

Y3 Water Transport In Plants

KS2 Science · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

Describe the journey of water through a plant.

Step 1 · Where does the water start?

In the soil

Step 2 · Which part takes it in?

The roots absorb it

Step 3 · How does it travel up?

Through tiny tubes in the stem

Step 4 · Where does it end up?

In the leaves and flowers

Answer: Soil → roots → stem → leaves and flowers.

Check: Water moves UP the plant, from the bottom to the top.

2. Now try one with the steps

A white carnation stands in blue water. After a day its petals have blue edges. Explain why.

Step 1 · What did the stem take up?

Step 2 · Where did the water travel?

Step 3 · What did the colour show?

Answer:

3. Practice

Have a go at each one. There is space underneath to work it out.

1. Which part of the plant takes in water from the soil?

2. Which part of the plant carries water up to the leaves?

3. Does water travel up or down the stem?

4. Put these in the order water reaches them: leaves, roots, stem.

5. Why do we add food colouring to the water in the celery experiment?

6. What happens to a plant's leaves and flowers if the water cannot reach them?

7. After 4 hours the colour had climbed 7 cm. After 8 hours it had climbed 12 cm. How far did it climb between 4 and 8 hours?

8. What equipment would you use to measure how far the colour has climbed up a celery stalk?

9. A celery stalk is 20 cm tall. After 24 hours the colour has climbed 20 cm. Where has the colour reached?

10. Jade puts one celery stalk in a warm room and one in a cold room. What must she keep the same to make it fair?

11. If you cut across a celery stalk after the experiment, what would you see?

12. A white flower stands in blue water. Why do the petals turn blue and not the leaves only?

13. Write a conclusion for the celery experiment.

4. Before you hand it in

Plants drink water through their leaves.

Roots take in water; the stem carries it up to the leaves and flowers.

The food colouring is what the plant needs.

Food colouring is a 'tracer' that shows us where the water goes.

Water just sits in the stem.

Water travels up the stem all the time, from the roots to the leaves and flowers.

Measuring the colour from the top of the stalk.

Measure from the bottom of the stalk (the water line) up to where the colour stops.