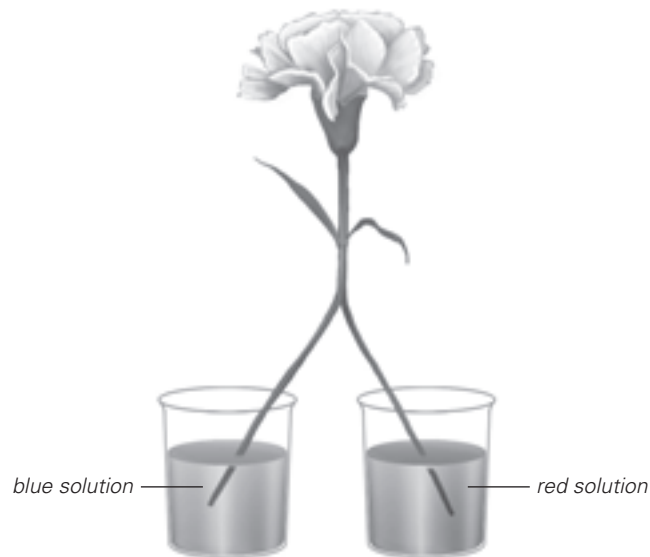




Activity

1. Add a spoonful of red colouring into a beaker of water and a spoonful of blue colouring into the other beaker of water.
2. Cut along the stem of the carnation stalk straight down the middle as shown in the diagram below.
3. Place one side of the cut stem into the beaker of red water and the other side of the cut stem into the beaker of blue water.
4. Leave the set-up aside overnight.



Expected observation

- The flower appears half-red and half-blue.

Explanation

- The coloured water is absorbed by the stalk. Water travels up the stem of the plant to the flower.

Conclusion

- Both the red-coloured and blue-coloured water are absorbed by the stalk.

Question

- What do you observe about the flower? Explain your observation.

Half of the flower is red and the other half is blue. The coloured water travels in separate xylem tubes up the stem of the plant. The xylem tubes in the stem run all the way from the stem to the petals of carnation. This causes the petals of the carnation to turn half-red and half-blue.