



Master Gardener Level 1 Plant Growth and Development

1. Define differentiation in plant cells.
2. What are the two tissues of plants discussed in class and what are their functions? If a nutrient is taken in by a root, which tissue does it travel through?
3. A tiny opening on a leaf is called a stomate. The plural of stomate is _____. What are their functions?
4. What is the function of vascular cambium? Where is it located?
5. What are the five vegetative organs discussed in class? What is the importance of plant propagation using these plant organs? Would it be sexual or asexual reproduction?
6. Can a modified stem be under the soil? Name some modified stems and some common plants associated with them.
7. Familiarize yourself with leaf arrangements, shapes, and margins. Find several leaves (may have to be houseplants) and describe their characteristics.
8. What is the definition of a bud? How would you tell how much a tree grew last year?

9. Be able to label the different parts of a flower. Pick your favorite flower and describe what type of inflorescence it has.

10. Describe photosynthesis. What is the difference between it and respiration?

11. What is transpiration? What has to happen for water to be drawn up from the roots to the whole plant?

12. How would you explain to your friends how to properly water their trees throughout the year?

13. What colors of light do plants absorb. Which ones do they reflect? When there is a lack of light, plants are etiolated. Describe what an etiolated plant might look like.

14. What causes the leaves in the fall to turn color? What causes spring flowering plants to flower?

15. Which USDA hardiness zone do you live in? Does that mean that all plants in that hardiness zone will survive in your location? Explain

16. At what temperature do plants to grow best? Here's a question for you to think about for next lecture.... Why would I recommend transplanting cucumbers much later in the season than, let's say, lettuce? (you might have to dig for this one....)

17. What causes winter desiccation? Name several ways you can prevent it.