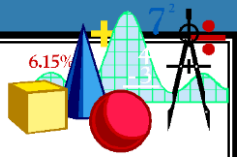
Mathematics, Geometry
Unit VII: Lesson 1

Art: **Facelift**



The left and right sides of a human face are close to being mirror images of each other, but not exactly. Set a small mirror perpendicular to a portrait photo along the line through the person's forehead, nose, and chin. Observe the half portrait and its reflection on each side of the face. Are all three pictures the same, or do they look like relatives of each other? A symmetrical face is said to have bilateral symmetry.

Take a black and white portrait of yourself or another person (Be sure the person directly faces the camera and does not tilt their head.) Make two prints as usual and make another print by flipping the image over. Keep one of the natural prints. Cut the other two prints along the line dividing the person's forehead, nose, and chin exactly in half. Make two composite portraits with these cut photos by mismatching the halves.

Arrange a display of your work with an analysis on symmetry. Include other possibilities for this kind of experimentation. Suggest other practical uses in manufacturing or design. Write the reactions of those who view your portraits and evaluate what type of face, for instance, is the most desirable.