Kaleidoscope Lesson Plan

Objective: The students will create a kaleidoscope and investigate lines of symmetry and reflections of the images. Integrating Math and Art. ACOS-#8

Vocabulary: symmetry, image, pre-image, reflection, rotation.

Materials: 8½X11 paper, Markers

Directions:
Preparing Paper
1. Cut paper to form an 8½X8½ square.
2. Fold triangle in half, keeping edges lined up.
3. Fold triangle in half again.
4. Open up the paper and you should have 8 sections.

Creating Kaleidoscope
1. Draw the first letter of your name in block letters beginning near the central angle. The top of the letter must touch the interior leg of the triangle and the bottom of the letter must touch the hypotenuse of the triangle.
2. Draw the second letter of your name, overlapping slightly, or touching the first letter.
3. Draw the rest of the letters staying on the hypotenuse and the same leg. Each letter will increase in size as they get closer to the outer edge (second leg of triangle). This is your pre-image.
4. Trace over all letters with a black fine point marker.
5. Turn over paper and trace over lines onto the back.
6. Fold the paper over to trace the first triangle onto the triangle directly next to it. This will form a mirror image.
7. Continue tracing the two on the back until all triangles on the front are completed.

Adding Color
1. Choose a color for the first letter of the name. Do all the first letters in the same color (all 8).
2. Choose a color for the second letter. Color all 8 the same. Do this for all letters of your name.
3. Art tip: Think about what colors compliment each other. Think about colors that are a good contrast. For example, don't put two dark colors next to each other. Alternate light and dark colors.
4. It is optional to color the background. It looks best if all one color.