Folded Paper Symmetry

Divide students into pairs. Pass out pieces of **colored construction paper**, a pair of **scissors**, and some **pattern blocks** to each pair.

Students first fold pieces of colored paper in half and then cut out simple shapes at the fold. (Squares, triangles, rectangles, curved shapes, etc.) They unfold the paper and see how one side of each space is a mirror image of the other side. Students will also see how one side of each cut-out shape is a mirror image of the other side.

After they have experimented with these shapes, have students cut some more complicated ones.

? What do they notice when they unfold them?

? Where are the lines of symmetry in the original paper and the cut-out shapes?

Introduce the concept of congruence by having the students cut one of their more complicated shapes in half along the line of symmetry. They should notice that the halves of the shapes are identical.

Now discuss the concept of reflections, or flips. Explain that a reflection moves an object by flipping it over a line. Have students draw a vertical line in their journals. Next have them place a pattern block shape on one side of the line and then flip its congruent shape to the other side of the line. Give students some practice playing with their different cut-out shapes in this way.