CCSS Geometry (G)

Unpacking the Standards

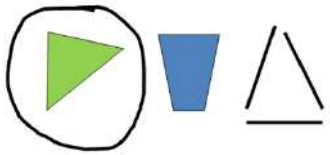
Grade 1

Geometry: **Reason with shapes and their attributes.**
Standard: 1.G.1
Cluster: additional/supporting (a/s)

Math Practices: MP 1, 3, 4, 7

Related CA Standard
MG 2.2 Classify familiar plane and solid objects by common attributes

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. Note: *For two and three-dimensional shapes

Essential Skills/Concepts	Teaching Notes/Strategies	Resources
- Understand attributes that make up a shape - Understand the difference between defining and non-defining attributes: **Definining Attributes:** number of sides, edges, faces, vertices/points, straight sides, closed figure **Non-defining attributes:** color, overall size and orienatation - Know how to draw/build shapes - Compare and Contrast two and three-dimensional shapes - Expose students to irregular shapes and discuss why they are not regular shapes	- Shape Exploration Station - Group projects/Presentations on specific shapes - Collaborative Conversations Example: A student might describe a triangle as "right side up" or "red", but students learn these are not defining attributes because they are not relevant to whether a shape is a triangle or not. "I know that this shape is a triangle because it has 3 sides. It's also closed, not open." 	Board Math Paper/tape Posters **Academic Vocabulary:** shape, closed, open, side, attribute, feature, two-dimensional, rectangle, square, trapezoid, triangle, three-dimensional, cube, cone, prism, cylinder, regular shape From previous grades: circle, rectangle, hexagon, sphere, cube, cone, cylinder "**Attributes**" and "**features**" are used interchangeably as describing defining and non defining attributes

Geometry: Reason with shapes and their attributes.

Standard: 1.G.2
Cluster: additional/supporting (a/s)

Math Practices: MP 1, 4, 7

Related CA Standard
NA

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.

a figure made up of two or more geometric shapes,

Essential Skills/Concepts	Teaching Notes/Strategies	Resources
- Prerequisite 1.G.1 - Notice shapes within an already existing shape	- Provide cutout of shapes and ask students to combine them to make a particular shape - Solving shape puzzles - Constructing designs with shapes - Collaborative Conversations - Group Projects and Oral Presentations	Pattern Blocks Plastic Shapes Tangrams http://www.abcya.com/tangrams.htm (interactive tangram puzzles)
Academic Vocabulary: See 1.G.1		

Geometry: Reason with shapes and their attributes.

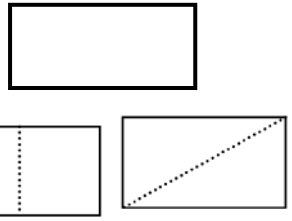
Standard: 1.G.3

Cluster: additional/supporting (a/s)

Math Practices: MP 2,3, 6

Related CA Standard
NA

Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves, fourths,* and *quarters*, and use the phrases *half of, fourth of,* and *quarter of.* Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.

Essential Skills/Concepts	Teaching Notes/Strategies	Resources
- Partition regions into equal shares using a context (e.g., cookies, pies, pizza). This is a foundational building block of fractions - Recognize that halves of two different wholes are not necessarily the same size. - Partition = share equally **Academic Vocabulary:** See 1.G.1 partition, equal shares, halves, fourths, quarters, half of, fourth of, quarter of	Ex. How can you and a friend share equally (partition) this piece of paper so that you both have the same amount of paper to paint a picture?  - Anchor Chart - Cut paper plates/paper into halves/fourths - Fold paper into partitions - Board Math - Collaborative Conversations - Group Projects - Exploration Station - Real life situations (cutting a cake/pizza)	Paper plates Paper