e.g., triangles to make a hexagon).

Representational:
- Students can make pictures with two- and three-dimensional shapes (using blocks, attribute blocks, or pattern blocks).
- Students can build with blocks and identify basic shapes.
## Supports for Teachers

### Critical Background Knowledge

<table>
<thead>
<tr>
<th>Conceptual:</th>
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<tbody>
<tr>
<td>Students will know names of shapes regardless of orientation (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).</td>
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<tr>
<td>Students will have exposure to two-dimensional and three-dimensional shapes.</td>
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### Procedural:

- Students can manipulate shapes by turning, flipping, and rotating orientations.
- Students can search class, school and home environments for shapes.
- Students can name the shapes regardless of orientation (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).
- Students can identify shapes found in the environment.

### Representational:

- Students can draw two-dimensional shapes.

### Academic Vocabulary and Notation

- flip, rotate, turn, triangle, square, circle, rectangle, hexagon, cone, cylinder, cube, sphere, attribute, large, small, medium, describe, facet (the flat side of a three-dimensional shape), vertices (where facets join)

### Instructional Strategies Used

<table>
<thead>
<tr>
<th>Show and Teach: Have the students bring an object that matches the shape you identify and describe the attributes.</th>
<th>Resources Used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feel and Tell: Students reach in to a hiding box/bag/can. They describe the shape they feel. Other students guess what shape the student is describing.</td>
<td>Hoban, Tana. <em>Shapes, Shapes, Shapes</em>. Greenwillow Books, 1996.</td>
</tr>
</tbody>
</table>

Code: K.G.2
sit in a circle and pass various shapes around in rhythm with the chant. “Acka backa soda cracker, acka backa boo. Acka backa soda cracker, pass to you. Please name the shape that was passed to you!”

String Shapes: Give the students a long piece of string and have the students work in small groups to create the shape you call. They stretch the string to make circles, squares, etc.

Students use geoboards to make the shapes.

### Assessment Tasks Used

#### Skill-Based Task:
Show the students a set of shapes with different sizes and orientations. Ask them to name them.

Ask the students to describe the attributes of specified two- or three-dimensional shape. “Describe a cone. Tell me the attributes of a triangle.”

#### Problem Task:
Joey has a shape with 4 corners and 4 equal sides. What shape does he have? Explain your answer with a picture, with objects or in writing.

Esperanza wants to wrap her teddy bear. Which shapes of wrapping paper could she use? Explain what shape you chose and why.