

Investigation

Does changing the length of a flower's stem affect the amount of water it absorbs?

As you may know, the stem of a flower has two main roles. Firstly, it is a support to hold the flower up. But most importantly, it draws up nutrients from the water in the roots to the flower and leaves. It's basically the main transport network for all the food and drink deliveries a flower might need to keep growing. This investigation is going to explore whether the length of the stem affects how much water the flower is able to draw up. This is a great experiment to do if you have flowers growing in your garden and adults who are happy to let you use them in an experiment.

You will need:

Three stems of flowers (they need to be the same type of flower to keep this a fair test) They need to have the same amount of flower heads and similar number of leaves as each other.

Three vases or jugs for you to keep the stems in

A ruler to measure the stems

A measuring jug to measure the water

Method

You will need to fill each vase/jug with 200ml water. You will measure this over time as the experiment continues. Your vases/jugs must be placed in a sunny location altogether (perhaps on a windowsill) so they get the same amount of sunlight. Try to find stems that are already long and choose three measurements you can get from them. I have chosen the following lengths but you may need to change yours depending on what flowers you have:

Stem A: 20cm long

Stem B: 15cm long

Stem C: 10cm long

Stem	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7
A: 20cm	200ml						
B: 15cm	200ml						
C: 10cm	200ml						

Try to measure your remaining water at the same time every day to minimise your variables. Record your data in a table like this one here. Write up what you discover after the experiment.

Challenge: Can you create a chart or a graph to show off your data?

