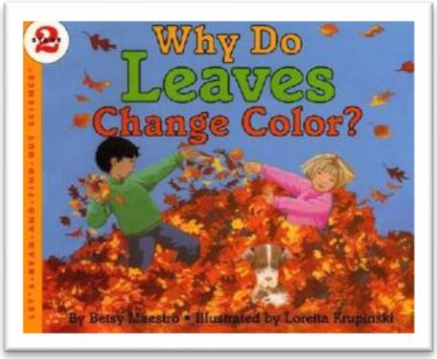
Explorations Gr 2-3 Science Nov 2

Why Do Leaves Change Colour?



Read or Listen:

Read

Obtain from your public library one or more of these books (or listen to the linked storytellers):
Why Do Leaves Turn Colour?

Red Leaf Yellow Leaf

Then go outside and collect some leaves! Look for leaves of different colours and shapes. Please only take leaves that have fallen on the ground…leaves still attached to plants are still doing their job of providing energy for the plant to live through the winter.

Leaf Chromatography Experiment

Materials Needed: Glasses or jars or clear plastic containers (one for each leaf color); mortar and pestle (or a spoon and bowl); Isopropyl alcohol (rubbing alcohol)**to be handled under adult supervision; white coffee filters; leaves of at least 2 different colours.

To Experiment:

-Cut coffee filters into strips (2 cm wide by 10 cm long—or as long as you can).

-Sort your leaves by colour, and pick the best of each colour to use in the experiment (you might have red, yellow, purple and green, for example).

-crush the leaves with the mortar and pestle, or use a spoon and bowl to mash them up.

-put each mashed leaf into a separate glass or jar or cup.

-carefully, with ADULT SUPERVISION, put about ½ cm of rubbing alcohol in the bottom of the jar. Push the leaf bits into the alcohol with a spoon.

-label each container with the colour of leaf (or tape an unsmashed leaf of the same type to the back so you will remember)

-let stand overnight

-the next day, place one end of a coffee filter strip in the alcohol, and fold the other end over the top of the jar.

-let sit for 1-2 hours, watching as the coloured pigments move up the strip.

-take the strips out and let them dry.

Questions to Talk About:

- What colours can you see in the strips?
- Which leaves had the most colours (pigments)?
- Can you research to find the names of the pigments?
- What do you observe?
- What do you wonder?
- What would you do next time to make this experiment work better?

For more details on this and for a lot of other experiments, go to the Playdough to Plato website.