

# It's Ink-redible!



to the California Science Center

## VIRTUAL Field Trip



### THE SITUATION

Mariela loves drawing and science. She wants to create a science sketch that explains what the ink in her favorite drawing marker is made of.



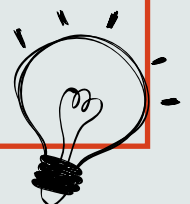
**Focus Question:**  
How can you show particles that are too small to be seen?

**Buzzword:**  
Mixture

What do you think black ink is made of?

### HYPOTHESIS

Draw a science sketch to explain what black ink is made of.



# EXPERIMENT



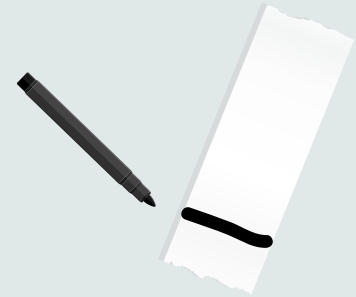
## Materials:

- Black washable marker
- Paper
- Coffee filter, paper towel, or napkin cut into strips about 2 inches wide and 4 inches long
- Container filled with 1/2 inch of water
- Optional: clothespin, clip, or tape

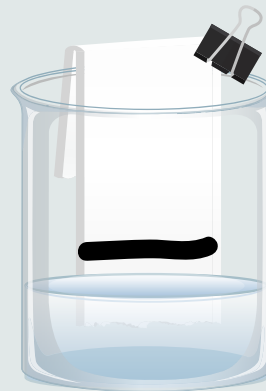
Separating mixtures this way is called chromatography.

Do this experiment with Mariela to figure out what is inside of the marker ink.

1. Use the black marker to draw a thick horizontal line about 1 inch from the bottom of your test strip.



2. Carefully place your test strip into the water. Make sure the marker line stays above the water.

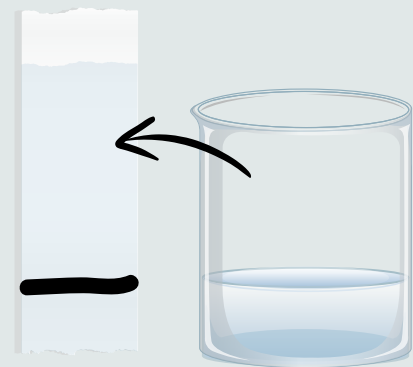


Optional:  
Use clips to hold the strip in place!

3. Wait 1 to 4 minutes until you see something begin to change.



4. Remove the test strip from the water after 4 minutes OR when the top of the strip becomes wet.



Discuss your answers to questions 1&2 before you make a final science sketch!



Particles are the very small pieces that make up larger things.



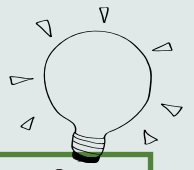
## WHAT'S GOING ON?



1. Describe what you saw happen to the test strip.

2. What does the experiment tell you about the particles that you can't see in black ink? Use your test strip as evidence.

## SCIENCE SKETCH



**What do you think black ink is made of?**  
Draw a model to show the particles in the ink mixture.

**Your model must include:**

- at least 3 different ink particles.
- labels or symbols to explain what is happening to the ink particles.

There are many ways to draw a science sketch! Be creative. You can use a Thinking Map, a comic strip, or diagram to show what happens to the particles.

A large, empty rectangular box with a red border, intended for students to draw their science sketch of ink particles.