

Name: _____

Class: _____

PLANT TISSUE – CELERY

Purpose:

The purpose of this activity is to examine the _____ tissue in plants.

Equipment:

- Microscope
- Microscope Slide
- Tweezers
- Food Colouring
- Beaker
- Celery
- Knife
- Cutting Board



Procedure:

Day 1:

1. Place several drops of food colouring (not green) in a beaker, with 150 ml of water and stir.
2. Cut the bottom off of a stalk of celery.
3. Place the celery, with leaves still attached, in the beaker.
4. Let set, in sunlight or bright light, for a day.

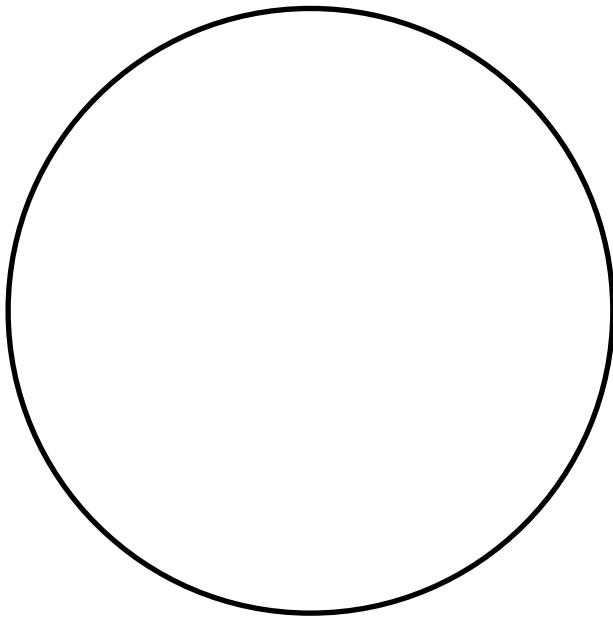
Day 2:

1. At the bottom of this page, make relevant written observations about the celery stalk as it appears in the beaker.
2. Carefully cut a thin crescent shaped cross-sectional slice from the celery.
3. Draw the cross-section as it appears with the naked eye, add colour, label the tissue types, and add notes.
4. Observe the celery under the microscope, looking for evidence of the food colouring.
5. Draw the celery at the 40x or 100x magnification (do not go to 400x), add color, label the tissue types, and add notes.

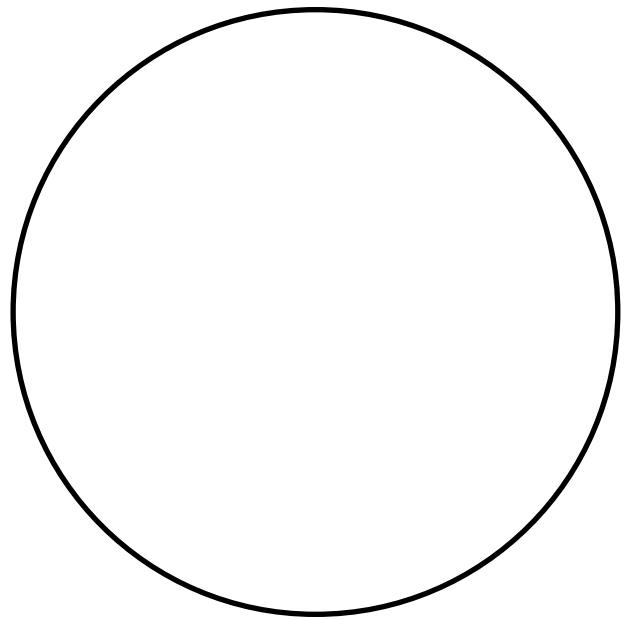
Note: Consider the following safety concerns:

- The knife is sharp, take your time, and be mindful of your surroundings.
- The beakers have been used for other experiments, do not consume the celery
- Food colouring will stain both your body and your clothes.

Observations (whole stalk):



Notes:



Notes:

Discussion:

The food colouring was visible in the vascular tissue of the celery. Specifically, which type of vascular tissue, the xylem or the phloem, was coloured? Explain why only one of them was.

How might a florist use a knowledge of vascular tissue?
