



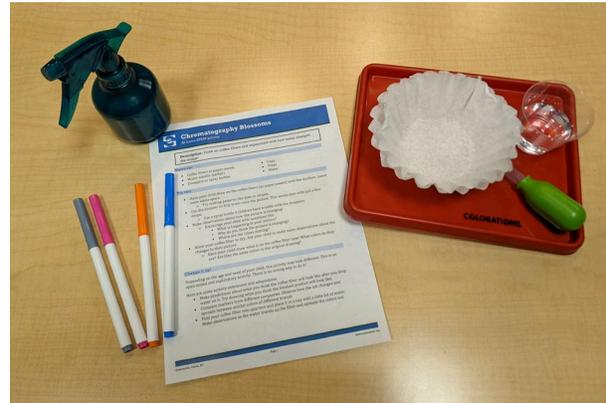
Sciencenter At-Home: Chromatography Observations

Make colorful art with markers, water, and coffee filters!

In this activity, learners will explore how water affects marker on filter paper.

Materials:

- Coffee filters or paper towels
- Water-soluble markers
- Droppers
- Cups
- Trays
- Water



Try this:

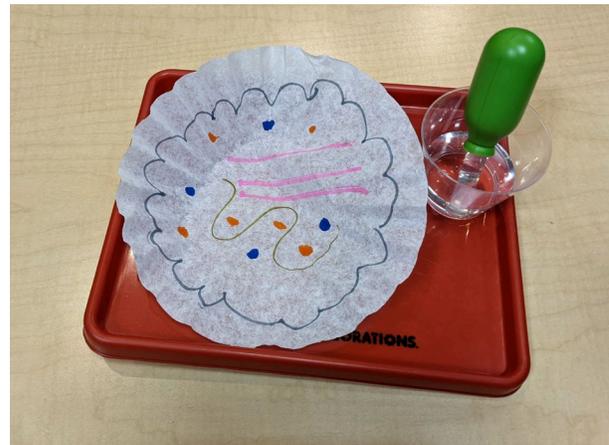
Have your child draw on the coffee filters (or paper towels) with the markers. Leave some white space.

Try making patterns like dots or stripes.

Use the dropper to drip water onto the picture. This works best with just a few drops.

Make observations about how the picture is changing! Encourage your child with questions like:

- What is happening to your picture?
- Why do you think the picture is different?
- Where are the colors moving?



Allow your coffee filter to dry. Ask your child to make more observations about the changes to their picture.

Have your child draw what is on the coffee filter now! What colors will they use? Are they the same colors in the original drawing?



Change it up!

Depending on the age and need of your child, this activity may look different. This is an open-ended and exploratory activity. There is no wrong way to do it!

Here are some activity extensions and adaptations:

- Make predictions about what you think the coffee filter will look like after you drop water on it. Try drawing what you think the finished product will look like.
- Compare markers from different companies. Observe how the ink changes and spreads between similar colors of different brands
- Pour 1 inch of water into a cup. Fold your coffee filter into quarters and into the cup so that only 1 corner of the filter touches the water. Make observations as the water travels up the filter and spreads the colors out.

Science process skills

This activity focuses on building the skills to participate in science over the science content itself. This activity focuses the learners on using skills like making observations and experimenting as they explore water soluble dyes.

We observe objects and events using our senses. While observations made only with the senses are qualitative, they help us gather information and learn about the world. Building observations skills help children expand on other science process skills like categorizing and making predictions. When guiding your child through this activity, draw their attention to the colors and movement of the water. Prompt them to make observations about these changes.

Experimenting or exploring allows us to test predictions to see an outcome. Or, how can we find an answer to our question. When guiding children through this activity, encourage them to talk about the different processes of the experiment. Ask them to describe how they got the water onto the filter. Or what were the steps of making their design? Walk them through planning a second design.

This activity exists in many versions. This adaptation was inspired by Predicting: Feather Rockets from the Collaborative for Early Science Learning copyright 2021, Sciencenter, Ithaca NY.

Retrieved from: <http://www.sciencenter.org/perch/resources/predicting-3.pdf>