

Amaze Your Brain *at Home!*

EXPERIMENTS

BEST FOR
18 months-
4 years

LEAF CHROMATOGRAPHY

MATERIALS

- A variety of leaves, preferably different colors
- Small bowls (one for each leaf)
- Coffee filters, cut into strips
- Rubbing alcohol



INSTRUCTIONS

1. Using your fingers, break up the leaves into smaller pieces. You could even crush them with the back of a spoon. Put the leaf pieces in a small bowl.
2. Pour rubbing alcohol into the bowls, covering the pieces of leaves.
3. Put one end of a strip of coffee filter into each bowl, so it is sitting in the alcohol.
4. Wait, and observe your experiment over the course of a few hours.

WHAT'S HAPPENING?

Plants make their own food through a process called photosynthesis. To perform photosynthesis, they must contain a pigment called chlorophyll. Chlorophyll is what gives leaves their green color! When leaves change color in the fall, they have less chlorophyll, and you can see the other pigments come through. Leaves can have yellow, orange, and red pigments!

In this experiment, you used rubbing alcohol to dissolve the pigment from the leaves. As the pigment dissolves in the rubbing alcohol, the coffee filter absorbs it. Some pigments dissolve more easily than others. You can see those pigments because they have had more time to travel further up the coffee filter. What color pigment traveled the furthest?



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