



**TEACHER PAGE**  
**Lesson: Facial Symmetry**  
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**New Arizona Math Strand 4 Geometry and Measurement**      **Grades 4, 5, 6**  
**Articulated 4M41-08** Draw a two-dimensional shape that has line symmetry; **4M51-13** Identify the lines of symmetry in a two-dimensional shape; **4M61-09** Draw a two-dimensional shape with a given number of lines of symmetry.

**Old Arizona Math Standard 4 Geometry**      **Grades 4-8**  
**4ME3-PO3B** Draw or build a shape that B. has two or more lines of symmetry.

**Learning Objectives: Students will be able to:**

- identify lines of symmetry in faces
- explain vertical symmetry by example
- explain horizontal symmetry by example
- demonstrate understanding of lines of symmetry in a two-dimensional shape

**Overview and Content:**

Students see facial symmetry on animals. Examples of vertical and horizontal symmetry are given. Then students have opportunity to build examples of faces with a line of symmetry. The SHOW expects detailed work.

**Engaging Students:**

\*Use photographs or drawings, masks, or weird eyeglasses to show asymmetry and symmetry of faces. Students determine how to get vertical symmetry and horizontal symmetry from a picture of a person.

- Students draw the perfectly symmetrical picture of their pet.

**Follow-Up:**

Follow this lesson with an art appreciation lesson of the artists mentioned in the SO WHAT? The DIG DEEPER section takes you to Ukrainian Egg Designs with an exercise in locating 2-line and 3-line symmetry. The instructions say to make facial symmetry of an animal from ideas on the web site. The TALK ABOUT IT! page has a lot of suggestions for activities from the Ukrainian Egg Designs plus adds that students should write down their experiences with facial symmetry, two-line and three-line symmetry and asymmetry in their Math Journals.

**Assessment:**

Students will create their perfectly symmetrical face and they are asked to grade it. They will not get the go on button until the face is symmetrical. Different faces come up each time.

