

LET'S FOLLOW THESE INSTRUCTIONS TO PERFORM THE CHROMATOGRAPHY TECHNIQUE

1

Take the color palette. Put some red food color powder in one compartment and green food color in another. Put some drops of water and mix using the paint brush to make separate solutions of red and green food coloring.



Note: Don't use all the food coloring to make the solution. Keep aside more than half of it. You'll need it for more activities later.

2

Roll a tissue paper between your palms and shape it into a wick. Half fill a paper cup with water.



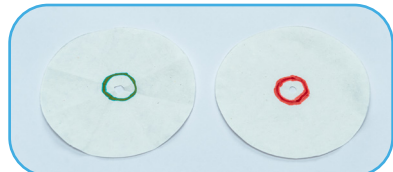
3

Fold a filter paper into a quarter. Cut the tip to create a hole for inserting the wick. The wick needs to properly touch the filter paper so make sure the hole isn't too large for the wick.



4

Use the paintbrush to paint thin bands of red and green food coloring around the hole.



5

Insert the wick inside the hole in the filter paper. Place the filter paper on top of the paper cup such that the bottom part of the wick is dipped in water.



6

Repeat the same process for red food coloring. Wait for a couple of minutes. What did you observe?

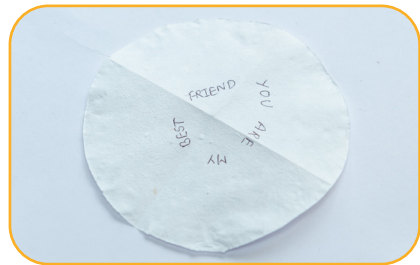
DO YOU KNOW THAT WE CAN PLAY A FUN GAME WITH THIS TECHNIQUE? THE GAME IS CALLED SECRET MESSAGE.



THE INSTRUCTIONS BELOW WILL GUIDE YOU IN THIS GAME

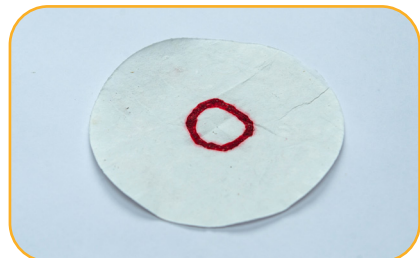
1

Write a message around the center of filter paper. Use a ball pen or pencil. Do not use water soluble ink.



2

Prepare a denser solution of food coloring. Use the paint brush to cover the message with this new solution.



3

Let it dry and exchange these secret messages with your friends. Ask your friends to use chromatography to let water remove the colors and reveal the messages.



Think like a physicist

Why does the food coloring also spread with water along the filter paper?

Think like a mathematician

Why does the spread of water slow down as the wet region gets larger?

DID YOU NOTICE HOW WATER RISING THROUGH THE PAPER CARRIES THE COLORS WITH IT? LET'S USE THIS PROPERTY TO CREATE ART WITH WATER.



THESE INSTRUCTIONS WILL GUIDE YOU

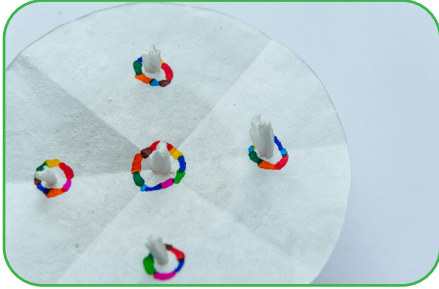
1

Cut multiple holes in the filter paper.



2

Create as many wicks as the number of holes in the filter paper. Use sign pens to draw colorful circles around the holes. Insert the wicks into the holes.



3

Half fill the paper cups with water. You might need more than one paper cup if the holes are far apart. Place the filter paper on the cups. Make sure to dip the bottom of the wicks in the water. Let the water rise through the wicks.



4

As water carries the colors away from the center, sprinkle the powder food coloring gently on the wet circles around the wicks. Let water carry them too along with it.

Note: Sprinkling too much powder can ruin your art. Make sure you sprinkle just a little powder.

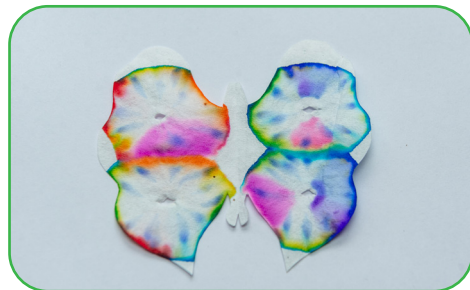


5

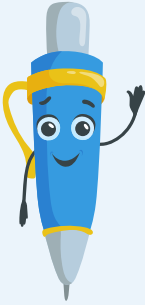
Remove the wicks when you no longer want the colors to spread. Let the filter paper dry for some time.



USE YOUR OWN
DESIGNS TO CREATE
SOME FANTASTIC ART.
THE MODELS BELOW
WILL HELP YOU GET
IDEAS.



WE FOUND THESE TIPS HELPFUL WHILE CREATING ART WITH WATER



- ✓ The wick should fit firmly in the hole. Water spreads slowly if the filter paper is loose around the wick.
- ✓ Sprinkle the color powder gently and in a small quantity. Too much food color will overshadow the other colors on filter paper.
- ✓ The water in the cups should be enough to wet an entire filter paper.

Reflection

Complete the sentences:

- I used to think _____
and I now think _____
- I want to learn more about _____

What ideas did you get from the works of your classmates?
