

Can water move up a flower?

Experiment:

To examine the transport system in a flower.

Materials:

You will need:

- Red food-colouring,
- 1 white carnation,
- 1 jam jar, water.



Method:

1. Fill the jam-jar $\frac{3}{4}$ with water.
2. Add 2 dessert spoons of food-colouring to the water.
3. Place a white carnation into the water.
4. Record and observe the results over 5 days.

Result:

Day 1: The carnation was still pretty white.

Day 2: If you looked carefully at the inside of the carnation you could see a red tint.

Day 3: Red spots started to appear on the petals of the carnation.

Day 4: More red spots appeared on the carnation.

Day 5: Red spots could be seen all over the carnation and on some petals you could see the veins inside the petal.

Conclusion:

The dyed water moved up the flower, proving that water can move up a flower.

Find out more!

Inside plants are special vessels that transport food and water up and down the plant.

These vessels are called Xylem and Phloem vessels. The Xylem vessels transport materials from the roots to the leaves and the Phloem vessels transport food made by the leaves to the rest of the plant.

Try This!

Split the stem of a carnation and use two different coloured dyes like in the image above and see what happens!

You can also try this experiment with celery!