

Name _____ Block _____ Date _____

Test 4 Study Guide (Part 1): Photosynthesis and Respiration (25 pts)

1. Write the chemical equation for photosynthesis. Label the reactants and products.

2. Describe or define each of the following terms:

- Chloroplast _____
- Chlorophyll _____

3. Write the chemical equation for aerobic cellular respiration. Label the reactants and products.

4. Complete the chart below:

Description	Aerobic or anaerobic	ATP Production (less or more)	Examples
Respiration that requires oxygen			N/A
Respiration that does not require oxygen			

5. Describe the role of ATP in the cell: _____

6. Complete the chart below:

Description	Process (Photosynthesis or Respiration)	Reactants (2)	Products (2-3)	Organelle (Mitochondria or chloroplast)	Type of organism (autotroph or heterotroph)
Convert light energy to food					
Convert food (glucose) to ATP					

7. Describe two ways that heterotrophs (such as animals and fungi) rely on autotrophs (like plants) for survival.

I. _____

II. _____

8. Complete the following table:

Process	Causes oxygen levels to increase or decrease?	Causes carbon dioxide levels to increase or decrease?
Photosynthesis		
Respiration		

9. Describe the function of photosynthesis, including what it does and what kinds of organisms can do it (hint: there are 3).

10. Describe the function of cellular respiration, including what it does and what kinds of organisms can do it.

11. Explain why animals rely on plants, but plants do not rely on animals.

12. Define the following terms:

- Autotroph
- Photoautotroph
- Heterotroph

13. Complete the diagram below by filling in the boxes:

