



Minds in Motion

Chromatography Art

Activity Rundown:

One of our favourite things in the whole wide World is when art and science come together to make one awesome creation! That's exactly what we'll be doing in this activity. By experimenting with chemical processes, different kinds of ink, and some water, we will have science-art in no time!

You will need:

- + Coffee filters
- + Cup
- + Water
- + Different brands/types of markers in multiple colours
 - + Examples: Mr. Sketch, Crayola, etc.

Let's do it!

1. Take a coffee filter and draw a thick circle(s) around the center of the coffee filter where the ruffled part meets the flat center.



You can also draw a small drawing if you would like!

2. Fold the coffee filter in half and then in half again, resulting in a pizza shape! Carefully pull the edges apart until you have a cone shape.
3. Get a short glass of water. Balance the coffee filter cone 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.)



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4. Wait and watch the water move up the filter paper!
5. When the water reaches the top of your coffee filter, carefully remove the coffee filter from the cup, unfold it so it lays flat, and allow a couple minutes for the filter to dry!



Background:

- **Chromatography** is the **separation of a mixture** (marker ink) by passing it in a **solution** (water) through a **medium** (coffee filter) in which the components of the mixture (the various colours that make up any given marker color) move at different rates. **Think of it like a race of colours!**



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- If you take a purple marker, you may be able to see it separate into its colour components: blue and red! (This depends on the marker brand.) Try using a Sharpie with this experiment... What do you notice? Why might this be?

Resources:

<https://www.giftofcuriosity.com/chromatography-flowers-using-coffee-filters-and-markers/>

Reach out!

We would love to hear from you about all the amazing STEM projects you are doing at home! Show us your finished products on any of the following social media platforms by tagging us or by using the following hashtags. We hope these projects have brought some excitement to your day during these difficult times.

Let us know how we did! Please [click here](#) to fill out a short survey on how well we did and what you would like to see more of in the future. Thank you!

Twitter: **@MyMindsInMotion**

Facebook: **@mindsinmotion2014 & @ucactiveliving**

Instagram: **@ucalgaryactive**

Please use the following hashtags!

#ucalgarycamps #ucalgarytogether