

# G: Geometry

Content Area: **Mathematics**  
Course(s): **Mathematics 1**  
Time Period: **March**  
Length: **N/A**  
Status: **Published**

## Enduring Understandings

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Identifying the properties of shapes can help sort them.

By breaking apart large shapes we can make new shapes and name them as halves, fourths/quarters.

## Essential Questions

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Where are geometric shapes found in everyday objects?

## Content

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Learners will:

- Reason with shapes and their attributes.

To show evidence of meeting this standard, students will be able to:

- Explain the similarities and differences in geometric shapes (plane and solids)
- Identify fractional parts of a shape divided into halves and fourths/quarters
- Divide a circle or rectangle into fractional parts and use mathematical language to describe the action (halves, quarters, fourths)
- Demonstrate with manipulatives that the more parts a shape is broken into, the smaller the parts will be.

## Vocabulary

Two dimensional (2D) shapes, sides, vertices, edges, faces, flat surface, rectangular prism, three dimensional (3D) shapes, equal, shares, halves, fourths, quarters

## **Modifications and Accommodations:**

- Once shapes and their characteristics have been discussed, create a shape hunt in the classroom.
- Find objects in the classroom and/or outdoors, that can be cut to model equal halves, thirds, fourths, etc.
- Pair share activity: understanding fractional parts will be demonstrated through construction of fraction pizzas.

## **Resources**

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### **Math Program**

enVision2.0 First Grade Math - Topics 14 and 15

### **Math Literature:**

#### ***Shapes***

*Mouse Shapes* by Ellen Stoll Walsh

*The Greedy Triangle* by Marilyn Burns

*When a Line Bends...A Shape Bends* Rhonda Growler Greene

*Shapes, Shapes, Shapes* by Tana Hoben

*The Shape of Things* Dayle Ann Dodds

#### ***Equal Shares***

*Jump Kangaroo, Jump* by Stuart J Murphy

*Eating Fractions* by Bruce McMillan

*Give Me Half* By Stuart J Murphy

*Fraction Fun* by David A. Adler

*Whole-y Cow Fractions Are Fun* by Taryn Souders

*Full House: An Invitation to Fractions*

*The Doorbell Rang* by Dale Ann Dodds

### **Websites**

<https://www.georgiastandards.org/Georgia-Standards/Pages/Math-K-5.aspx>

- Using the drop down menu on the right hand side of the page; select grade one, unit three. You will find the Unit titled *Understanding Shapes and Fractions*. This unit contains standards based lessons for all of the Geometry standards in first grade.

[Ten Marks](#)

[Eureka Math Grade 1 Geometry](#)

[Brain Pop Jr. Geometry First Grade](#)

[Khan Academy First Grade Geometry](#)

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## **Skills**

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### **1.G.1 Skills:**

Use attributes to match shapes.

Define 2-D shapes by their attributes.

Use materials to build and draw 2-D shapes.

Define 3-D shapes by their number of edges, vertices, and faces or flat surfaces.

Choose defining attributes of 3-D shapes.

Find the differences in defining attributes between various shapes.

### **1.G.2 Skills**

Combine 2-D shapes to make another 2-D shape.

Combine 3-D shapes to make another 3-D shape.

Find the differences among various shapes.

### 1.G.3 Skills

Determine whether shapes are divided into equal shares.

Divide shapes into 2 and 4 equal shares and use words to describe those shares.

Understand that more equal shares of the same whole create smaller shares.

Make a drawing or diagram to show a problem about equal shares

## Standards

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|------------|--|
| MA.1.OA    | Operations and Algebraic Thinking  |
| MA.1.G.A   | Reason with shapes and their attributes.   |
| MA.1.G.A.1 | Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.  |
| MA.1.G.A.2 | Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. |