



April STEM Challenge Chromatography

Challenge: Find out how many colors are inside the black ink of a marker!

Materials:

- Coffee filters (cut into quarters)
- Washable black markers
- Cups
- Water (~ 1cm. in the bottom of each cup)
- Stopwatch (or timer of some sort)

Procedure:

- Draw a thin line with a marker across the coffee filter, about 3 cm. from the bottom. (the narrow point)
- Place about 2 cm. of water in a cup.
- Put the tip of the coffee filter in the water, making sure the marker line does not touch the water.
- Wait, watch, and see what happens. 😊

Submission:

- ✓ Please submit your responses to us by mail, GST Pony, or email to **STEM Resource Center, 3153 Lake Road, Horseheads, NY 14845** or stem@gstboces.org
- ✓ Please make sure that your submission has your **name (written LEGIBLY), teacher name, school district, and grade level.**
- ✓ **Due Date: 4/20/2018**

NAME _____ Grade _____

Teacher _____ School _____

Chromatography Challenge



Materials: ☯ Coffee Filter (cut into 1/4) ☯ Washable Black Marker ☯ Transparent Cup ☯ Water (2 cm) ☯ Timer

STEP 1 Prediction: Describe what will happen to the black line on a coffee filter if you place the tip of the filter into 2cm of water?

STEP 2 Record: Draw and label what you observe. Draw the beginning, middle, and end of the experiment

Beginning	Middle	End

STEP 3 *Observe*: What did you see happening?

STEP 4 *Results*:

1. How many colors did your ink show? _____

2. List the colors that you were able to see:

STEP 5 *Explain*: Why do you think this happened?
