

Name: \_\_\_\_\_ Date: \_\_\_\_\_

# Soil Formation & Evaluation

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| 1. process of converting light energy to chemical energy and storing it in the bonds of sugar  | A. Hydraulic Conductivity   |
| 2. process by which organisms oxidize sugars and derive energy in the form of ATP from the molecular bonds which are broken  | B. Water-Holding Capacity   |
| 3. exchange of soil and atmospheric air to maintain oxygen for plant roots   | C. Respiration              |
| 4. substance comprised of decomposed plant and animal residues, microorganisms and partially decayed plant material and microbes which provides structure, greater water holding capacity, diversity and greater nutrient availability to soil | D. Aggregate                |
| 5. rate at which water and air move into and through the soil is affected by the amount, size and arrangement of soil pores  | E. Bulk Density             |
| 6. void spaces in soil, known as pores, which can be filled with air or water  | F. Soil Productivity        |
| 7. amount of water a soil can hold for plant use   | G. Buffer Capacity          |
| 8. groups of soil particles which bind to each other more strongly than adjacent particles   | H. Soil pH                  |
| 9. dry weight of soil per unit volume of soil; indicates the degree of structure or compaction present in the soil   | I. Photosynthesis           |
| 10. measure of the acidity or alkalinity of a soil   | J. Gravitational Water      |
| 11. quantity and availability of soluble salts in soil   | K. Soil Aeration            |
| 12. measure of how well a solution accommodates the transport of an electric charge  | L. Field Capacity           |
| 13. measure of the quantity of cations which can be absorbed and held by a soil  | M. Capillary Water          |
| 14. ability of a solution to resist changes in pH  | N. Porosity                 |
| 15. water which moves through soil due to the force of gravity and is found in macropores  | O. Cation Exchange Capacity |
| 16. water which is held in soil against the pull of gravity, yet can be removed by plant uptake or air drying  | P. Organic Matter           |

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| 17. thin film of water which surrounds soil particles and is bound so tightly by forces of adhesion it cannot easily be removed by plant roots       | Q. Weathering                   |
| 18. maximum amount of water a soil can hold against the pull of gravity  | R. Soil Fertility               |
| 19. soil moisture content at which plants can no longer obtain enough moisture to meet transpiration requirements, causing the plant to wilt and die | S. Permanent Wilting Point      |
| 20. quantitative measure of how easily water flows through soil  | T. Permeability                 |
| 21. process by which water is absorbed into the soil from the ground surface   | U. Soil Salinity                |
| 22. movement of water through soil   | V. Electrical Conductivity (EC) |
| 23. level below which the ground is saturated with water   | W. Infiltration                 |
| 24. mechanical or chemical breaking down of rocks  | X. Water Table                  |
| 25. quality of soil and its ability to sustain plant life and provide adequate nutrients   | Y. Percolation                  |
| 26. performance in total of a soil based on its physical, chemical and biological attributes   | Z. Hygroscopic Water            |