

# Leaf Chromatography Experiment

*Chromatography is the separation of a dissolved mixture by passing through a filter paper through which different parts of the mixture will move at different rates*

## Objective:

To see the different pigments that are found inside fall leaves.

## Supplies:

- Leaves of different colors
- Small glasses or jars
- A tool to crush the leaves, such as a spoon
- Paper towels or coffee filters
- Rubbing alcohol
- A bowl or dish big enough to place the jars inside

## Method:

1. Head outside and collect leaves of different types and colors. Try to gather 2 to 3 leaves of each type. You can even try gathering leaves at different stages of turning colors.
2. Get one jar ready for each color of leaf collected. Rip up one type of leaf into each jar. Make sure the pieces are super small.
3. Add enough rubbing alcohol to cover the pieces of leaves. Use the back of a spoon or other tool to mash up the leaves even more.



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## Leaf Chromatography Experiment cont.

### Method (continued):

4. Time to heat the jars. Set the jars in a large dish or bowl. Add hot water to the bowl. Warming the rubbing alcohol speeds up the process of drawing out the pigments from the leaves.

5. Now wait! Let them sit for approximately one hour. Give the jars a mix every once in a while to help release the pigments. Refresh the hot water if it cools too much. You should notice the alcohol turning color now.

6. Place a strip of coffee filter or paper towel into the jar and observe the liquid travel up the paper towel. Wait approximately 30 minutes to see how the colors fill up the paper.

### Further Questions:

- What would happen if you left the experiment to sit overnight?
- Did you try a green leaves? What would happen/did happen?
- Was one pigment more vibrant than the others?



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