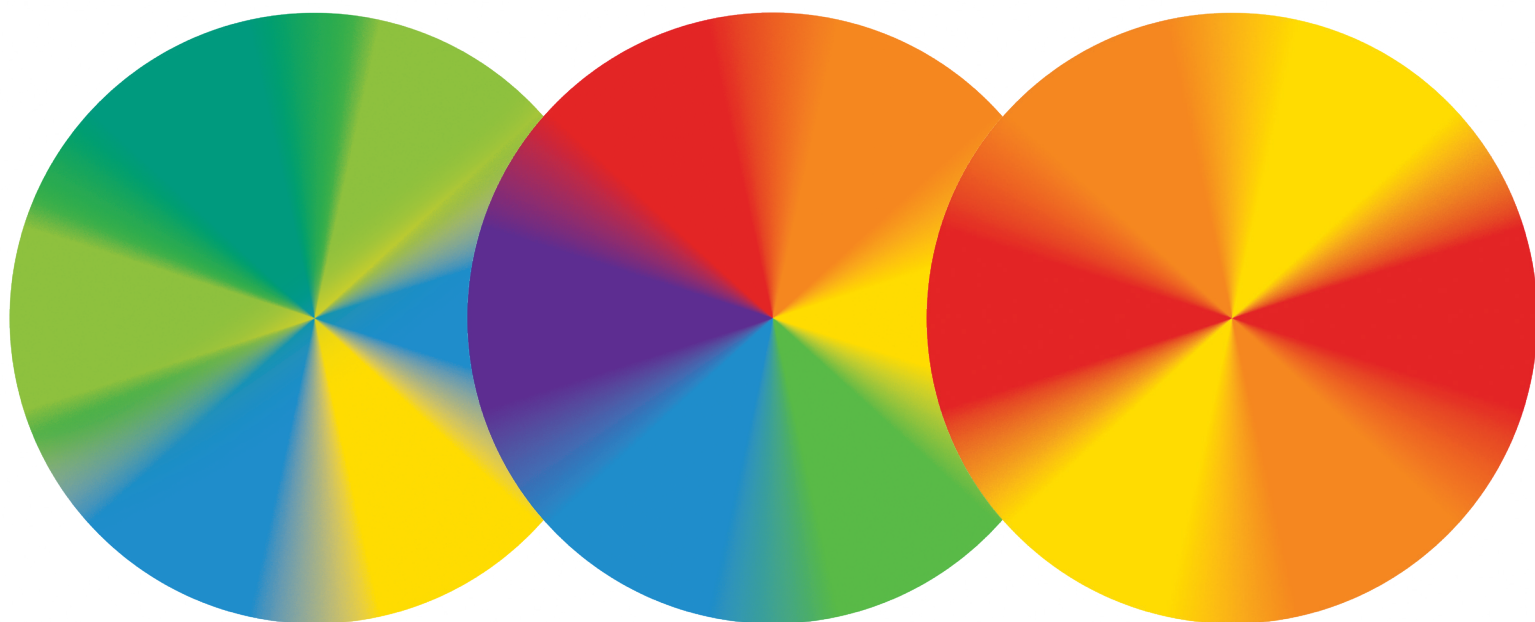


Spinning Wheels

Objective: Students will color sections of circle discs with different colors and cause the eye to think those colors have combined as the discs are spun quickly.



Key Concept: Visual perception experiments can trick the eye into thinking colors have been mixed when they really haven't.

Supplies Needed:

- Crayola® crayons
- Crayola® scissors
- poster board or thin cardboard
- circle to trace or a compass
- yarn or string (1/2 yard per student)

Procedure and Results:

1. Have each student cut out a cardboard circle (approx. 5" diameter) by tracing a lid or using a compass.

2. The front and back of each circle should be divided into pie-like sections of equal size, by drawing lines to show those sections. Students should select the colors and completely fill each section with one color. They could create patterns in their coloring. For example, alternately coloring half of the sections blue and half yellow. Students should experiment with different color combinations and predict the results that spinning will create.

3. Poke a small hole at the circle's center. Pull yarn or string through the hole. Swing the string and circle until the entire length of the string is twisted. Then briskly stretch the string with a firm pull. Watch the wheel spin and the colors merge.

4. Students who used complementary* colors may see muddy brown. Students who selected primary* colors should see secondary* colors while the wheel spins. Ask students why they think this trick of the eye occurs.

5. Explain that the wheel is spinning so fast that instead of seeing each color separately, our eyes see a mixture.

*If students are unfamiliar with the terms complementary, secondary or primary colors ask the art teacher to share a color wheel and help students explore the relationships between colors.

FACT:



Students who draw only blue & yellow in the pie slices will find their spinners appear green!