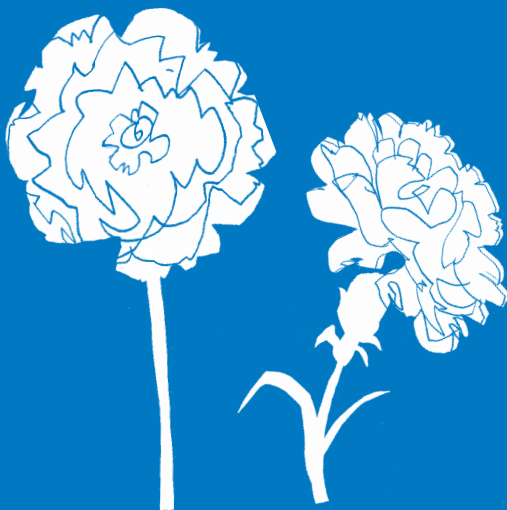


SCIENCE
CHALLENGE

21

COLOURED CARNATIONS



THE
JAMES
DYSON
FOUNDATION

COLOURED CARNATIONS

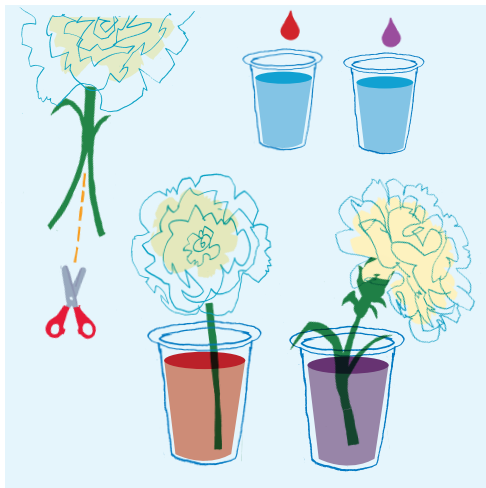
Designed by Adam,
Science teacher and former
Design engineer at Dyson

The brief

Create multi-coloured flowers.

The method

1. Use the scissors to cut the stem of the carnation in half lengthways.
2. Take two cups and fill them with water. Add a different coloured food dye to each cup.
3. Put the split stems of the carnation into the cups and leave overnight.
4. The next morning you should find that your flower has changed colour.
5. What do you notice about the petals?



Materials

White carnations

Two colours of food dye

Plastic cups

Water

Scissors

(with adult supervision)



How does it work?

Plants need a transport system to move food, water and minerals around.

There are two things that combine to move water through plants – transpiration and cohesion.

Water evaporating from the leaves (transpiration) draws water up the stem of the plant to replace what is lost. This works in the same way as sucking on a straw. Water that evaporates from the leaves “pulls” (cohesion) other water behind it up to fill the space left by the evaporating water.