



# TEACHER PAGE

## Lesson: Shapes with Rikki

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**New Arizona Math Strand 4 Geometry and Measurement** **Grade 3**  
**Articulated 4M31-01** Build geometric figures with other common shapes.  
**Old Arizona Math Standard 4 Geometry Foundations 1** **Grade 1-3**  
Relate geometric concepts to number and measurement ideas. **PO1** Identify two-dimensional shapes by name and attribute.

### Materials & Bibliography:

Pattern blocks, 2 sticks for each pair of students

URL <http://www.teachingideas.co.uk>

*The Line Up Book* by Marisabina Russo

"Weekly Activities: Play Space, People Space," *Teaching Children Mathematics*, V 5, No. 8, April 1999, p 474

**Learning Objectives:** The student will be able to:

1.Name two-dimensional shapes. 2.Determine the number of sides on two-dimensional shapes 3.Analyze the attributes that constitute two-dimensional shapes.

### Overview:

This lesson points out that every rectangle is made up of 4 right angles and 4 sides. Line segments and parallel sides are introduced, as well as a square being a rectangle. Rikki makes rectangles by matching line segments. Students make rectangles by placing line segments together—there's a game in DIG DEEPER. This lesson also has English Navajo and Spanish narration and scripts. Spanish/English math dictionary: [www.math2.org/math/spanish/eng-spa.htm](http://www.math2.org/math/spanish/eng-spa.htm)

### Classroom Management:

Group the students at 4 desks making rectangles. When the class is lining up, form them into 4 line segments. Students are to determine the number of students that should be in each line to make a rectangle and make one.

### Engaging Students:

Play the game "Play spaces, people spaces." In teams of four, explore the amount of space you need to play. On large paper (markers, string and measuring devices) draw and label the floor space needed to stand, walk one pace, run one pace, sit cross-legged and lie down. Next, lay a sixteen-foot loop of string on the ground to make a circle, square, rectangle and a triangle. Fit the members of a team into each shape. Can more people fit into the shape with more sides?

### Follow-up:

- 1.Line Segments: Students write their first name using rectangles for each letter. They count the number of line segments in all that make up their name and compare with other students.
2. Parallel Lines: Students place sticks in parallel or unparallel lines and partners will judge the accuracy.
3. Students use Unifix™ cubes, blocks, or Cuisenaire blocks™ to make rectangles.

### Assessment:

Students draw or cut out lines from grid paper and correctly place them together to make rectangles demonstrating understanding of two pairs of parallel sides and 4 right angles.

