

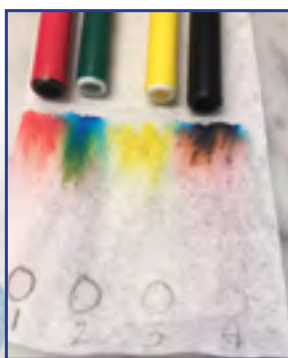
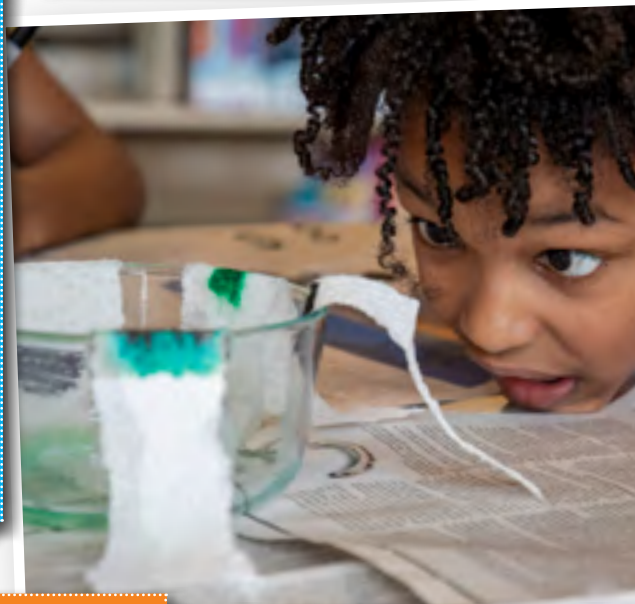
Active

What you need:

- Markers (brown, black and green work best)
- Paper towels
- Water
- Container for water
- Covering for your work surface

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1. Cover your work surface with newspaper, wax paper, etc.
2. Cut long strips about one inch wide from a paper towel. Select a marker and draw a line across the strip about two inches from the bottom.
3. Fill a container with a small amount of water. Place only the white space under the marker line into the water.
4. Drape the rest of the strip over the edge of the dish, with the end resting on your work surface. Watch the color spread as the water is drawn to the dry area of the paper towel. What colors do you see?
5. Repeat the process with other color markers. Do you observe differences in the results?

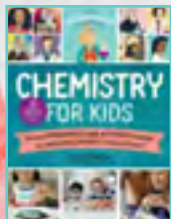


Paper chromatography is a method used by chemists to separate the parts of a solution. A solvent (such as water) is allowed to absorb up the paper strip. As it absorbs, it takes part of the mixture with it. Parts of the solution separate and become visible as strips of color. While the ink in the colored markers appears to be a single color, they are actually mixtures of several different colored pigments.



Chromatography methods are used by detectives as a powerful tool in forensic science to help solve serious crimes. They can be used to identify chemical compounds that may be present in samples from ink and lipstick to explosives used in bombs.

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