

Sunflower Symmetry



Lesson adapted from Art Makes U Smart

Grade Level

2nd Grade

Key Vocabulary

- Symmetry
- Whole, halves, fourths
- Equal parts

Materials

- Ticonderoga® Yellow #2 Pencil, #X13806
- Pacon® Super Bright Tagboard, #P1709
- UCreate® Watercolor Paper, #P4925
- Prang® Oval Watercolors, #X00800 or Watercolor Pencils, #X23650
- Prang® Glue Stick, #X15371
- Creativity Street® Stable Water Pot, #PAC5122
- Scissors

Objective

Students will divide a whole into halves and fourths to create sunflower pedals. Students will also observe how colors interact and experiment with color blending.

Standards

2.G.A.3

Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

VA:Cr1.2.2a

Make art or design with various materials and tools to explore personal interests, questions, and curiosity.

Engagement

1. Review what students already know about primary and secondary colors. Have students point out the locations of these colors on the color wheel.
2. Ask students to share with a partner what they know about mixing colors together. Encourage discussion by asking which two colors would combine to make the secondary colors: green, orange, and purple?
3. Introduce students to the idea of blending colors that are next to each other on the color wheel. Be sure to point out how this is different from mixing new colors. For example, blending red, yellow and orange (warm colors) can make a very pleasing effect that looks like a sunset.
4. Give students a sheet of watercolor paper and watercolors or watercolor pencils to experiment with blending colors in the order of ROYGBIV to find combinations they like.
5. Explain to students they will be using this blending technique with colors of their choice to create a fourth or half of a sunflower.

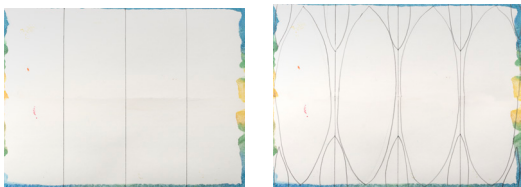
Step 1



Step 2



Step 3



Step 4



Step 5



Step 6



Activity

1. Using the watercolor paper from the experimentation in the engagement section, have students fold the paper half on the long edge. Describe these sections as halves. There are two halves that make up the whole paper. Encourage students to use math vocabulary while describing the equal sections they are dividing their paper into. Fold the paper in half again, then unfold the paper and count how many equal-sized pieces the paper is now divided into by the fold marks (fourths). Explain to students that they will be making one large flower pedal per one-fourth section of paper.
2. Using a new sheet of watercolor paper, students should paint the blended colors they chose from the experimenting step. Allow the paper to dry.
3. Once the watercolor paper is dry, have students fold the paper into fourths (they can use their experimentation paper from step one as a guide). On the unpainted side of paper, have students use a pencil to draw lines over the creases that separate the four equal sections. Next, model how to draw one large pedal in each of the four sections, and how to draw smaller pedals in between.
4. Cut out the pedals and arrange on a piece of tag board that has been cut into a 9-inch x 9-inch square (save the three inch strip for the center of the sunflower). Give students the option to create half of a sunflower or one-fourth of a sunflower on their tag board.
5. Use part of the three-inch strip of tag board that was previously cut off to create the center of the sunflower. If students are creating one-fourth of a sunflower, they will need to make one-fourth of a circle from this strip. If students are creating half a sunflower, they will need to make half a circle from this strip. (Using scraps from a different color than the tag board square can help add variety to the artwork.)
6. Arrange the center of the flower over the large and small pedals on the tag board, then glue all the pieces down.

Assessment

Have students use mathematical terms to describe their sunflower artwork. Students should be able to describe if they've created half a sunflower or one-fourth of a sunflower. Have students work together to create as many whole sunflowers as possible. Discuss how depending on the size of the parts there are different amounts of artwork needed to make one whole sunflower (four one-fourth sunflowers, two half sunflowers, two fourth sunflowers and one half sunflower).