

Name \_\_\_\_\_ Block \_\_\_\_\_ Date \_\_\_\_\_

### Test 4 Study Guide: Photosynthesis and Respiration

1. Write the chemical equation for photosynthesis.

2. Describe or define each of the following terms:

- Chloroplast \_\_\_\_\_
- Chlorophyll \_\_\_\_\_

3. Write the chemical equation for aerobic cellular respiration.

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	Reactants	Products	Organelle	Type of organism
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...	Causes carbon dioxide levels to...
Photosynthesis		
Respiration		

9. Describe the process of chemosynthesis, including what it does and what kinds of organisms can do it.
  
10. Describe the function of photosynthesis, including what it does and what kinds of organisms can do it (hint: there are 3).
  
11. Describe the function of cellular respiration, including what it does and what kinds of organisms can do it.
  
12. Explain why plants do not rely on animals like animals rely on plants.

13. Define the following terms:

- Autotroph
- Photoautotroph
- Chemoautotroph
- Heterotroph

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

