

## Core Content

**Cluster Title:** Reason with shapes and their attributes.

**Standard 1:** Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

Note: Sizes are compared directly or visually, not compared by measuring.

**MASTERY Patterns of Reasoning:**

**Conceptual:**

Students will understand that two-dimensional and three-dimensional shapes have angles.

Students will understand that three-dimensional shapes have faces.

Students will understand the difference between two-dimensional shapes and three-dimensional shapes.

Students will recognize the attributes of a triangle, quadrilateral, pentagon, hexagon, and cube.

Students will recognize that all four-sided shapes are quadrilaterals.

**Procedural:**

Students can identify and describe a two-dimensional shape.

Students can identify and describe a three-dimensional shape.

Students can identify the number of angles on a triangle, quadrilateral, pentagon, and hexagon.

Students can identify the number of equal faces on a cube.

**Representational:**

Students can draw a two-dimensional shape when given a specific number of angles.

Students can draw a three-dimensional shape when given a specific number of equal faces.

Students can build/find shapes when given specific attributes.

Students can write about the differences between a two-dimensional shape and a three-dimensional shape.

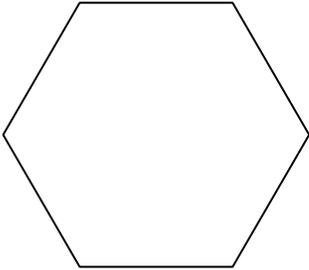
## Supports for Teachers

<b>Critical Background Knowledge</b>	
<p><b>Conceptual:</b> Students will understand the attributes of a shape (e.g., angles, faces, number of sides, sides of equal length).</p> <p><b>Procedural:</b> Students can identify and describe two-dimensional shapes (rectangles, squares, triangles, circles, half circles, and quarter circles). Students can identify and describe three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders).</p> <p><b>Representational:</b> Students can build and draw shapes to possess specific attributes.</p>	
<b>Academic Vocabulary and Notation</b>	
<p>two-dimensional (plane shape), three-dimensional (solid shape), side, edge, angle, face, triangle, quadrilateral, pentagon, hexagon, cube</p>	
<b>Instructional Strategies Used</b>	<b>Resources Used</b>
<ul style="list-style-type: none"> <li>• Have students find real-world representations of three-dimensional and two-dimensional shapes (e.g., a shape scavenger hunt, shape walk, etc.).</li> <li>• Have students create two-dimensional shapes using a number of different methods (e.g., white boards, geoboards, pretzels, etc.).</li> <li>• Have students create a cube using a number of different methods (e.g., paper, toothpicks as sides and marshmallows as corners, clay, etc.).</li> <li>• View the shapes in different orientations.</li> <li>• Manipulate and combine pattern blocks into different shapes.</li> <li>• “I have... who has?” (“I have a triangle. Who has a</li> </ul>	<p>A Maths Dictionary for Kids: <a href="http://www.amathsdictionaryforkids.com">http://www.amathsdictionaryforkids.com</a></p> <p>Burns, Marilyn. <i>The Greedy Triangle</i>. Scholastic Press, 1999.</p> <p>Feldman, Judy. <i>Shapes in Nature</i>. Children’s Press, 1991.</p> <p>BrainPOP Jr. Geometry <a href="http://www.brainpopjr.com/math/geometry/">http://www.brainpopjr.com/math/geometry/</a></p> <p>Shapes Galore Lesson Plan <a href="http://www.uen.org/Lessonplan/preview.cgi?LPid=21489">http://www.uen.org/Lessonplan/preview.cgi?LPid=21489</a></p>

<p>quadrilateral with four equal sides? I have a square. Who has a two-dimensional shape with six angles?”)</p> <ul style="list-style-type: none"> <li>Sort shapes in various ways (by number of angles, number of faces, three-dimensional shapes vs. two-dimensional shapes, etc.).</li> <li>Draw a picture using specific two-dimensional shapes (e.g., a picture of a house using a quadrilateral, triangle, pentagon, hexagon, etc.).</li> </ul>	<p>That's So Square Lesson Plan  <a href="http://www.uen.org/Lessonplan/preview.cgi?LPid=10964">http://www.uen.org/Lessonplan/preview.cgi?LPid=10964</a></p>
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**Assessment Tasks Used**

**Skill-Based Task:**  
 Look at the shape below. Name the shape and identify the number of sides and angles.



Name of shape: \_\_\_\_\_

Number of angles: \_\_\_\_\_

Number of sides: \_\_\_\_\_

**Problem Task:**  
 Farmer Brown wants to plant a garden. He wants his garden to have five angles and five equal sides. Draw the shape of Farmer Brown's garden.

Name the shape of the garden: \_\_\_\_\_