



PLANTING FIELDS

Education Center
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Fall Foliage Experiment!

Leaves contain more colors than just green. Chlorophyll is the pigment that makes leaves green. During the summer, chlorophyll is more dominant so it hides the other pigments present in the leaf. Once summer is over, chlorophyll production slows down and then stops. This allows the other colors to show through! We can find the other pigments and separate the colors by doing this leaf chromatography science experiment.

Materials:

1. Leaves
2. 2 Jars
3. Plastic Wrap
4. Rubbing Alcohol
5. Coffee Filters

1 Go outside on a nature walk with parent/guardian supervision. Collect green leaves from two different trees.



2 Break the green leaves into tiny pieces and put them in two separate jars labeled tree 1 and tree 2.



3 Cover your broken leaves in rubbing alcohol and mix. Let sit for 1 hour, stirring occasionally. Cover the jar in plastic wrap.



4 Take plastic wrap off and place paper coffee filter strip into rubbing alcohol. Make sure just one end of the strip is in the alcohol and the other end is near the top of the jar.



5 Let your coffee filter strip sit for 1 hour. Record your observations!



Did you find all the colors?

Green: Chlorophyll Red: Anthocyanin Orange: Carotene Yellow: Xanthophyll