Botany Basics – Stems Notesheet C. Kohn, Waterford WI

Name: Hour Date:

Date Assignment is due: *upon finishing PPT* Why late?   
 Day of Week Date If your project was late, describe why

1. What are the two main functions of stems for a plant?   
     
   1.   
     
   2.
2. Define the following:  
     
   Shoot:   
     
   Twig:   
     
   Branch:   
     
   Trunk:
3. List and describe the three main components of stem vasculature:
4. Which of these three types of vascular tissue is the growing part of the stem? How do you know?
5. If you are grafting a branch onto a tree, why would you have to know how to identify the xylem, phloem, and cambium?
6. Why would injury to the cambium result in tree death or at least impaired growth?
7. How do monocots differ from dicots in terms of stem vasculature?
8. Why is it necessary for a gardener to know this difference?
9. A node is
10. Nodes are sites of great where small buds   
      
    develop into
11. Why is it necessary to determine the location of a plant’s nodes when pruning?
12. An internode is
13. Internodal length an easy visible indicator of a plant’s
14. List and describe factors that affect a plant’s internode length:  
      
    1   
      
    2   
      
    3   
      
    4   
      
    5   
      
    6
15. What must a stem have in order to be classified as ‘stem tissue’?
16. How would you know if an underground stem was not a root?
17. Define the following:  
      
    Crown:   
      
    Spur:   
      
    Stolon:
18. What makes a potato tuber a stem and not a root?
19. What is a rhizome?
20. Why would a rhizome make an invasive weed much harder to fight?
21. A bulb is
22. Sugar from the phloem is stored in a bulb’s
23. How do you know if a bulbous plant is fully stocked for next year’s flowering?
24. Describe the differences between the two types of bulbs:
25. What is a corm?
26. How does a corm differ from a bulb?
27. What is a tuberous stem?
28. Explain how you could use stem propogation to make new plants from corms (such as gladiolas):
29. List 5 examples of stems as food: