

Core Content

Cluster Title: Reason with shapes and their attributes.

Standard 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.

MASTERY Patterns of Reasoning:

Conceptual:

Students will understand the meaning of partition.

Students will understand that circles and rectangles can be divided into two, three, and four equal shares.

Students will recognize halves, thirds, and fourths of a shape.

Students will understand that two halves equal one whole, three thirds equal one whole, and four fourths equal one whole.

Students will recognize that equal shares of identical wholes do not necessarily have the same shape.

Procedural:

Students can identify two, three, and four equal shares of a whole.

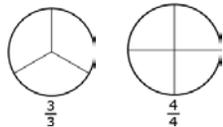
Students can identify equal shares by using the vocabulary *halves*, *half of*, *thirds*, *third of*, *fourths*, and *fourth of*.

Students can identify that equal shares within identical circles/rectangles may not have the same shape.

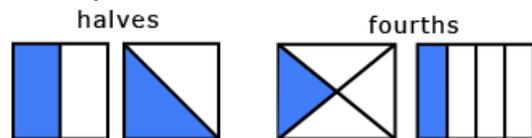
Students can describe a circle/rectangle as having two halves, three thirds, or four fourths.

Representational:

Draw a circle/rectangle showing two, three, or four equal shares.



Partition two identical circles/rectangles in different ways to show that equal shares do not need to have the same shape.

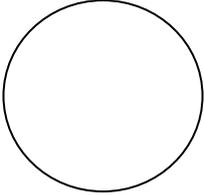


Supports for Teachers

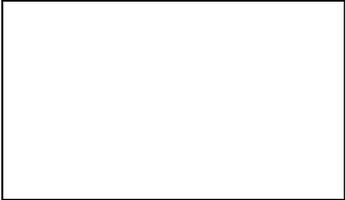
Critical Background Knowledge	
<p>Conceptual: Students will recognize halves and fourths. Students will understand equal shares. Students will understand that a shape can be divided into two and four equal shares. Students will understand that decomposing into more equal shares creates smaller shares. Students will understand that fourths and quarters have the same meaning. (This comes from first grade core.)</p> <p>Procedural: Students can identify a shape as being divided into halves and fourths/quarters. Students can describe a shape as being divided into halves and fourths/quarters. Students can describe the whole as two (or four) of the shares.</p> <p>Representational: Students can draw circle/rectangles show two or four equal shares. Students can partition circle/rectangles into halves or fourths/quarters.</p>	
Academic Vocabulary and Notation	
<p>partition, circle, rectangle, halves, thirds, fourths, equal shares</p>	
Instructional Strategies Used	Resources Used
<p>Give students three circles or rectangles. Have them partition the shapes into halves, thirds, and fourths. Make sure the students partition the shapes in different ways to show that equal shares do not need to have the same shape.</p> <p>Use geoboards to create rectangles and divide them into halves, thirds, and fourths.</p>	<p>http://www.k-5mathteachingresources.com/geometry-activities.html</p> <p>http://www.ixl.com/math/grade-2/halves-thirds-and-fourths</p> <p>www.beaconlearningcenter.com/WebLessons/IWantMyHalf/default.htm</p> <p>http://www.uen.org/Lessonplan/preview.cgi?LPid=18835</p> <p>http://www.uen.org/Lessonplan/preview.cgi?LPid=10811</p>

Assessment Tasks Used

Skill-Based Task:
Partition the circle into fourths:



Partition the rectangle into thirds:



Problem Task:
Alex has a candy bar he wants to share with his three friends. He divides the candy bar into equal shares. Show two different ways Alex can partition the candy bar. How many equal pieces will Alex need to share with his friends?

