



TEACHER PAGE

Lesson: Symmetry of the Southwest

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New Arizona Math Strand 4 Geometry and Measurement **Grade 4**
Articulated 4M41-08 Draw a two-dimensional shape that has line symmetry
Old Arizona Math Standard 4 Geometry **Grades 4-8**
4ME3-PO3A Draw or build a shape that A. has symmetry.

Learning objectives: Students will be able to:

- draw or fold lines of symmetry on shapes
- demonstrate understanding of symmetry by making shapes symmetrical

Overview and Content:

This lesson is about simple mirror symmetry. Students will be given many examples of line symmetry before they get to create a prickly example. In SEE, students will discover that lines of symmetry are not always vertical. Another lesson, called Facial Symmetry, gives a terrific example of vertical and horizontal symmetry in the same picture.

Engaging Students:

Prepare many pictures: cut the pictures in two symmetrically and place each half in separate bags. Divide the class in two groups and give each group a bag. Each student must take a picture half and find its mate among the students. If several of the pictures are similar, this can be a challenging activity. You want the students to label this activity to start the lesson.

Follow-up:

- In the DIG DEEPER students will be able to show creativity in finding symmetry of a square.
- In TALK ABOUT IT! student partners will locate symmetry in their own creations. For the most amazing fun, make sure students follow the directions to use the web page.
- Students research Navajo structures, rugs, beadwork, pottery, baskets, land formations and plants for examples of mirror symmetry.

Assessment:

Students must select the correct bird wing pattern and the correct line of symmetry in humans to show the correct line of symmetry, or mirror symmetry.

