SCIENCE EXPERIMENT · AGES 5–12

Hidden Colours in a Leaf

Why do leaves change colour? Find out!

What you need



3 or 4 green leaves



A small glass jar



Rubbing alcohol (grown-up)



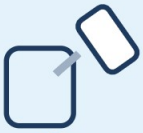
Coffee filter, pencil, tape

Easy version for ages 5 and up: the leaf colour hunt on page 2 needs only a bag and a pencil.

Step by step



1. Tear the leaves into tiny bits. Crush them in the jar.



2. Grown-up: pour in alcohol to just cover them.



3. Wait 30 to 60 minutes until it turns green.



4. Tape a filter strip to a pencil. Let it just touch the liquid.



5. Wait 30 to 90 minutes. Dry it and count the colours.

Why it works

Leaves are green because of **chlorophyll**. It helps the leaf make food from sunlight. Chlorophyll hides **yellow** and **orange** colours that are in the leaf all summer.

In autumn the green breaks down, so the hidden colours show. Red is new: some trees make it in autumn.

Learning outcomes

1. **I can observe**
   Find and sort leaves by colour.
2. **I can explain**
   Green chlorophyll hides other colours.
3. **I can test fairly**
   Compare two leaves the same way.

Fair test tip

Try a **green leaf** and a **yellow leaf** from the same tree. Use the same amount of alcohol and wait the same time. Which strip has more green?

Change: the leaf | Keep: alcohol, time

Watch out

- [ ] A grown-up pours the rubbing alcohol.
- [ ] Keep it away from flames and heat.
- [ ] Open a window. Do not smell it up close.
- [ ] Never drink it. Wash your hands after.

SCIENCE EXPERIMENT · RECORD SHEET

Leaf Record Sheet

Predict first. Then look closely and write what you found.

Name: _____ Age: _____ Date: _____

1. Leaf colour hunt: find 10 fallen leaves

Colour	My guess	How many I found
Green		
Yellow		
Orange		
Red		
Brown		

2. Leaf chromatography: count the colour bands

Leaf	Bands I predict	Bands I saw	Colours I saw
Green leaf			
Yellow leaf			

Tape your dry strip here

Label each colour band: green, yellow, orange.

What I found out

The hidden colours were _____

In autumn the green _____

The leaf with the most green was _____

You are a leaf scientist!