

Chapter 2 The Chemistry of Life

Chapter Vocabulary Review

Completion *On the lines provided, complete the following sentences.*

1. Protons and neutrons together form the _____, which is at the center of the atom.
2. A pure substance that consists entirely of one type of atom is called a(an) _____.
3. A chemical _____ is a substance formed by the combination of two or more elements in definite proportions.
4. The two main types of chemical bonds are _____ and _____.
5. The slight attractions that develop between the oppositely charged regions of nearby molecules are called _____.

Short Answer *On the lines provided, answer the following questions.*

6. How do a sodium atom and a sodium ion differ?

7. How do cohesion and adhesion differ?

8. In a salt solution, why is water the solvent and salt the solute?

9. How do acids and bases differ?

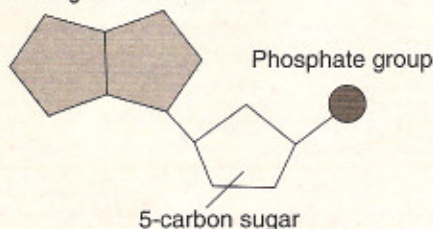
10. Describe the roles of a catalyst and a substrate in a chemical reaction.

Matching On the lines provided, write the letter of the definition that best matches each term.

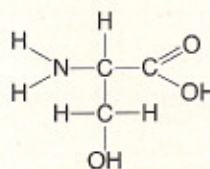
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|-----------------------------|---|
| _____ 11. polymer | a. atoms of the same element that differ in the number of neutrons |
| _____ 12. amino acid | b. dissolved compound that prevents sharp swings in pH |
| _____ 13. monosaccharide | c. large compound formed by the joining of small compounds, called monomers |
| _____ 14. isotopes | d. catalyst that speeds up chemical reactions in cells |
| _____ 15. buffer | e. monomer of a protein |
| _____ 16. nucleic acid | f. process that produces a new set of chemicals |
| _____ 17. enzyme | g. single sugar molecule |
| _____ 18. chemical reaction | h. stores and transmits genetic information |
| _____ 19. lipid | i. used to store energy |

Labeling Diagrams For questions 20 and 21, identify the diagram as one of the following: nucleotide, amino acid, or lipid. Place your answer on the lines provided below each diagram.

20. Nitrogenous base

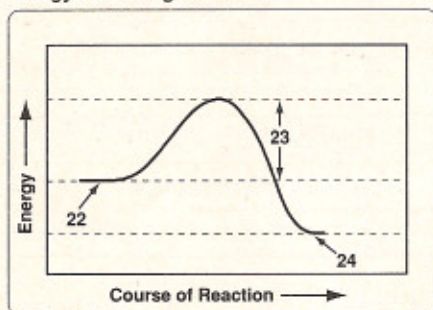


21.



Labeling Diagrams On the lines provided, label the parts of the reaction as one of the following: products, reactants, or activation energy.

Energy-Releasing Reaction



22. _____

23. _____

24. _____