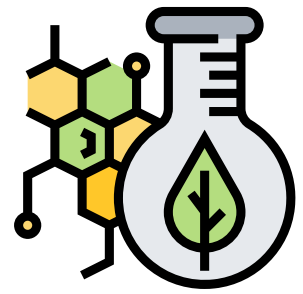


Leaf Color Extraction

Have you ever wondered what makes leaves green? Leaves are colored by a pigment called chlorophyll. Chlorophyll is a chemical that helps plants absorb sunlight and gives leaves their color. Let's see if we can get a closer look at our favorite fall colors.



Materials:

- Water
- Rubbing Alcohol
- Glass Jars or Cups
- Plastic Wrap
- Different Colored Leaves

You will need an adult's help with this activity.

Procedure:

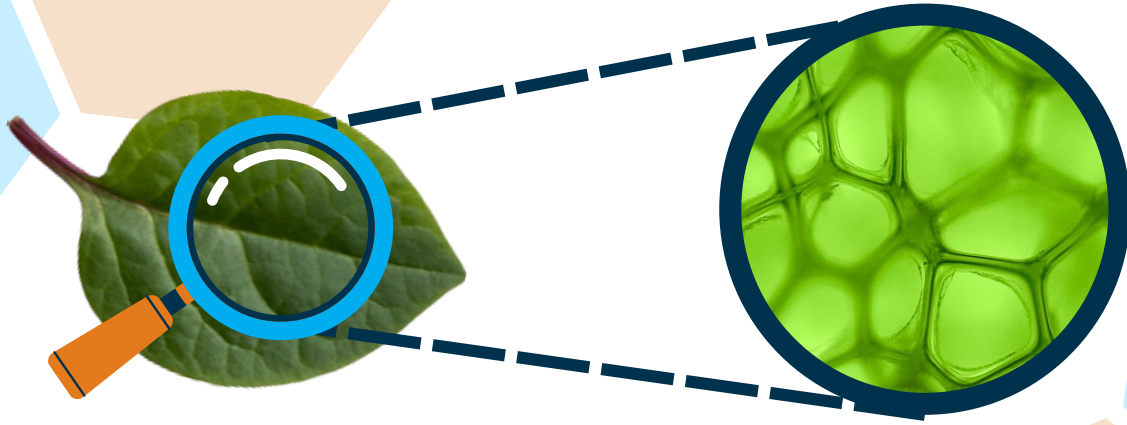
1. Go outside and collect some leaves! Make sure to collect leaves that are all different colors.
2. Ask an adult for help with this step! Boil your leaves in water for two minutes.
3. Ask an adult for help with this step! Remove the leaves from the hot water and let them cool. Once they cool down, sort the leaves into groups based on their color.
4. Tear the leaves into smaller pieces and put each group into their own jar or cup.
5. Pour rubbing alcohol into each container. Make sure to pour enough to cover the leaf pieces.
6. Cover the containers with plastic wrap and let them sit for at least 30 minutes.
7. Observe the color of the rubbing alcohol. What do you see? If you would like to see the results better, you can remove or strain out the leaves.



Leaf Color Extraction

WHAT'S HAPPENING?

The chlorophyll in leaves makes them green, so why are they so many different colors in the fall? Well, leaves have yellow and orange pigments year-round, but they are often masked by the green of the chlorophyll.



When the temperature starts to drop in the fall, less chlorophyll is produced, allowing the yellow, orange, and red colors to show through!



DID YOU KNOW?

A **botanist** is someone who studies everything about plants. If you liked exploring this activity, maybe botany is for you!