

ISAAC NEWTON

Newton's Disk

Isaac Newton discovered that light is made up of many colors. Let's learn more by making a color disk!

INSTRUCTIONS

STEP 1: Print wheel and color with markers.

(use blue, purple, green, red, orange, and yellow)

STEP 2: Cut out the wheel and cut a circle of the same size out of cardboard.

STEP 3: Glue the color wheel to the cardboard.

STEP 4: Punch two holes in the middle with a small nail.

STEP 5: Insert the ends of the string (8 ft of string, folded in half) into each little hole. Pull through so each side is even, and tie the two ends together.

STEP 6: Spin the wheel toward you, while holding the ends of the string in each hand. Continue to spin until the string tightens and twists.

STEP 7: Pull your hands apart when you are ready to spin the circle. Pull harder to make it spin faster. Watch the colors blur and then seem to lighten or disappear!

WHAT IS HAPPENING?

This phenomenon can also be described as color addition. When the colors spin so fast their reflection will blend with each other and will appear close to the color white. At first you will see the colors quickly spinning. As you spin the disc faster, you will start to see the colors blending, and they will blend together and appear white. If you aren't seeing this happen, try spinning the disc even faster. The light from all of the colors is hitting your eye at almost the exact same time. This tricks the eye into thinking you are seeing white light.

SUPPLIES

Wheel template

Markers

Scissors

Cardboard

Glue

Nail

String



