K.G.1	1.G.1	2.G.1	3.G.1	4.G.1
Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.	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.	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.	Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.	Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

5.G.1	6.G.1	7.G.1	8.G.1	9-12.G.CO.1
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.	Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes; apply these techniques in the context of solving real-world and mathematical problems.	Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.	Verify experimentally the properties of rotations, reflections, and translations: a. Lines are taken to lines, and line segments to line segments of the same length. b. Angles are taken to angles of the same measure. c. Parallel lines are taken to parallel lines.	Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment, based on the undefined notions of point, line, distance along a line, and distance around a circular arc.

4.G.1—Model shapes in the world by building shapes from components

Lesson- What's in a Shape: Exploring characteristics of shapes by making and using tangrams

Lesson	Modified lesson
Introduction—teacher motivates students to think about shapes that are common in the world around them by asking questions, such as: What's the simplest shape you can make just with straight lines? What's this shape called? (A triangle)	Same introduction, including visuals or manipulative of the shapes
Activity 1 Constructing Tangrams : Students create their own set of tangrams using heavy colored cardboard. Studnets start with a rectangular piece of paper, folding and cutting to create their set.	Provide some or all of these supports below, as needed: Adaptive or primer scissors Lighter weight paper Visual model for folding, or pre-folded paper Peer modeling Staff support Plastic tangram set
Activity 2 How Do Tangrams Work? a) Give student a Worksheet #1 with a shape and data sheet b) Use combinations of their tangram pieces to recreate the shape on their worksheet c) Fill out a data sheet to show which shapes they used to recreate the shape d) Try making that same shape using as many different combination of tangrams as possible	a) Give student concrete shape manipulatives and a template to match and sort all of the shapes b) (continue above activity) c) Once all shapes are sorted, count how many are in each group and write that number at the bottom of page d) Using tangram pieces, devise a shape of their own and trace the outline of the shape
Activity 3 How are the shapes related? Discuss and analyze how the shapes are related and how they are different. a) Define some characteristics of other shapes (i.e. squares, rectangles, parallelograms)—use wall chart to match characteristics with the shape b) How are they related and how are they different? c) What processes did you use to figure out the shapes? d) Which has the larger area, the square or the medium triangle, etc. ? e) What are the relationships among the various tangram pieces? f) Is there a basic shape that could be used to make them all? g) How can you prove your answers? Try it!—students get in small groups to try this out	a) with teacher support put the characteristic on the chart with the corresponding shape b) n/a c) n/a d) student puts the shapes in order from largest area to smallest area on the wall e) n/a f) n/a g) student is put in a small group with peer tutors—as everyone in the groups tries to prove the answer they assist the student in moving the tangrams in different shapes

Differentiated Lesson plan template