**INVESTIGATING THE TRANSPORT OF WATER THROUGH A STEM**

**AIM:** To observe and label the parts of the vascular bundles in celery

**EQUIPMENT**: celery stem 250 mL conical flask

scalpel red ink hand lens

**PROCEDURE**:

1. Fill the conical flask with water to a depth of 5cm.

2. Add red ink to the water until it is a deep red.

3. Use the scalpel to make a clean cut across the celery stem near its base.

4. Put the celery stem in the flask and leave it in a well lit position until your next science lesson.

Next science lesson

5. Remove the celery from the flask and answer question one.

6. Use your scalpel to make a clean cut across the stem about half way up and answer question two.

7. Make a cut down the length of the stem and answer question three.

8. Use your observations to answer questions four to six.

**QUESTIONS**:

1. Describe what you see along the length of the stem.

2. What can you see on the cut end? Draw what you see. Use the microscope to help you.

4. What evidence is there for water being drawn up the stem?

5. Is water drawn up through all of the cells across the stem, or just particular bundles of cells?

6. What is the name of the vessels in a plant that transports water?