

Chapter 2: The Chemistry of Life – Reading Assignment

Biology A

2. What subatomic particles made up atoms?

3. How is an element different from a compound?

4. What are the 2 main types of chemical bonds?

2.2: Properties of Water

5. Define the following terms:

- a. Hydrogen bond

- b. Cohesion

- c. Adhesion

- d. Mixture

- e. Solution

- f. Solute

- g. Solvent

- h. Suspension

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- i. pH scale

 - j. acid

 - k. base

 - l. buffer
6. What accounts for many of water's special properties?
7. Water's polarity gives it what ability?
8. How are buffers related to homeostasis?

2.3: Carbon Compounds

9. Define the following terms:
- a. monomer

 - b. polymer

 - c. carbohydrate

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- d. lipid

 - e. nucleotide

 - f. protein

 - g. amino acid
10. Why is carbon able to form compounds with many different chemical properties?
11. How do organisms use carbohydrates?
12. How can organisms use lipids?
13. What is the function of nucleic acids in organisms?
14. List some functions of proteins in organisms.

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2.4: Chemical Reactions and Enzymes

15. Define the following terms:

a. chemical reaction

b. reactant

c. product

d. activation energy

e. catalyst

f. enzyme

g. substrate

16. How are chemical reactions related to chemical bonds?

17. What is the role of enzymes?