

# LEARNING PLAN

Mary Lou Chollar, Christina Ford, Renee Severson

<p><b>Exploratory Activities</b></p> <p><i>Not enough Room!</i> by Joanne Rocklin  <i>Three Pigs, One Wolf, and Seven Magic Shapes</i> by Grace Maccarone  <i>Sir Cumference and the First Round Table</i> by Cindy Neuschwander</p>	<p><b>CONCEPT</b></p> <p>Geometry and Spatial Reasoning – 3<sup>rd</sup> Grade</p>
<p><b>Concept Development Activities</b></p> <p><u>Non RUSMP Activities</u></p> <p>Stained Glass Windows- Symmetry art project using shapes (p. 13-14) <i>Math Art Projects and Activities</i>          Geometry Book – Students write definitions and find real world examples of angles, shapes, and solids.</p> <p><i>Meera and the Glass Puzzles</i> from Poof! – Activity uses pattern blocks to solve the puzzles.</p> <p>Patchwork Quilt Spin – Game works with identifying and describing geometric shapes and recognizing lines of symmetry. (p. 57-61) <i>25 Super-Fun Math Spinner Games</i></p> <p>Symmetrical Mask – Students make mask with symmetrical patterns using pattern blocks. (R. Severson)</p> <p>Flat Shape Find and Find the Solid Shapes (p. 20 -21) <i>Multilevel Math Fun</i></p> <p>Geometric Shapes Quilt – Students design their own quilt blocks that incorporate geometric shapes they are studying in class. ( p. 47, 56-64) <i>Quick Quilts Across the Curriculum</i></p> <p><u>RUSMP Activities</u></p> <p>Mirror Twins – Symmetry Activity using Miras          Symmetry – Name Designs          Properties of Polygons          Tangrams Shape Sheet – Square, Triangle, Rectangle, and Parallelogram – Create shapes using 1-7 tangram pieces          Shape Bingo          Geo Board Shapes and their properties – Build various shapes on the geo board and discuss their properties          Squeeze Play          Building the Solids – Cube, Rectangular Prism, Pyramid, Triangular Pyramid, Cone, and Cylinder          Faces, Vertices, and Edges          Geometry Sculptures – Students build solids with toothpicks and marshmallows.</p> <p><u>Learning Centers</u></p> <p>Patchwork Quilt Spin - Game works with identifying and describing geometric shapes and recognizing lines of symmetry. (p. 57-61) <i>25 Super-Fun Math Spinner Games</i></p> <p>Copycat Coordinates – Coordinate geometry helps students reproduce and enlarge their favorite artwork! (p. 22-24) <i>Math Art Projects and Activities</i></p>	<p><b>Materials and Resources</b></p> <p>Books:</p> <p><i>Not enough Room!</i> by Joanne Rocklin. ISBN #0-590-39962-4  <i>Three Pigs, One Wolf, and Seven Magic Shapes</i> by Grace Maccarone. ISBN#0-590-30857-2  <i>Sir Cumference and the First Round Table</i> by Cindy Neuschwander. ISBN # 0-590-00215-5  <i>Quick Quilts Across the Curriculum</i> by Kathy Pike, Jean Mumper, and Alice Fiske. ISBN# 0-439-23468-9  <i>Multilevel Math Fun</i> by Dr. Carl Seltzer. ISBN #1-57471-900-9  <i>Tangram Games &amp; Puzzles</i> by Bill McConnell. ISBN # None Given. Published by Teaching Resource Center.  <i>Math Art Projects and Activities</i> by Carolyn Ford Brunetto. ISBN #0-590-96371-6  <i>Math Advantage</i> 3<sup>rd</sup> Grade Level Texas Teacher’s Edition Volume Two. ISBN# 0-15-310706-5  <i>Meera and the Glass Puzzles</i> from Poof! by Betsy Franco</p> <p>Construction Paper; Colored Tissue Paper; Chalk; Eraser; Overhead Markers; Transparencies; Scissors; Glue; Tape; Geometry Book Activity; Old Magazines or Catalogs; Geo Boards; Geo Bands; Notebook paper; Bulletin Board Paper; Cuisenaire Rods; Overhead Cuisenaire Rods; Squeeze Play; Game Boards; Markers; Crayons Colored Pencils; Rulers; Dice; Two Color Counters; Overhead Two Color Counters; Bingo Cards; Bingo Calling Cards; Pencils; Copies of the solids jackets for Cube, Rectangular Prism, Pyramid, Triangular Pyramid, Cone, and Cylinder; Faces, Vertices, and Edges worksheet; Pattern Blocks; <u>Meera</u> Pattern Block Story Mats #3 and 4; <u>Meera</u> Pattern Block Activity Sheet</p>

<p>Hangman Geometry Tessellation – Broaden the student’s geometric vocabulary through hangman. (M. Chollar)</p> <p>Tessellation Center – Student build tessellations using patterns blocks. (RUSMP 2004)</p> <p>Tangram Puzzles – Students solve puzzles using tangrams. (p. 7,8,9,12,13,14,15,17,19,20,23,28,29,32) <u>Tangram Games &amp; Puzzles</u></p>	<p>page 52; Overhead projector; Overhead pattern blocks; Overheads of Story Mats #3 and 4; Patchwork Quilt Spinner; Patchwork Quilt Game Board; Patchwork Quilt Cut Outs; Colored Counters; Mira; Toothpicks; Marshmallows; Tangram pieces; Quilt Block Pattern</p> <p><b>Web Sites:</b>  <a href="http://www.brainpop.com">www.brainpop.com</a>  <a href="http://users2.ev1.net/~charliehb/cool_math_links.htm">http://users2.ev1.net/~charliehb/cool_math_links.htm</a>  <a href="http://www.superkids.com">www.superkids.com</a></p>
<p><b>Basic Facts and Standard Algorithms Formalized</b></p> <ul style="list-style-type: none"> <li>- Name, describe, and compare geometric shapes and solids using formal geometric vocabulary.</li> <li>- Identify right angles.</li> <li>- Identify parallel and perpendicular lines.</li> <li>- Describe shapes using vertices, edges, and faces.</li> <li>- Recognize congruence and symmetry.</li> <li>- Connect transformations to congruence and symmetry.</li> <li>- Identify congruent shapes.</li> <li>- Create shapes with lines of symmetry and identify lines of symmetry.</li> </ul>	<p><b>Originality and Creativity</b> <i>Student Products</i></p> <p>Written</p> <p><u>Meera and the Glass Puzzle</u> – Write a story about how you would trick the monkeys.</p> <p><u>Three Pigs, One Wolf, and Seven Magic Shapes</u> – Create a new ending to the story and draw your own pictures using the magic shapes.</p>
<p>Assessment</p> <p>My Geometry Book – The teacher has the students number the pages of the book and staple them down the side so that the pages do not fall out. Students write down the definitions in class as they are discussed. The students draw examples of each line, shape, and solid using catalogs, newspapers, and other similar items to cut out and glue into their Geometry Book. (C. Ford)</p> <p>Geometry Test – Test made by C. Ford</p> <p>Shape Quilt – Students draw a shape and list the properties around the border of the quilt block pattern (p. 56-64) <u>Quick Quilts Across the Curriculum</u></p> <p>Observations</p>	<p>Journal Entry – Tell what you discovered about polygons by using the geo board. Which were the easiest to make? Which were the most difficult to make?</p> <p>Verbal</p> <p>RUSMP Tangram story.</p> <p>What’s My Shape – Describe a shape or solid verbally and have others guess it.</p> <p>Kinesthetic</p> <p>Students build shapes with their bodies.</p> <p>Act out shapes.</p> <p>Use clay to make models of shapes, then join clay shapes to make designs.</p>
<p>Related TEKS</p> <p>3<sup>rd</sup> grade – 8 and 9 A, B, C</p>	<p>Visual</p> <p>Stained Glass Windows</p> <p>My Geometry Book</p>

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