

## Plant Structure/Growth Vocab

|                         |   |
|-------------------------|---|
| 1. Apical bud           | A. meristem cells that replace the epidermis with the thicker, tougher periderm   |
| 2. Axillary bud         | B. growing the plant in length  |
| 3. Primary growth       | C. cells with thick secondary cell walls and are used for support in nutshells    |
| 4. Secondary growth     | D. cell with unevenly thick primary cell walls; used for support in young plants  |
| 5. Cork cambium         | E. the shoot tip; terminal bud  |
| 6. Vascular cambium     | F. non-conducting cells of the phloem   |
| 7. Root cap             | G. outer most cell layer of the vascular cylinder; where lateral roots grow from  |
| 8. Xylem                | H. innermost layer of the cortex  |
| 9. Tracheids            | I. waxy coating on the epidermal surface to prevent water loss                    |
| 10. Vessel elements     | J. cells that regulate the opening and closing of the stomata                     |
| 11. Phloem              | K. consists of layers of elongated parenchyma cells in the upper part of the leaf |
| 12. Sieve-tube elements | L. group of cells that surround the veins in a leaf                               |
| 13. Companion cells     | M. vascular tissue that transports water and minerals                             |
| 14. Sieve plates        | N. ground tissue of a leaf  |
| 15. Epidermis           | O. growing the plant in thickness   |
| 16. Cuticle             | P. type of vascular tissue that transports sugar throughout the plant             |
| 17. Cortex              | Q. cells that have thin primary cell walls and are used for photosynthesis        |
| 18. Endodermis          | R. outer layer of tightly packed cells; dermal tissue                             |
| 19. Stele               | S. bud on a stem that can form a lateral shoot                                    |
| 20. Pericycle           | T. ground tissue that is external to the vascular tissue                          |
| 21. Periderm            | U. protective outer tissues in woody plants                                       |
| 22. Parenchyma cell     | V. tip of the root that protects the apical meristem as the root grows            |
| 23. Collenchyma cell    | W. meristem that adds layers of vascular tissue                                   |
| 24. Sclerenchyma cell   | X. the end walls between sieve-tube elements                                      |
| 25. Mesophyll           | Y. pore in the leaf that allows gas exchange                                      |
| 26. Palisade mesophyll  | Z. wider, shorter xylem cells   |
| 27. Spongy mesophyll    | AA. collective term for the vascular tissue in a root or stem                     |
| 28. Guard cell          | BB. main cells that function in sugar transport in phloem                         |
| 29. Stomata             | CC. loosely arranged parenchyma cells in a leaf that creates air circulation      |
| 30. Bundle sheath       | DD. long, thin xylem cells with tapered ends                                      |

## Plant Structure/Growth Vocab Key

|           |                         |   |
|-----------|-------------------------|---|
| <b>E</b>  | 1. Apical bud           | A. meristem cells that replace the epidermis with the thicker, tougher periderm   |
| <b>S</b>  | 2. Axillary bud         | B. growing the plant in length  |
| <b>B</b>  | 3. Primary growth       | C. cells with thick secondary cell walls and are used for support in nutshells    |
| <b>O</b>  | 4. Secondary growth     | D. cell with unevenly thick primary cell walls; used for support in young plants  |
| <b>A</b>  | 5. Cork cambium         | E. the shoot tip; terminal bud  |
| <b>W</b>  | 6. Vascular cambium     | F. non-conducting cells of the phloem   |
| <b>V</b>  | 7. Root cap             | G. outer most cell layer of the vascular cylinder; where lateral roots grow from  |
| <b>M</b>  | 8. Xylem                | H. innermost layer of the cortex  |
| <b>DD</b> | 9. Tracheids            | I. waxy coating on the epidermal surface to prevent water loss                    |
| <b>Z</b>  | 10. Vessel elements     | J. cells that regulate the opening and closing of the stomata                     |
| <b>P</b>  | 11. Phloem              | K. consists of layers of elongated parenchyma cells in the upper part of the leaf |
| <b>BB</b> | 12. Sieve-tube elements | L. group of cells that surround the veins in a leaf                               |
| <b>F</b>  | 13. Companion cells     | M. U vascular tissue that transports water and minerals                           |
| <b>X</b>  | 14. Sieve plates        | N. ground tissue of a leaf  |
| <b>R</b>  | 15. Epidermis           | O. growing the plant in thickness   |
| <b>I</b>  | 16. Cuticle             | P. type of vascular tissue that transports sugar throughout the plant             |
| <b>T</b>  | 17. Cortex              | Q. cells that have thin primary cell walls and are used for photosynthesis        |
| <b>H</b>  | 18. Endodermis          | R. outer layer of tightly packed cells; dermal tissue                             |
| <b>AA</b> | 19. Stele               | S. bud on a stem that can form a lateral shoot                                    |
| <b>G</b>  | 20. Pericycle           | T. ground tissue that is external to the vascular tissue                          |
| <b>U</b>  | 21. Periderm            | U. protective outer tissues in woody plants                                       |
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| <b>N</b>  | 25. Mesophyll           | Y. pore in the leaf that allows gas exchange                                      |
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| <b>Y</b>  | 29. Stomata             | CC. loosely arranged parenchyma cells in a leaf that creates air circulation      |
| <b>L</b>  | 30. Bundle sheath       | DD. long, thin xylem cells with tapered ends                                      |