

Grade:	2	Geometry	3-4 Weeks
Unit:	4		
Progression			
1 <sup>st</sup> Grade	Students developed an understanding of attributes (color & size), compose basic plane shapes and solid figures, and partition circles and rectangles into halves.		
2 <sup>nd</sup> Grade	Students will define shapes using attributes; identify triangles, quadrilaterals, pentagons, hexagons, and cubes. They will divide a rectangle into rows and columns of same-size squares and partition circles and rectangles into two, three, or four equal shares. They will recognize that equal-size portions of a figure do not have to have the same shape.		
3 <sup>rd</sup> Grade	<p>Students will understand that</p> <ul style="list-style-type: none"> <li>-shapes in different categories may share attributes. Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.</li> <li>-partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.</li> </ul>		

## STUDENT LEARNING GOALS

### Mathematics Standards (*Appendices A & B*)

*Reason with shapes and their attributes.*

**CCSS.MATH.CONTENT.2.G.A.1**

Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.<sup>1</sup> Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.

**CCSS.MATH.CONTENT.2.G.A.2**

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

**CCSS.MATH.CONTENT.2.G.A.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.

<b>Interdisciplinary Standards</b>		<b>Key Vocabulary</b>	
<b>Technology Integration</b> <i>(Appendix C)</i>	<b>21<sup>st</sup> Century Skills</b> <i>(Appendix D)</i>	<b>Shapes</b>	<b>Data</b>
IS1. Information Strategies IS2. Information Use	TCS1. Use of Information TCS5. Problem Solving	Circle Cone Cube Cylinder Hexagon Pentagon Plane figure Polygon Quadrilateral Rectangle Solid Figure Square Trapezoid Triangle  <b>Descriptors</b> Angle Attribute Edge Face Irregular Regular Vertex	Column Data set Picture graph Row Thirds  <b>Other</b> Fourths Fraction Halves Partition Scale Thirds Whole

<p><b>Enduring Understandings</b></p> <ul style="list-style-type: none"> <li>• I can identify and draw shapes using attributes.</li> <li>• I can identify triangles, quadrilaterals, pentagons, hexagons, and cubes.</li> <li>• I can draw lines to divide a rectangle into rows and columns of the same-size squares.</li> <li>• I can draw lines to divide circles and rectangles into equal shares, then use words to describe like halves, thirds, half of, a third of.</li> <li>• I can describe wholes using words like two halves or four fourths.</li> <li>• I can understand that equal parts of a whole do not need to have the same shape.</li> </ul>	<p><b>Essential Questions</b></p> <ul style="list-style-type: none"> <li>• What attributes should I think about when I want to identify or draw shapes?</li> <li>• What attributes describe triangles, quadrilaterals, pentagons, hexagons, and cubes?</li> <li>• How do I divide a rectangle into same-sized squares?</li> <li>• How do I divide circles and rectangles into equal parts?</li> <li>• How can I describe a portion of a whole?</li> <li>• Can I show equal parts of a whole in more than one shape?</li> </ul>
<b>Assessment Plan</b>	
<p><b>Summative Assessment(s)/Performance Based Assessments including 21<sup>st</sup> Century Learning</b></p> <p>RCC Interim Assessment &amp; Performance Task, Student</p>	<p><b>Formative and Diagnostic Assessment(s)</b></p> <p>STAR Math Assessment (Fall) RCC Embedded Tasks and Assessments</p>
<b>Learning Plan Components</b>	
Text	<p><b>Ready Common Core Mathematics Instruction 2</b>, 2014, Curriculum Associates, ISBN: 978-0-7609-8637-0 (RCC)</p>
Print	<p><b>Ready Common Core Mathematics Teacher Resource Book 2</b>, 2014, Curriculum Associates, ISBN: 978-0-7609-8644-8</p>

Electronic

**Teacher Resources:**

[www.teacher-toolbox.com](http://www.teacher-toolbox.com) \*Anything from toolbox is available online and printable; such as, the family letter (See Practice & Problem Solving).  
Georgia Common Core Math Tasks (GA)  
North Carolina Department of Public Instruction (NC)  
Common Core Worksheets; <http://www.commoncoresheets.com/> (CCS)  
\*\*This page provides student friendly measurement activities aligned with the CCSS. You can print them for use in your classroom.  
<http://www.k-5mathteachingresources.com/2nd-grade-measurement-and-data.html>  
[www.stratfordmath.wikispaces.com](http://www.stratfordmath.wikispaces.com)

**Student Resources:**

[www.xtramath.org](http://www.xtramath.org)

**Teacher Resources:**

Teachers may want to spend some time watching this video to assist in teaching the necessary vocabulary.  
<http://gadoe.georgiastandards.org/mathframework.aspx?PageReq=MathName>

**Discovery Education:**

1. Discovering Math: Beginner: Geometry Segment "Simple Shapes"
2. The Number Crew Learns About Pentagons and Hexagons
3. Quadrilaterals
4. The Number Crew: Super Models
5. Beginning Math Vocabulary – Segment "Pies"

These websites have additional tasks:

- Mr. Zed's Cake is a geoboard task:  
<http://www.k-5mathteachingresources.com/support-files/mr-zeds-cakes.pdf>

- Additional geoboard tasks:  
<http://www.k-5mathteachingresources.com/support-files/geoboard-fourths-2g3.pdf>

Students Resources:

Geoboards

[http://nlvm.usu.edu/en/nav/frames\\_asid\\_277\\_g\\_1\\_t\\_3.html?open=activities&from=topic\\_t\\_3.html](http://nlvm.usu.edu/en/nav/frames_asid_277_g_1_t_3.html?open=activities&from=topic_t_3.html)

**Games:**

Identifying Polygons, Classifying Polygons, & Identifying Solid Shapes

<https://www.matific.com/us/en-us/grades/2G>

Halves, thirds & fourths

<http://www.ixl.com/math/grade-2/halves-thirds-and-fourths>

ID Fraction

<http://www.ixl.com/math/grade-2/identify-the-fraction>

Show the Fraction

<http://www.sheppardsoftware.com/mathgames/fractions/AnimalRescueFractionsNumberLineGame.htm>

Equal parts

[http://www.sheppardsoftware.com/mathgames/earlymath/fractions\\_shoot.htm](http://www.sheppardsoftware.com/mathgames/earlymath/fractions_shoot.htm)

Attributes

<http://www.ixl.com/math/grade-2/count-sides-vertices-edges-and-faces>

Shapes

<http://www.ixl.com/math/grade-2/identify-planar-and-solid-shapes>

Shape shoot

[http://www.sheppardsoftware.com/mathgames/earlymath/shapes\\_shoot.htm](http://www.sheppardsoftware.com/mathgames/earlymath/shapes_shoot.htm)

Equal Parts

<b>Week 1</b>	Students will: <ul style="list-style-type: none"> <li>• Identify shapes based upon number of sides and angles they have for triangles, quadrilaterals, pentagons, and hexagons.</li> <li>• Differentiate between shapes using attributes for triangles, quadrilaterals, pentagons, and hexagons.</li> <li>• Understand one shape can be made from a combination of other shapes.</li> <li>• Make a shape based on specific attributes.</li> </ul>		
<b>Lessons</b>	<b>Tasks / Activities</b>	<b>Worksheets</b>	<b>Technology</b>

<p><u>RCC Lesson 26:</u> <b>Recognize and Draw Shapes</b></p> <p><i>Teacher Edition pp. 274-284</i></p> <p><i>Student Pages pp. 223-233</i></p> <p><i>Differentiation Pages: PP. 284</i></p>	<p>RCC Toolbox-Center Activities <a href="http://www.teacher-toolbox.com">www.teacher-toolbox.com</a></p>	<p>GA “The Shape of Things”</p> <p>GA “Greedy Shapes”</p> <p>NC “Polygon Riddles and Fun”</p> <p>RCC Introduction pp. 224-225</p> <p>RCC Modeled Instruction p. 226-228</p> <p>RCC Guided Instruction p. 229</p> <p>RCC Guided Practice p. 230-231</p> <p>RCC Practice &amp; Problem Solving <a href="http://www.teacher-toolbox.com">www.teacher-toolbox.com</a></p> <p>SF 7-1 “Flat Surfaces, Vertices, &amp; Edges”</p>	<p><b>Discovery Education:</b></p> <ol style="list-style-type: none"> <li>1. <u>Discovering Math: Beginner: Geometry</u> Segment “Simple Shapes”</li> <li>2. <u>The Number Crew Learns About Pentagons and Hexagons</u></li> <li>3. <u>Quadrilaterals</u></li> <li>4. <u>The Number Crew: Super Models</u></li> </ol> <p>These websites have additional tasks:</p> <ul style="list-style-type: none"> <li>• Mr. Zed’s Cake is a geoboard task: <a href="http://www.k-5mathteachingresources.com/support-files/mr-zeds-cakes.pdf">http://www.k-5mathteachingresources.com/support-files/mr-zeds-cakes.pdf</a></li> <li>• Additional geoboard tasks: <a href="http://www.k-5mathteachingresources.com/support-files/geoboard-fourths-2q3.pdf">http://www.k-5mathteachingresources.com/support-files/geoboard-fourths-2q3.pdf</a></li> </ul> <p>Students Resources: Games for classifying shapes, composing shapes, &amp; geometric puzzles. Click on geometry, then choose area of interest. You can make an account for free; but you don’t have to. <a href="https://www.matific.com/us/en-us/grades/2G">https://www.matific.com/us/en-us/grades/2G</a></p> <p>Geoboards <a href="http://nlvm.usu.edu/en/nav/frames_asid_277_g_1_t_3.html?open=activities&amp;from=topic_t_3.html">http://nlvm.usu.edu/en/nav/frames_asid_277_g_1_t_3.html?open=activities&amp;from=topic_t_3.html</a></p> <p>Attributes <a href="http://www.ixl.com/math/grade-2/count-sides-vertices-edges-and-faces">http://www.ixl.com/math/grade-2/count-sides-vertices-edges-and-faces</a></p> <p>Shapes <a href="http://www.ixl.com/math/grade-2/identify-planar-and-solid-shapes">http://www.ixl.com/math/grade-2/identify-planar-and-solid-shapes</a></p> <p>Shape shoot <a href="http://www.sheppardsoftware.com/mathgames/earlymath/shapes_shoot.htm">http://www.sheppardsoftware.com/mathgames/earlymath/shapes_shoot.htm</a></p>
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<b>Week 2</b>	Students will: <ul style="list-style-type: none"> <li>• Divide a rectangle into rows and columns of the same-sized squares to make an array.</li> <li>• Determine the number of squares in an array.</li> </ul>		
<b>Lessons</b>	<b>Tasks / Activities</b>	<b>Worksheets</b>	<b>Technology</b>
<p><u>RCC Lesson 27:</u> <b>Tiling in Rectangles (Arrays)</b></p> <p><i>Teacher Edition pp. 285-293</i></p> <p><i>Student Pages pp. 234-239</i></p> <p>Differentiation p. 293</p>	<p>RCC Toolbox-Center Activities</p>	<p>SF “Equal Parts” 7-9</p> <p>GA “Sharing Equally”</p> <p>GA “Making Rectangles”</p> <p>NC “Rectangles Riddles”</p> <p>RCC Practice &amp; Problem Solving <a href="http://www.teacher-toolbox.com">www.teacher-toolbox.com</a></p> <p>RCC Introduction pp. 234-235</p> <p>RCC Guided Instruction pp. 236-238</p>	<p><b>Games:</b> Equal Parts <a href="http://www.ixl.com/math/grade-2/equal-parts">http://www.ixl.com/math/grade-2/equal-parts</a></p> <p>Equal parts <a href="http://www.sheppardsoftware.com/mathgames/earlymath/fractions_shoot.htm">http://www.sheppardsoftware.com/mathgames/earlymath/fractions_shoot.htm</a></p> <p>Geometric puzzles <a href="https://www.matific.com/us/en-us/grades/2G">https://www.matific.com/us/en-us/grades/2G</a></p>
<b>Week 3</b>	Students will: <ul style="list-style-type: none"> <li>• Divide circles and rectangles into equal parts of two, three, and four.</li> <li>• Identify and name halves, thirds, and fourths.</li> <li>• Understand and identify a whole as two halves, three thirds, and four fourths.</li> </ul>		

<p><b>Lessons</b>  <u>RCC Lesson 28:</u>  <b>Understanding Halves, Thirds and Fourths in Shapes</b></p> <p><i>Teacher Edition pp. 188-196</i></p> <p><i>Student Pages pp. 154-159</i></p> <p>Differentiation p. 196</p>	<p><b>Tasks / Activities</b>  RCC Toolbox-Center Activities</p>	<p><b>Worksheets</b>  SF “Unit Fractions” 7-10</p> <p>GA “My Country’s Flag”</p> <p>GA “Ribbon Fractions”</p> <p>NC “Fraction Flowers”</p> <p>GA “Making a Cake”</p> <p>RCC Practice &amp; Problem Solving  <a href="http://www.teacher-toolbox.com">www.teacher-toolbox.com</a></p> <p>RCC Introduction pp. 240-241</p> <p>RCC Guided Instruction pp. 242-243</p> <p>RCC Guided Practice p. 244</p>	<p><b>Technology</b>  Discovery Education:  <u>Beginning Math Vocabulary – Segment “Pies”</u></p> <p><b>Games:</b>  Halves, thirds &amp; fourths  <a href="http://www.ixl.com/math/grade-2/halves-thirds-and-fourths">http://www.ixl.com/math/grade-2/halves-thirds-and-fourths</a>  ID Fraction  <a href="http://www.ixl.com/math/grade-2/identify-the-fraction">http://www.ixl.com/math/grade-2/identify-the-fraction</a>  Show the Fraction  <a href="http://www.sheppardsoftware.com/mathgames/fractions/AnimalRescueFractionsNumberLineGame.htm">http://www.sheppardsoftware.com/mathgames/fractions/AnimalRescueFractionsNumberLineGame.htm</a>  Equal parts  <a href="http://www.sheppardsoftware.com/mathgames/earlymath/fractions_shoot.htm">http://www.sheppardsoftware.com/mathgames/earlymath/fractions_shoot.htm</a></p>
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