

Name _____ Date _____ Period _____

Chapter 2 Concept Review

B I O L O G Y

Directions: Answer the following questions using your notes and textbook (pages 96-125)

1. Living things consist of atoms of different _____.
2. An _____ is the smallest basic unit of matter.
3. An atom has a _____ and electrons. The nucleus has _____ and _____.
4. A _____ is made of atoms of different elements bonded together.
5. _____ form when atoms gain or lose electrons.
6. _____ bonds form between oppositely charged ions.
7. Atoms share pairs of electrons in _____ bonds.
8. A _____ is two or more atoms held together by covalent bonds.
9. _____ bonds form between slightly positive hydrogen atoms and slightly negative atoms.
10. Hydrogen bonds are responsible for three important properties of _____.
 - a. High specific _____
 - b. _____
 - c. _____
11. A solution is formed when one substance _____ in another.
12. An _____ releases a hydrogen ion when it dissolves in water.
13. A _____ removes hydrogen ions from a solution.
14. A neutral solution has a pH of _____.
15. _____ are made of carbon, hydrogen, and oxygen.

16. Carbohydrates can be broken down to provide _____ for cells.
17. _____ are nonpolar molecules that include fats, oils, and cholesterol.
18. Lipids have several different functions
- a. Broken down as a source of _____
 - b. Make up cell _____
 - c. Used to make _____
19. _____ are polymers of amino acid monomers.
20. _____ different amino acids are used to build proteins in organisms.
21. Proteins differ in the _____ and _____ of amino acids.
22. Nucleic acids are polymers of monomers called _____.
23. Nucleotides are made of _____, _____ group, and a nitrogen _____.
24. Bond energy is the amount of energy that breaks a _____.
- a. Energy is _____ To break bonds
 - b. Energy is _____ when bonds form
25. A reaction is at _____ when reactants and products form at the same rate.
26. _____ energy is the amount of energy that needs to be absorbed to start a chemical reaction.
27. Catalysts are substances that _____ up chemical reactions
- a. _____ activation energy
 - b. _____ reaction rate
28. Enzymes are _____ in living things.
29. Disruptions in _____ can prevent enzymes from functioning.
30. An enzyme's _____ allows only certain reactants to bind to the enzyme.