

Curiosity Labs™ by Merck:  
**chromatography**

**in this experiment, you will learn...**

- What **chromatography** is
- What chromatography is used for
- The different **pigments** used in creating colors

**Share your results and tag us! #SPARKCuriosity**

# Curiosity Labs™ by Merck: Chromatography

## SUPPLIES

- Water
- Coffee filter
- Eye dropper or straw
- Marker (not permanent)

## Instructions

### STEP 1

Using the marker make a dot on a clean, dry coffee filter.

### STEP 2

Put the filter on top of a plate.

### STEP 3

Add a few drops of water to the spot on the coffee filter.

### STEP 4

Try using different colored markers and see what happens.

Share your results and tag us! #SPARKCuriosity

## FUN FACTS

Chromatography is a very valuable technique scientists use for separating mixtures.

There are many different types of chromatography. In all of them, a gas or liquid (like the water in this experiment) flows through a stationary substance (like the coffee filter in this experiment).



## WHAT HAPPENED?

The ink separated and different colors become visible! Most nonpermanent markers use inks that are made of colored pigments and water.

When the water is dropped on the filter, the colored pigments from the ink dissolve. As the water travels from the center of the filter, it carries the pigments along with it. Different-colored pigments are carried along at different rates: some travel farther and faster than others do.