Name _____ Date _____ Period _____

Chapters 1 & 2 Review

B I O L O G Y

Directions: Answer the following questions using your lecture notes and textbook for Chapters 1 and 2.

1. What is the smallest unit of **matter**?

2. What **characteristics** do all living things share?

3. What is **homeostasis**?

4. What are the advantages of using **computer models** in biological research?

5. What is a **hypothesis**?

6. What is a **theory**?

7. What is the definition of a **species**?

8. What are the four main types of **carbon-based** compounds found in living things?

9. What is an **ion**?

10. What unique quality does **carbon** posses that allows it to form large organic compounds?

11. What are the steps in the **Scientific Method**?

12. What is a **controlled experiment**?

13. What aspect of a chemical reaction is affected by **enzymes**?

14. What is the name given for **genetic changes** in living things over time?

15. How does a **catalyst** speed up a chemical reaction?

16. What is the **pH** of an **acid**, a **base**, and a **neutral** solution?

17. During an **experiment**, which factors are **observed and measured**?

18. What is the difference between a **covalent** and **ionic** bond?

19. Complete the table below:

Organic Compound	Monomer	Polymer
Carbohydrate		
Lipid		
Protein		
Nucleic Acid		

20. What is **biodiversity**?

21. What is the **negative feedback** process?

22. What are the three particles found in an **atom**, and where are they found in the atom?

23. Identify the **reactants** and **products** in the chemical reaction below

$$6CO_2 + 6H_2O \rightarrow C_6H_{12}O_6 + 6O_2$$

24. What is a **monosaccharide** and a **polysaccharide**?

25. When enough experimental data supports a hypothesis, the **hypothesis** becomes a(an)?