AP Biology
Pre-lab Questions
Photosynthesis in Leaf Disks

1. What do plants use to capture the light energy from the sun? _____
2. Explain the process of photosynthesis. _____
   _____
   _____
3. What do living organisms need in order to grow and reproduce? _____
   _____
4. How do autotrophs obtain their "free energy"? _____
   _____
5. How do heterotrophs obtain their "free energy"? _____
   _____
6. Where does photosynthesis occur in the plant? _____
7. Write the overall process of photosynthesis below:

8. Describe two ways that the net rate of photosynthesis can be determined.
   a. _____
   b. _____
9. Why is measuring the rate of oxygen production difficult? _____
   _____
   _____
10. Write the overall process of cellular respiration below:

11. How will we indirectly determine the rate of photosynthesis to the rate of cellular respiration in this lab? _____
    _____
12. Why are the disks of leaf tissue vacuum-infiltrated? _____
    _____
13. What will happen if the rate of photosynthesis exceeds the rate of respiration? _____
    _____
14. What will happen if the rate of respiration exceeds the rate of photosynthesis? _____
    _____

****Answer the prelab questions from the lab paper, page 2 (#1-4)