Chlorophyll Leaf Experiment

NEW YORK RESTORATION PROJECT

Have you ever wondered why leaves change color in the fall?
Leaves contain pigments that give them their colors known as **"Chlorophyll"**. Chlorophyll helps with the job of photosynthesis by absorbing energy from sunlight while the leaves use this energy to make sugars, which are food for the plant.

In autumn or during a dry season, the leaves of deciduous trees lose their chlorophyll. As the leaves' green color fades, red, yellow, or orange pigments become visible. " *kids.britannica.com*

You can do an easy science experiment to find out what pigments are in leaves.

You might be surprised at the results!

Supplies
•Leaves
•Markers
•Coffee filters
•Scissors
•Pencils, or pens
•Paperclip or tape
•Measuring spoons
•Isopropyl alcohol
•Clear jars, glass, or cup

First go on a leaf hunt. Collect several different leaves. Fresh leaves are best. Be sure to get some green ones and other colors if you like.

Get ready for your experiment by cutting a strip out of the coffee filter. To get the longest strip, you'll want to cut it out of the middle. Roll one end around a pencil and secure it with tape or a paperclip. Let the other end of the strip hang down. Test the length by setting it down into the clear container. You want it to go almost to the bottom of the container, but not quite.

Now the fun part. Tear, crunch, squish and grind a leaf up and put it in one of the clear containers. You can use your fingers to tear, and the rounded side of a spoon works well to squish.

Once you have crushed your leaves, add 1 Tablespoon of water and 1 teaspoons of isopropyl alcohol to the container.

If the leaves are not covered by the liquid, you can add more. Give the container a gentle swish and swirl. Set the pencil holding the strip of coffee filter down across the container.

Let your experiment sit overnight.

Questions

1. What did you find out from this experiment?

2.Can you see different colors? Some may be subtle, look closely!

3. Did you get the results you expected?

Try this with other things that contain pigments, like fruits and vegetables, or colored paper.