

**BIO 1500**  
**Lecture 7 - Plant Transport**  
**Study Guide**

1. What is transpiration?
2. Differentiate between active and passive transport.
3. What is the difference between simple diffusion and facilitated diffusion?
4. What is osmosis?
5. What is water potential?
6. Explain how to predict the direction of movement of water based on water potential?
7. What is plasmolysis?
8. What does it mean when a cell is turgid?
9. What is turgor pressure?
10. What types of transport do root hairs use to absorb water and minerals?
11. What are the three transport routes used by plants?
12. What is root pressure?
13. What is guttation?
14. What is the difference between cohesion vs. adhesion?
15. What is cavitation? How it can be fixed?
16. Explain the process by which guard cells regulate the opening and closing of stomata.
17. Describe how different environmental factors affect transpiration rate.
18. Be able to list several drought adaptations in plants.
19. Be able to list ways in which a plant may deal with flooding and high salinity.
20. What is translocation?
21. Describe the pressure-flow theory of sugar movement in phloem, including the activities at the source and sink.