Activity 6: How does water travel through a plant?

These two activities can be used with more able children at upper primary, to show that water is taken up by the roots and then travels through the plant to the leaves.

Activity 6a: Following the pathway of water through celery

Resources

- *celery (with leaves, if possible)*
- *a knife*
- *coloured ink, e.g. red or blue (mixed 50 : 50 with water)*
- *suitable container to hold the celery*

The activity

- Place some whole pieces of celery in the container so that one end stands in the coloured ink mixture, with any leaves at the top. Discuss with the children what they think might happen.
- After a few hours, let the children take a celery piece out of the ink mixture and cut it into three equal parts. They should write down their observations. [They are likely to see several dots (red or blue, depending on the colour of ink used).]
- Then they can take another of the pieces of celery, slice it in half lengthwise and again write down their observations. [Now they are likely to see coloured lines (red or blue). These are the 'tubes' that the water travels through.]
- The children can try and pull the coloured lines that they see from the celery. Discuss with the children what these coloured lines are and why they are the same colour as the water the celery has been standing in.

Activity 6b: Loss of water from a plant

Resources

- *a potted plant, such as a geranium* (Pelargonium)*, preferably with a strong central stem*
- *2 clear polythene bags, one larger than the other (and large enough to fit over the plant)*
- *2 elastic bands*

The activity

- Water the potted plant.
- Place the pot of the potted plant in the smaller polythene bag and tie the bag around the lower part of the stem with one of the elastic bands.
- Now put the whole plant in the second larger polythene bag and secure the top of the bag with an elastic band.

Discuss with the children what might happen. After a few hours, the children are likely to see droplets of water on the inside of the polythene bag. Discuss with them how the water has got here.

Curriculum links

National Curriculum (Sc2)	**KS2: 3c**
QCA guidelines – Scheme of work	**Unit 3B**
Scottish ISE 5-14 framework/attainment targets	**LT-C2.4**