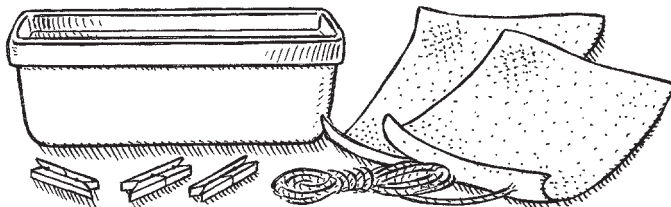


Which leaves lose water fastest?

Water from leaves evaporates into the air. This means that plants have to get more water from their roots. However, in a drought, or when the ground is frozen, water loss can be a problem. Which leaves would be best in these conditions? Wide, flat leaves like an oak tree or thin, spiky leaves like a pine tree? Carry out the investigation below to find out.

You will need:

- two pieces of paper kitchen towel
- three clothes pegs
- one metre of string
- water



What to do

1. Use the string to make a mini washing line.
2. Soak both pieces of kitchen towel with water. These will represent your leaves.
3. Roll one sheet into a thin tube, about as thick as a pencil to represent a pine needle. Leave the other sheet flat to represent an oak tree leaf.
4. Use the pegs to hang both pieces onto your washing line.
5. Check the pieces of kitchen towel every 30 minutes to see if they have dried out.



Once you have completed the experiment, answer the questions below on the back of the worksheet.

- A Which piece of kitchen towel dried out the fastest?
- B Why do you think this is?
- C Which shape leaves would be best to have in winter, when the air is dry and the ground is frozen? Wide, flat ones or thin, spiky ones?
- D What does your experiment tell you about why some trees drop their leaves in autumn, while others keep them all year round?