

Background:

I. ROOT Function:

ROOTS

- 1) absorb W _____.
- 2) H _____ plant in place.
- 3) store F _____ for later.

II. ROOT Parts and their functions:

- a) VASCULAR tissue or tubes T _____ food and water.
 - 1) XYLEM tubes take water ____, (which direction?)
 - 2) PHLOEM tubes transport food _____.
- b) ROOT HAIRS increase surface area and A _____ water.
- c) EPIDERMIS cells P _____ and keep the ROOT cells from drying out.
- d) CORTEX cells S _____ food for the plant to use later.
- e) SECONDARY ROOTS extend out for more W _____ and better holding.
- f) CAMBIUM cells divide by MIT _____ to make new XYLEM and PHLOEM cells.

III. ROOT Cross- Section Drawing:

Follow in-class directions for a scientific drawing of your carrot cross-section (slice).

- a) Label XYLEM, PHLOEM, CORTEX, and EPIDERMIS.
- b) Use a >-- label to show XYLEM and PHLOEM make the VASCULAR CYLINDER.
- c) Label the line between the XYLEM and PHLOEM as CAMBIUM.
- d) Add a short function for each part. (XYLEM- tubes that carry water up.)
- e) Estimate your drawing size: _____X

Have Checked: 5 points

IV. ROOT Lengthwise Section Drawing:

Do a scientific drawing of your lengthwise section of carrot ROOT below.

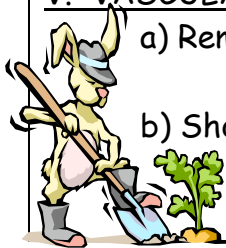
- a) Use the labels from the cross-section on page 1, including FUNCTIONS.
- b) Estimate your drawing size. ____X



Have Checked: 5 points

V. VASCULAR CYLINDER and SECONDARY ROOTS:

- a) Remove the VASCULAR CYLINDER from your lengthwise section.
Sometimes it helps to twist it to loosen it.
- b) Show the SECONDARY ROOTS to your teacher.



Have Checked: 5 points *That's all Folks!*

For now.....