Chromatography Flowers

Materials:

- White coffee filters
- Washable markers
- Cups with water
- Scissors
- Clear tape
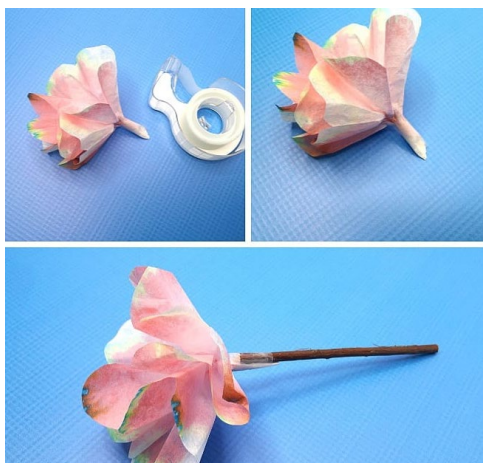- Small sticks or twigs

Procedure: Coffee Filter Chromatography

1. Choose a marker to try out first.

2. Take a coffee filter. Be sure to place it on a sheet of paper since the marker will go through the coffee filter. Draw a thick circle around the center of the coffee filter where the ridged part meets the flat center.

3. Fold the coffee filter in half and then in half again, forming a cone shape.

4. Get a short glass or cup and fill it just a bit with water. Open up the top of the cone shaped coffee filter so it balances right on the glass with the tip of the cone **just** touching the water. (Be sure NOT to let the marker circle go in the water, just the uncolored tip of the coffee filter cone. You'll know if the marker got into the water because the water will change color. If this happens just start again with a new glass of water and coffee filter.)

5. Let it sit and watch what happens as the water begins to flow up the paper. It takes about 20-30 minutes for the water and marker to completely filter to the edge of each cone.

6. Repeat the same process with different colored markers and watch what happens.

7. After the water has reached the outer edge of the coffee filter, place it on a newspaper or other paper to dry.

8. Once the coffee filters are dry, observe the results. Pretty cool!

Procedure: Make Your Flower

1. Take a coffee filter and trim off any white edges.

2. Fold the coffee filter in half four different times.

3. Use scissors to round the edge.

4. Open up your coffee filter.

5. Bunch it up and press the center together to form a mini stem. Wrap it with clear tape.

6. Use clear tape to tape your flower to a stick or twig.

Chromatography is such a fun science concept to explore! Wondering what it is? Chromatography is the separation of a mixture by passing a solution through a medium. In this case, we separated the colored ink in markers with water using white coffee filters.