

**Chapter 8 Directed Reading**

*Write your answers neatly and legibly.*

Use the back and/or additional paper to record your answers.

1. List at least 3 characteristics of autotrophs.
2. Give examples of autotrophs.
3. List at 3 characteristics of heterotrophs.
4. Give examples of heterotrophs.
5. What are the different forms of energy?
6. What do living things use for energy (fuel)?
7. Describe the chemical compound adenosine triphosphate (ATP)
8. How does it store energy?
9. How does it release energy?
10. What is photosynthesis?
11. In your own words, describe Van Helmont's experiment.
12. In your own words, describe Priestley's experiment.
13. In your own words, describe Ingenhousz's experiment.
14. What are the end products of photosynthesis?
15. What type is the pigment involved in photosynthesis?
16. Describe a thylakoid. What is its role in photosynthesis?
17. What process takes place in the stroma?
18. What are electron carriers?
19. Name some electron carriers involved in photosynthesis.
20. What is required in light-dependent reactions?
21. What compounds are used in light-dependent reactions?
22. What compounds are produced in light-dependent reactions?
23. What energy source fuels the beginning of the Calvin cycle?
24. How many sugar molecules are produced for every 6 carbon dioxide molecules during the Calvin cycle?
25. What are the factors that affect photosynthesis?