Grades K-6 Geometry Coherence Card Sort

Grades K-6 Geometry Standards	Grades K-6 Geometry Standards
Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.	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.
Classify polygons by attributes. a. Recognize and classify polygons based on the number of sides and vertices (triangles quadrilaterals, pentagons, and hexagons). b. Recognize and classify quadrilaterals (rectangles, squares, parallelograms, rhombuses, trapezoids) by side lengths and angle measures, understanding that shapes in different categories may share attributes and that the shared attributes can define a larger category. c. Identify shapes that do not belong to a given category or subcategory.	Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.

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Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.	Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category and identify right triangles.
Identify lines of symmetry a. Recognize a line of symmetry for a two-dimensional figure. b. Identify line-symmetric figures and draw lines of symmetry.	Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second.
Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane and interpret coordinate values of points in the context of the situation.	Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.

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Classify two-dimensional figures in a hierarchy based on properties.	Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and quadrilaterals; apply these techniques in the context of solving real-world and mathematical problems.
Find the volume of a right rectangular prism with rational number edge lengths. Apply the formulas $V = l\,w\,h$ and $V = B\,h$ to find volumes of right rectangular prisms with rational number edge lengths in the context of solving real-world and mathematical problems.	Draw polygons in the coordinate plane given coordinates for the vertices; use coordinates to find the length of a side joining points with the same first coordinate or the same second coordinate. Apply these techniques in the context of solving real-world and mathematical problems.
Classify three-dimensional figures including cubes, prisms, pyramids, cones and spheres.	Name and describe shapes in the environment. a. Describe objects in the environment using names of shapes. b. Describe the relative positions of these objects using terms such as a*bove, below, in front of, behind, and next to.*

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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.	Recognize and draw shapes having specified attributes, such as a given number of angles or sides. Identify triangles, quadrilaterals, pentagons, hexagons and cubes (identify number of faces).
Distinguish between defining attributes versus non-defining attributes; build and draw shapes to possess defining attributes.	Compose Shapes. a. Compose two-dimensional shapes to create rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles composite shape, and compose new shapes from the composite shapes. b. Compose 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 shapes.
Model shapes in the world by building figures from components and drawing shapes.	Compose simple shapes to form larger shapes.

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Identify shapes as two-dimensional or three-dimensional.	Describe the similarities, differences, and attributes of two and three dimensional shapes using different sizes and orientations.
	Correctly name shapes regardless of their orientations or overall size.