MA.1.GR.1.2

Overarching Standard: ***MA.1.GR.1*** *Identify and analyze two- and three-dimensional figures based on their defining attributes.*

Benchmark of Focus

MA.1.GR.1.2: Sketch two-dimensional figures when given defining attributes. Figures are limited to triangles, rectangles, squares and hexagons.

Benchmark Clarifications

There are no direct connections outside of this standard, however teachers are encouraged to find possible indirect connections.

Vertical Alignment

Previous Benchmarks	Next Benchmarks
• MA.K.GR.1.1/1.2/1.3	MA.2.GR.1.1

Terms from the K-12 Glossary

- Triangle
- Rectangle
- Square
- Hexagon

Purpose and Instructional Strategies

The purpose of this benchmark is to allow students to use their understanding of the various attributes to sketch a two-dimensional figure. In Kindergarten, students identified, compared and found real world two-dimensional figures of circles, triangles and rectangles regardless of their size or orientation; however, they did not formally sketch the figures. *(MTR.5.1)*

- Instruction includes guiding students to use defining attributes such as number of sides, number of vertices and side lengths to draw two-dimensional figures. Students are not expected to use a ruler or straight edge to draw a more precise figure until Grade 2. *(MTR.5.1)*
- Instruction includes the use of graph paper, grid paper or dot paper to assist students with drawing figures.
- Instruction includes the use of both formal and informal language.

Common Misconceptions or Errors

- Students may get confused when asked to draw a two-dimensional figure that has four sides and four vertices. With only those attributes given, students could draw a square or a rectangle as either is acceptable given those attributes.

Strategies to Support Tiered Instruction

- Teacher provides opportunities to build shapes on a geoboard as attributes are called out. Once successful, students draw the representation in the math journal or on geoboard paper.

- Teacher provides pattern blocks and asks students to find the shape with specific attributes (such as 3 sides and 3 vertices). The students choose from the group of pattern blocks the shape that matches the attributes and trace the correct shape in the math journal.

Questions to ask students:

- **Draw a shape using the given attributes.**
  - Sample answer that demonstrates understanding: *The student should be able to draw a shape from the given defining attributes. For example, if they were asked to draw a shape that has 4 equal sides and 4 angles, the student should be able to use these clues to draw a square.*

Instructional Tasks

Instructional Task 1 (MTR.7.1)

Place the pictures of triangles, rectangles, squares and hexagons from below around your classroom to ensure students have additional items to choose from, students may recognize other objects in the classroom as well. Some photos contain multiple figures that students could use for their sketches.

Part A. Look around your classroom for items that have the same attribute as listed. Sketch the items and label what you found.

Part B. Compare with a partner and explain how you know your items have those attributes. Discuss what you notice about the sketches for items that have three vertices and the sketches that have three sides

Attribute	Item	Sketch	Figure
Has three vertices			
Has three sides			
Has six vertices			
Has six sides			
Has four sides that are the equal length			
Has a total of four sides, opposite sides are the same length			





Instructional Items

Instructional Item 1

Draw a figure with six sides and six vertices. What figure did you draw?

Instructional Item 2

Draw a triangle, how do you know it is a triangle?

Additional Resources:

CPALMS

Lessons

Recognize and Draw Shapes

Sketch 2D Figures (CPALMS)

Simple 2D Shapes (YouTube)

Activities and Resources

Draw 2D Shapes (Near Pod)

I Want You to Draw… Game (Blog Post)

Shapes, Colors, and Numbers Dice Game (Blog Post)

Shape Scarecrow Drawing Game (Blog Post)

Tape Shape Game (Blog Post)

Resources/Tasks to Support Your Child at Home:

Draw Shapes (Mobile/iPad Game)

Silly Shape Dice Drawing Game (Blog Post)

Draw the Shape Game: On index cards or a sheet of paper, write down a shape and its attributes. Read them aloud to your child and have them try to guess the shape you're describing by drawing it on a sperate sheet of paper. You can also do the reverse by saying a shape name and having your child draw the shape and listing the defining attributes that are associated with that shape.

Chalk Shape Jumping Game (Blog Post) – Have your child help you draw the shapes.