



Activity worksheet

Why do leaves change colour in the autumn?



Once you have watched the demonstration video and tried out the experiments for yourself, try answering some of these questions:

Question 1

What is the name of the method used to separate the pigments in a leaf?

- a) Chromatypography
- b) Chromatology
- c) Chromatography

Question 5

What liquid is used to separate the pigments in this experiment?

- a) Water
- b) Vinegar
- c) Acetone

Question 2

What is the name of the pigment that gives leaves their green colour?

- a) Chlorophyll
- b) Chloroplast
- c) Carotenoid

Question 6

Which coloured pigment travels the furthest up the filter paper?

- a) Green
- b) Yellow
- c) Red

Question 3

Where does photosynthesis take place inside the leaf?

- a) Inside the vacuole
- b) Inside chloroplasts
- c) Inside the nucleus

Question 7

What is the name of the cells that reside under the waxy top layer of a leaf?

- a) Cuticle cells
- b) Storage cells
- c) Palisade cells

Question 4

True or false: there are multiple coloured pigments present in a leaf.

- a) True
- b) False

Question 8

True or false: the yellow pigment is more soluble in acetone than the green pigment.

- a) True
- b) False

Answers: 1) c, 2) a, 3) b, 4) a, 5) c, 6) b, 7) c, 8) a

Mark out of 8: