# Unit 4b-Shapes And Their Attributes

Content Area: **Mathematics**
Course(s): **Math 2**
Time Period: **Marking Period 4**
Length: **MP4 Topic 13:13-1 to 13-8**
Status: **Published**

## Essential Questions

- How can you identify and describe different shapes?

## Big Ideas

- **2-Dimensional Shapes:** Students will explore the sides, vertices, and angles of different polygons. They will use these attributes to identify, describe, and draw triangles, quadrilaterals, pentagons, and hexagons.
- **Cubes:** Students will investigate the number of faces, edges, and vertices of a cube.
- **Partition 2-Dimensional Shapes:** Students will use square tiles to divide rectangles into equal squares. Then they will use repeated addition to count the number of squares.
- **Halves, Thirds, and Fourths:** Students will partition rectangles, squares, and circles into 2,3, or 4 equal shares and identify the shares as halves, thirds, or fourths.
- **Reasoning:** Students will use repeated reasoning to divide rectangles into rows and columns and to create designs with equal shares.

## CSDT Technology Integration

8.1.2.DA.3: Identify and describe patterns in data visualizations.

Activity:
In whole group, the teacher will model how to create a Google Spreadsheet. This tool will be used to create a graph of student's favorite season. Students will take turns adding to the spreadsheet on the SmartTV. Then, students will watch as the teacher interactively models how to sort information to learn about greatest or least.

## Enduring Understandings

**Geometry**
**2.G.A.1** Recognize and draw shapes having specified attributes, such as a given number of angles or a given

number of equal faces.5 Identify triangles, quadrilaterals, pentagons, hexagons, and cubes

**2.G.A.2** Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.

**2.G.A.3** Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

**Operations and Algebraic Thinking**

**2.OA.C.4** Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

## Mathematical Practices Focus

8. Look for and express regularity in repeated reasoning.