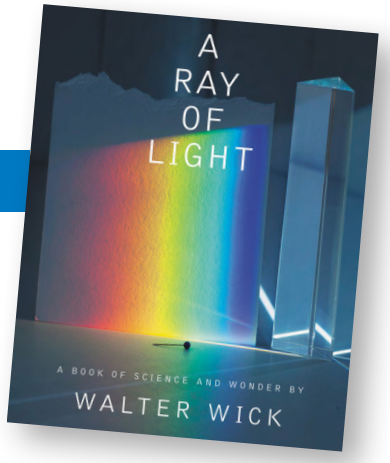
A Ray of Light

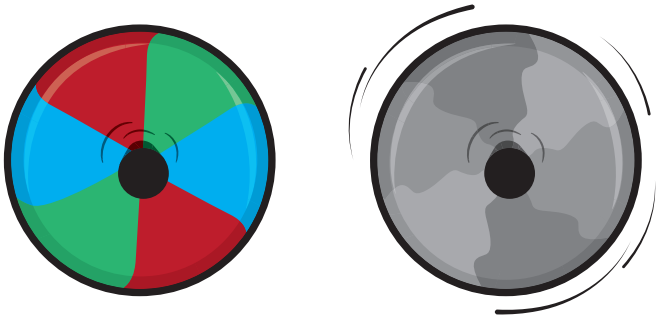


RIF EXTENSION ACTIVITIES FOR EDUCATORS

INTERDISCIPLINARY THEMES: ART, ENGINEERING, MATH, SCIENCE, TECHNOLOGY

ART

VANISHING COLOR TRICK Equal amounts of either red, green, and blue or cyan, magenta, and yellow will result in grey when spinning a top. Try it out! Have your students cut out a circular cardboard piece and divide it into six equal parts. Then color in 3 parts with the colors mentioned above. Add a stick and test it out. Your students will be amazed by what they see!



MATH

SUN AND EARTH TO SCALE The Earth is 93 million miles away from the sun. Use this activity about distance and scale to demonstrate the concept for your students. Collect a pin and a 17-inch ball (about the size of a medium yoga ball). Place the 17-inch ball in the center of a field to represent the sun. Now walk 150 feet away and hold the pin to represent the Earth. Walk around the sun to represent the Earth's revolution.

SCIENCE

LIGHT HYPOTHESES AND OBSERVATIONS
Use this activity to practice making hypotheses and observations. You will need a flashlight and some materials that will absorb, transmit, refract, or reflect (e.g., mirror, plastic wrap, tin foil, wax paper, tissue paper, etc.). On chart paper or a whiteboard, make a T-chart and write "hypotheses" and "observations." List each of the items you are going to test and write in the hypotheses column whether you think light will absorb, transmit, refract, or reflect. Then have your students test each of the items and write their observations in the observation column.

ENGINEERING

DIY KALEIDOSCOPES Kaleidoscopes work by reflecting light. Try it out by making your own! You will need a cardboard tube (i.e., paper towel roll), scissors, ruler, A4 sheet of reflective silver card, A4 sheet of clear plastic, A4 sheet of colored paper, masking tape, colored tissue-paper scraps, and black card stock.

1. Measure the length of the tube. Then cut out three pieces of silver card ½ in shorter than the length of the tube.
2. With the silver side on the inside, join the three pieces of silver card into a triangle with masking tape.
3. Slide the triangle into the cardboard tube.
4. Cut out the piece of clear plastic into a circle that is slightly bigger than the opening of the tube. Decorate the clear plastic with tissue paper, glitter, and/or sequins.
5. Tape the clear plastic over one side of the tube.
6. Cut out a small hole in a piece of black card stock and then tape it on the other side of the tube. Look through the hole in the black card, point the kaleidoscope towards the light, and enjoy the view!

TECHNOLOGY

PRIMARY COLORS SONG
Check out this song to learn about the primary colors:
OK Go on Sesame Street - Three Primary Colors
YouTube: ***https://youtu.be/yu44JRTIxSQ***