

Leaves – (205-229)

Key Vocabulary	Assignments
<p>Abaxial Epidermis Abscission Zone Adaxial Epidermis Blade Boundary Layer Bundle Sheath Compound Leaf Cuticle Deciduous Guard Cells Leaf Margin Mesophyll Netted Venation Palisade Parenchyma Palmately Compound Parallel Venation Petiole Phyllotaxis Pinnately Compound Simple Leaf Spines Spongy Mesophyll Stoma Tendrils Transpiration Vein</p>	<ol style="list-style-type: none"> 1. What is the meaning of the slightly disturbing quote “all flesh is grass”? What does that statement have to do with all this nonsense about most of the human body having passed through stomata? 2. Read 206-208 then answer the following questions: <ol style="list-style-type: none"> a. What is the function of the leaf? b. What is the deal with phyllotaxis? c. What is the difference between simple and compound leaves? 3. Read 209-213 (stop at the top) then answer the following questions: <ol style="list-style-type: none"> a. What is the roll of guard cells in transpiration? b. How is the mesophyll organized to promote gas exchange in the leaf? c. Would it be an evolutionary advantage for a leaf to have secondary growth like stems? Explain why or why not. 4. Read 213-216 then do you best to accomplish the following: <ol style="list-style-type: none"> a. Create a table that lists the environmental factors that affect transpiration and the adaptations plants have to reduce it. b. Explain the statement “there is a selective advantage for a leaf to remain attached to a tree at least long enough to produce more sugar than was used to construct itself.” 5. Start on 221 and read to 225 <ol style="list-style-type: none"> a. Some plants do not form leaves until they are exposed to sunlight. How does this adaptation provide an advantage to plants? b. Since carnivorous plants do not derive energy from the insects that they digest where do they get their energy from? <p>The following are optional assignments... you need only do them if you seek enlightenment or the extra points to help out your stems quiz.</p> <p>OA1. 20 points Trace the path of water from the soil through the plant and to the atmosphere. (you will need to include the water cycle, the layers of the root, the conducting tissues of the stem and the layers of the leaf)</p> <p>OA2. 20 points Use a computer to create a study guide that provides diagrams and definitions for the key vocabulary terms to the left. Your guide cannot exceed 4 single standard sized pages. Your study guide should be visually interesting and accurate with a compact and easy to use format. You must email me the completed file (or bring it to me on your removable media of choice)</p>