Topic A

Building and Drawing Flat and Solid Shapes

K.CC.4d, K.G.5, K.G.2, K.G.4

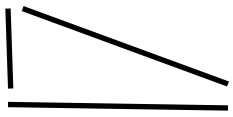
Focus Standards:		K.CC.4	Understand the relationship between numbers and quantities; connect counting to cardinality. d. Develop understanding of ordinal numbers (first through tenth) to describe the relative position and magnitude of whole numbers.
		K.G.5	Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.
Instructional Days:		4	
Coherence	**-Links from:**	GPK–M2	Shapes
	-Links to:	G1–M5	Identifying, Composing, and Partitioning Shapes

In this final kindergarten module, students extend and build upon their learning about two- and three-dimensional shapes from Module 2. Students use their knowledge about common features of flats and solids to create, construct, and compose shapes by building and drawing. Throughout, they use ordinal numbers to describe the systematic construction of their flats (**K.CC.4d**).

Lesson 1 asks students to apply their knowledge of shape attributes (number and type of sides and corners) by constructing flat shapes using straws and clay (**K.G.5**). For example, when constructing a triangle, the student uses three equal, unconnected straws and connects the endpoints to form a three-sided, closed figure. This represents a departure from viewing the figure as being inclusive of the interior to now considering the shape as represented only by the outline, a perspective that eventually develops into formal definitions of triangles, quadrilaterals, and polygons (e.g., a triangle is formally defined in Grade 4 as consisting of three non-collinear points together with the three segments joining them). Students use ordination to thirds to tell the steps they take to build their flat shapes (**K.CC.4d**).

In Lesson 2, students investigate whether varied side length affects their ability to construct a shape. "What happens if I use two long straws and one short straw to build my triangle?"

3 equal straws



3 unequal straws

Lessons 3 and 4 build upon the comparisons students made between two- and three-dimensional shapes in Module 2 (**K.G.4**). In Lesson 3, students use the flats created from straws and clay in Lesson 1 as the foundation for composing solids that model real-world shapes and figures (**K.G.5**). They use these solids to count faces, edges, and corners. In Lesson 4, they relate spatial understanding (relative position) and number (magnitude) by using ordinal numbers to describe the position of flat shapes within a set of 10 (**K.CC.4d**).

A Teaching Sequence Toward Mastery of Building and Drawing Flat and Solid Shapes	
Objective 1:	**Describe the systematic construction of flat shapes using ordinal numbers. (Lesson 1)**
Objective 2:	**Build flat shapes with varying side lengths and record with drawings. (Lesson 2)**
Objective 3:	**Compose solids using flat shapes as a foundation. (Lesson 3)**
Objective 4:	**Describe the relative position of shapes using ordinal numbers. (Lesson 4)**