

Experiment 5: Transpiration in Living Leaves

Plants absorb water from the soil and release through the leaves into the atmosphere. This is called transpiration.

Materials:

- Transparent bags
- Pen
- Rubber band or twist tie
- Healthy outdoor plant with leaves - ideally in the sun

Instructions

Step 1

Select an outdoor plant with large green healthy leaves – ideally on a sunny day.

Step 2

Place a transparent bag completely over a sunny section of the plant, so several leaves are inside the bag sealing it with a rubber band.

Step 3

Look at the water cycle – make a prediction.
What do you think will happen in the bag.

Step 4

Check back in 2 hours to see if anything has happened in the bag, you might have to leave it for even longer!

Step 5

Record your findings.
What part of the water cycle does this experiment show?

Step 6

You can try this experiment on different plants.
Do some plants transpire more than others?
Does it matter if it is in the sun or in the shade?
Does the experiment work at night?

You could take this experiment further and compare how much water transpires from different types of leaves or at different times of day.

