

Next Steps and Instructional Moves

The intended purpose of this document is to provide teachers with a tool to determine student understanding and suggest instructional moves that may help guide a student forward in their learning of a particular concept or standard. This guide is not an exhaustive list of strategies.

Second Grade: Cluster 9 Reasoning with Shapes

This list includes standards addressed in this cluster, but not necessarily mastered, since all standards are benchmarks for the end of the year. Note recommendations in the [Important Considerations section in Cluster 9 of the Instructional Frameworks](#) for more information.

NC.2.G.1 Recognize and draw triangles, quadrilaterals, pentagons, and hexagons, having specified attributes; recognize and describe attributes of rectangular prisms and cubes.

NC.2.G.3 Partition circles and rectangles into two, three, or four equal shares.

- Describe the shares using the words halves, thirds, half of, a third of, fourths, fourth of, quarter of.
- Describe the whole as two halves, three thirds, four fourths.
- Explain that equal shares of identical wholes need not have the same shape.

Not Yet

Students that are consistently scoring “Not Yet” could have a variety of errors. These errors may include not yet being able to recognize two-dimensional shapes or not yet being able to partition shapes into two equal parts.

Next Steps:

For students who are not yet able to recognize or draw two-dimensional shapes (2.G.1):

- Provide students with geoboards or materials to create various two-dimensional shapes and look at their similarities and differences. Begin with circles, squares, triangles, and rectangles.
- Have conversations with students about shapes and how they are different from other shapes. For example, consider similarities and differences between triangles, quadrilaterals, pentagons, and hexagons.

For students who are not yet able to consistently partition shapes into two or four equal shares (2.G.3):

- Pose tasks to students that allow them to create a square, rectangle, or circle then partition it by folding or coloring it. By partitioning shapes themselves, students will develop a deeper understanding of fractions and equal shares compared to looking at pre-partitioned or pre-marked regions.
- Work with students on creating two equal shares, “halves”, before working on creating four equal shares, “fourths”, which can be created by partitioning each half into two equal shares. Do not address thirds until students have had ample opportunities working with halves and fourths.

Progressing

Students that are consistently scoring “Progressing” may have a foundation in recognizing shapes or partitioning into halves and fourths. However, there are occasional errors with describing shapes that they see or draw, and errors partitioning shapes into

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thirds, and/or explaining that fractional parts do not necessarily need to have the same shape.

Next Steps:

For students who are progressing to be able to recognize or draw two-dimensional shapes (2.G.1):

- Provide students with geoboards or materials to create various two-dimensional shapes and look at their similarities and differences. Begin with circles, squares, triangles, and rectangles.
- Have conversations with students about shapes and how they are different from other shapes. For example, consider similarities and differences between triangles, quadrilaterals, pentagons, and hexagons.

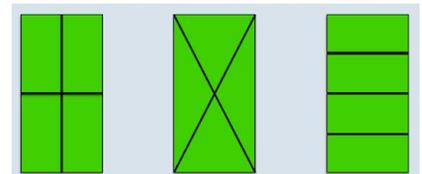
For students who are progressing to be able to partition a shape into three equal shares (2.G.3):

- Do not address thirds until students have had ample opportunities working with halves and fourths. Thirds are easiest modeled in rectangles or squares, not circles. Do not write fractions with a numerator and denominator, just refer and use the words halves, thirds, and fourths.
- Pose tasks to students that allow them to create a square, rectangle, or circle then partition it by folding or coloring it. By partitioning shapes themselves, students will develop a deeper understanding of fractions and equal shares compared to looking at pre-partitioned or pre-marked regions.
- Provide students with squares or rectangles that are on graph paper where the number of boxes is divisible by 3 (e.g., 6 or 9) so that students can partition and check to ensure that the regions are equal shares.

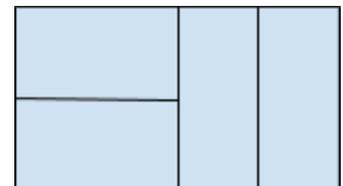


For students who are progressing to be able to explain that equal shares do not have the same shape (2.G.3):

- Give students two paper rectangles that are the same shape and have them fold each rectangle differently (e.g., horizontal, vertical, or diagonal). Look at the two different rectangles and the two different regions in each rectangle. Discuss with students the idea that since the rectangles (the wholes) are identical that when you make two equal shares they each have a value of one-half.



- Provide students with a square or rectangle. Have them partition the shape into two equal shares, “halves” with a vertical line. Then have students partition each half in a different way (e.g., horizontal, vertical, or diagonal).



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Meets Expectation	Students that are consistently scoring “Meets Expectation” in this cluster are able to meet each standard consistently with evidence that they can solve tasks and explain their reasoning.
	<u>Next Steps:</u> For students who have mastered the geometry concepts in this cluster (2.G.1, 2.G.3): <ul style="list-style-type: none">• Consider posing a project-based learning (PBL) activity, project, or performance task that requires students to solve real-world problems related to designing a house, playground, or a community using shapes (2.G.1). For 2.G.3, students could create various flags, murals, or designs in which each picture was divided into various fractional parts (e.g., halves, thirds, or fourths).