

Unit Name: Partitioning Shapes

Common Core State Standards:

2.G.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.

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, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

Essential Vocabulary:

- partition
- equal size
- equal shares
- half
- halves
- thirds
- half of
- a third of
- whole
- two halves
- three thirds
- four fourths
- rows
- columns

Unit Overview:

Second graders partition a rectangle into squares (or square-like regions) and then determine the total number of squares. This work connects to the standard 2.OA.4 where students are arranging objects in an array of rows and columns. Standard 2.G.2 is a precursor to learning about the area of a rectangle and using arrays for multiplication.

Second Grade students partition circles and rectangles into 2, 3 or 4 equal shares (regions). Students should be given ample experiences to explore this concept with paper strips and pictorial representations. Students should also work with the vocabulary terms halves, thirds, half of, third of, and fourth (or quarter) of. While students are working on this standard, they should make the connection that a “whole” is composed of two halves, three thirds, or four fourths. This unit also addresses the idea that equal shares of identical wholes may not have the same shape.

Strategies/Skills:

It is important for students to understand that fractional parts may not be symmetrical. The only criterion for equivalent fractions is that the area is equal. It is important for students to see circles and rectangles partitioned in multiple ways so they learn to recognize that equal shares can be different shapes within the same whole.

Additional Resources:

If you have limited/no internet access, please contact your child’s teacher for hard copies of the resources listed in this document.

- NCDPI Unpacking Document: [2nd Grade Unpacking Document](#)
- Please visit the Kahn Academy website at www.khanacademy.org for additional videos and activities. Look under the *Early Math* tab.
- Please visit the Learn Zillion website at www.learnzillion.com to find 2nd Grade math lessons and videos that align with Common Core Standards.