Let's Build 2-D Shapes

Grade Level: Kindergarten

Mathematics Domain and Cluster:

Domain: Geometry

Cluster: Analyze, compare, create, and compose shapes.

Common Core standard(s) being assessed (if the task is intended to assess only one part of the standard, underline that part of the standard):

K.G.4: <u>Analyze and compare two-</u> and three-<u>dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and <u>vertices/"corners"</u>) and other attributes (e.g., having sides of equal length).</u>

K.G.5: Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.

Student Materials:

- Toothpicks (6 per student)
- Yarn (1 per student, precut into 6-inch pieces)

Teacher Materials:

- Let's Build 2-D Shapes Checklist
- Pencil

Directions (for teacher to administer assessment task):

Teacher should assess students individually or in small groups.

Ask question prompts.

Prompt:

- Give the student the toothpicks. Say: Use some of the toothpicks to make a square. How many sides does it have? How many corners/vertices? Use the toothpicks to make a triangle. How many sides does it have? How many corners/vertices? Use the toothpicks to make a rectangle. How many sides does it have? How many corners/vertices? Use the toothpicks to make a hexagon. How many sides does it have? How many corners/vertices?
- Give the student a piece of yarn. Say: What 2-D/flat shape can you make with yarn, but not with toothpicks? Use the piece of yarn to make it. How many sides does it have? How many corners/vertices?

Correct or Model Answer:

Square: "4 sides, 4 corners/vertices"
Triangle: "3 sides, 3 corners/vertices"
Rectangle: "4 sides, 4 corners/vertices"
Hexagon: "6 sides, 6 corners/vertices"
"A Circle." "0 sides, 0 corners/vertices"

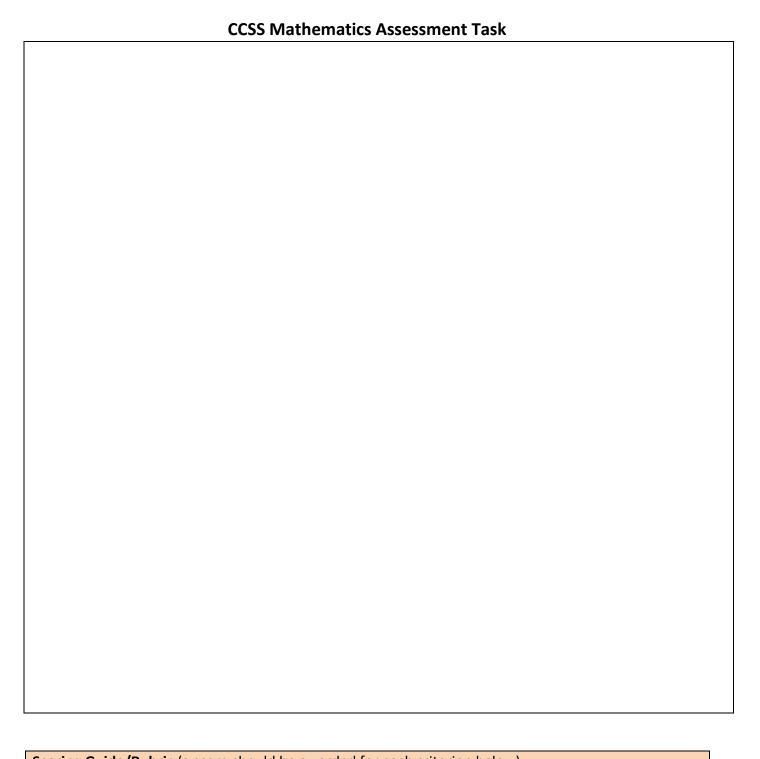
Scoring Guide/Rubric (a score should be awarded for each criterion below)								
Criteria (CCSS code)	0 points	1 Point	2 Points					
Compare similarities	Student accurately	Student accurately	Student accurately					
and differences of two-	names number of sides	names number of sides	identifies number of					
dimensional shapes.	and number of	and number of	sides and number of					
(K.G.4)	corners/vertices of 0-2	corners/vertices of 3-4	corners/vertices of all					
	2-D/flat shapes.	2-D/flat shapes.	5 2-D/flat shapes.					
Builds shapes from	Student does not	Student accurately	Student accurately					
components.	accurately build any 2-D	builds 1-4 2-D/flat	builds all 5 2-D/flat					
(K.G.5)	/flat shapes using	shapes using toothpicks	shapes using					
	toothpicks and yarn.	and yarn.	toothpicks and yarn.					

Let's Build 2-D Shapes Checklist

Record the modeling of flat shapes and the number of sides and corners/vertices students use to describe it's parts.

Key: V if student builds 2-D/flat shape correctly. V if student identifies correct number of sides. V if student identifies correct number of corners/vertices.

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Student Names	B ui ld s S h a p	Id e nt ifi es 4 Si d es	Id e nt ifi es 4 C or n er s	B ui ld s S h a p	Id e nt ifi es 3 Si d es	Id e nt ifi es 3 C or n er s	B ui ld s S h a p	Id e nt ifi es 4 Si d es	Id e nt ifi es 4 C or n er s	B ui ld s S h a p	ld e nt ifi es 6 Si d es	Id e nt ifi es 6 C or n er s	B ui ld s S h a p	ld e nt ifi es 0 Si d es	Id e nt ifi es O C or n er s



Scoring Guide/Rubric (a score should be awarded for each criterion below)								
Criteria (CCSS code)	0 points	1 Point	2 Points					
Compare similarities and differences of two-dimensional shapes. (K.G.4)	Student accurately names number of sides and number of corners/vertices of 0-2 2-D/flat shapes.	Student accurately names number of sides and number of corners/vertices of 3-4 2-D/flat shapes.	Student accurately identifies number of sides and number of corners/vertices of all 5 2-D/flat shapes.					
Builds shapes from components. (K.G.5)	Student does not accurately build any 2-D/flat shapes using toothpicks and yarn.	Student accurately builds 1-4 2-D/flat shapes using toothpicks and yarn.	Student accurately builds all 5 2-D/flat shapes using toothpicks and yarn.					