1st Grade MATH

CHAPTER 11 and 12: attributes of shapes, composing, and drawing shapes	**Days in Unit: 15**

1.G.1
1.G.2

Geometry – 1.G

A. Reason with shapes and their attributes.

1.G.1. 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.

1.G.2. 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.

NOTE: Students do not need to learn formal names such as "right rectangular prism."

LEARNING OUTCOMES:

- Draw and compose shapes.

LEARNING TARGETS:

- **1.G.1.3** Build and Draw identified shapes.
- **1.G.2.1** Create two-dimensional shapes.
- **1.G.2.2** Identify three-dimensional shapes.
- **1.G.2.3** Design/compose shapes to make a new shape.
- **1.G.2.4** Separate/Decompose shapes from a given shape.
- **1.G.2.5** Create new shapes from the combined shape.
- **1.G.2.6** Compose trapezoids.
- **1.G.2.7** Compose rectangular prisms, right circular cones, and right circular cylinders.

Unit Vocabulary:

- Defining Attributes
- Non-Defining Attributes
- Create
- Compose
- Separate
  Decompose
- Two-Dimensional Shape
- Triangle
- Rectangle
- Square
- Trapezoid

Essential Questions:

- How can I use defining attributes to describe shapes?
- How can I use defining attributes to sort shapes?
- What is the difference between a two-dimensional and three-dimensional shape?
- What is a composite shape?
- How can I use two shapes to create a new shape?

ONLINE INSTRUCTIONAL VIDEOS:

- Drawing 2D and 3D shapes instructional videos

http://www.mathgametime.com/videos/shape-drawing-video

- Identify 3D objects instructional videos

https://www.youtube.com/watch?v=xk2o045OyPs

- 3D video with song
https://www.youtube.com/watch?v=2cg-Uc556-Q

WHOLE GROUP ACTIVITIES:
(Instructional strategies, guided practice, independent practice)

My 2D Shapes Book-
Materials Needed:
- My 2D shapes book printable
https://drive.google.com/file/d/0B-A9qMIF_I6UYVUxLVlQY1lTWk9nU1duVjRmVFdPQQ/view?pli=1

Each student will complete a 2D shape book using the printable resource provided.

Geoboard Squares-
Materials Needed:
- Geoboard Printable - https://www.eduplace.com/math/mthexp/g5/visual/pdf/vs_g5_20.pdf

1. Make a square on a geoboard.
2. Using a ruler draw the square on geoboard paper and cut it out.
3. Make a square that is bigger or smaller than your first square. Draw your new square and cut it out.
4. Keep going until you have made and drawn as many different sized squares as you can.
5. Paste all of your different sized squares onto a sheet of paper in order from smallest to largest.

Tangram Squares-
Materials needed:
- Paper shapes

Before starting distribute one set of tangram pieces per partnership.
1. Students work with a partner. Make a square using the three smallest triangles from a tangram set.
2. Next, make a square using the five smallest pieces from your tangram set.
3. Finally, make a square using all seven pieces in your set. 5. Students record their work.

Using Shapes to Create Shapes-
Materials Needed:
- Paper shapes
- Glue
- Paper

1. Give each student a set of shapes cut out of paper, each student should have at least 2 triangles, squares, and trapezoids.
2. Students will create new shapes out of the shapes that they have and glue them to a sheet of paper.

Note: the goal is for students to use the shapes that they have to create new recognizable shapes (diamond, square, rectangles, etc.)

Talk About 3D shapes-
Materials Needed:

- Flashcards

http://mrprintables.com/printable-shapes-flash-cards-basic.html

- 3D shapes templates

http://www.fun-stuff-to-do.com/geometric-shapes-to-print.html

1. Begin by reviewing various 2D shapes and discussing their 3D counterparts.
2. Introduce new 3D shapes that have not been learned previously.
3. Ask students to discuss with a partner the differences between 2D and 3D shapes and have groups share their ideas with the class.

MINI LESSONS/CLOSURE ACTIVITIES

Shape Relay-
Teacher can create teams and let each team take turns drawing shapes on the board (teacher defines attributes of shapes from flashcards). The team with the most correctly drawn shapes wins.
http://mrprintables.com/printable-shapes-flash-cards-basic.html

Exit Tickets-
Teacher can use flash cards. Describe a shape using attributes and have each student draw the shape on a slip of paper. Or use the resource provided below:
Play Dough Relay Race-
Teacher can use flashcards to call out a shape. Students race to see who can make the shape first out of play dough.

Exit Tickets-
Teacher can use flash cards. Describe a shape using attributes and have each student draw the shape on a slip of paper. Or use the resource provided below.

SUMMATIVE ASSESSMENT RESOURCES:
Go Math Chapter 11 and 12 test