

## LEARNING PLAN

Alma Sifuentes

<p><u>Exploratory Activities</u></p> <ul style="list-style-type: none"> <li>◆Read aloud to the class: <u>The Greedy Triangle</u> by Marilyn Burns. Teacher shows the shapes mentioned on the book using overhead pattern block shapes. Have the students help. Then, students use geoboards and rubber bands to make all the shapes that the Greedy Triangle went through. After that, students choose their favorite shape and make a pictographic graph.</li> <li>◆Read aloud: <u>Quilt</u> by Ann Jonas. Create a quilt using pattern blocks (plastic and paper).</li> </ul>	<p><u>CONCEPT</u></p> <p>Geometry: “Shapes”</p> <ul style="list-style-type: none"> <li>◆ Attributes</li> <li>◆ Relationships</li> <li>◆ Problem Solving</li> </ul> <p style="text-align: right;">(For second grade)</p>
<p><u>Concept Development Activities</u></p> <ul style="list-style-type: none"> <li>◆<u>Attributes</u>: Drawing with Dots. Students make, record, and name geometric shapes (names, sides). Use geoboards and rubber bands first, then worksheets and pattern blocks (plastic). <u>Center</u>: Two-dimensional figures. Vocabulary: sides, angles, and vertex.</li> <li>◆<u>Guess Who We Are</u>. Cards in Spanish. Identify geometric shapes attributes. Then complete the Venn diagram sheet. <u>Center</u>: Folder centers, cards in English. Work in pairs.</li> <li>◆<u>Attribute Sorts</u>. The structure of attribute blocks is reviewed by using three sorting activities: size, color, and shape. Use pattern blocks. Then, complete worksheets “grouping” and “plane figures”. <u>Center</u>: All sorts of sorts. Work in teams.</li> <li>◆<u>Books</u>: <i>Mama’s Got a Thing About Triangles</i>, Betty Franco and <i>Wake up</i>, Scotterville, Judith Bauer. Divide class in two groups. Each group read one book and find out about all the geometric shapes on the illustrations. Then, ask them to write all the shapes on a poster. Then compare and contrast.</li> <li>◆<u>Relationships</u>: Quilts. Pattern blocks are used to design “quilt blocks”. First using worksheets and pattern blocks. Then on construction paper trace pattern blocks or use pattern blocks stencils to create your own quilt. Cooperative learning.</li> <li>◆Read aloud book: <i>Grandfather Tang’s Story</i>, Ann Tompert. First students cut the 7 tangrams from the paper tangrams sheet. Then explain students that they’ll learn to create their own tangrams following instructions. After, work with tangrams worksheets using the 7 pieces.</li> <li>◆<u>Problem Solving</u>: Work in teams using Roger’s Triangles. Then, use “shape designs” and “robots riddles”.</li> <li>◆ Visual memory exercises with shapes worksheets. Work in pairs.</li> </ul>	<p><u>Materials and Resources</u></p> <p>Books (see list below)</p> <p>Pencils, crayons, scissors, tape</p> <p>Pattern block shapes (plastic)</p> <p>Pattern block shapes (paper)</p> <p>Overhead and overhead pattern blocks, dry erase markers, glue</p> <p>Overhead tangrams, paper tangrams</p> <p>Teacher- made folder games</p> <p>Pattern block stencils/templates</p> <p>Construction paper, poster, glitter</p> <p>Geoboards and rubber bands</p> <p>Attribute links</p> <p><u>Resources</u></p> <p><i>Grandfather Tang’s Story</i>, Ann Tompert</p> <p><i>Mama’s Got a Thing About Triangles</i>, Betty Franco</p> <p><i>The Greedy Triangle</i>, Marilyn Burns.</p> <p><i>Quilt</i>, Ann Jonas.</p> <p><i>Wake up</i>, Scotterville, Judith Bauer.</p> <p><i>Sharon Wells Math Curriculum</i>, 2002-2003. 2<sup>nd</sup> Grade. Math Centers</p> <p><i>Everyday Mathematics</i>, The University of Chicago’s School Mathematics Project. 2<sup>nd</sup> Grade</p> <p><i>Visual Memory Skills</i>, McGraw-Hill</p> <p><i>MATH</i>, McGraw-Hill</p> <p><i>Math Centers</i>, 1-3, Evan Moor</p> <p><i>Center Stage Math</i>, ETA Cuisenaire</p> <p>RUSMP sheet “Making your own tangrams”</p> <p><i>Matemáticas</i>, SEP, México 2002</p>

Basic Facts and Standard Algorithms Formalized

- ◆ Develop readiness for Two-dimensional shapes.
- ◆ Recognize, describe, classify, and compare Two-dimensional shapes.
- ◆ Sharpen and development of spatial perception and spatial abilities.
- ◆ Provide experience with similarities and differences of a particular geometric shape (explore polygons).
- ◆ Explore similarities and differences among various kinds of quadrilaterals.
- ◆ Identify geometric figures in everyday situations.
- ◆ Development of critical and creative thinking skills.
- ◆ Use strategies for solving problem and geometric puzzles.
- ◆ Development of visual memory.

Originality and Creativity

*Student Products*

Written: Use Pattern block stencils/templates Use your imagination and write a story. Use the stencil to illustrate your writing.

Verbal: Make up a story about the geometric shapes you see around your neighborhood in a real life situation. Share orally.

Kinesthetic: Center: Geometric shapes and puzzles. Work in pairs and explain the strategies used to resolve the puzzles.

Visual: Make a graph using only quadrilaterals: rectangle, square, rhombus, trapezoid, and parallelogram. Identify, compare and contrast attributes. Use brilliant colors and glitter. Work in teams.

Assessment

- ◆ Observation assessment during cooperative learning activities.
- ◆ Classify shapes (worksheet 2.6.)
- ◆ Recognize Two-Dimensional shapes (worksheet 3.2.)
- ◆ Informal assessment: Visual memory exercises with shapes (worksheet p.22.)

Related TEKS

TEKS 2.A, 2.B, 2.C

The student uses attributes to identify, compare, and contrast shapes.