

**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 positive sodium ion differ?

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7. How do cohesion and adhesion differ?

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

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9. How do acids and bases differ?

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

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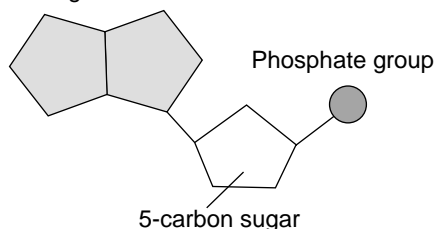
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**Matching** On the lines provided, write the letter of the definition that best matches each term.

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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. part of waterproof coverings   |

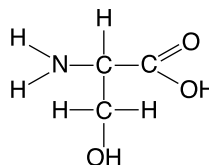
**Labeling Diagrams** For questions 20 and 21, identify the diagram as one of the following: nucleotide, amino acid, or lipid. Place your answer on the lines provided below each diagram.

20. Nitrogenous base



\_\_\_\_\_

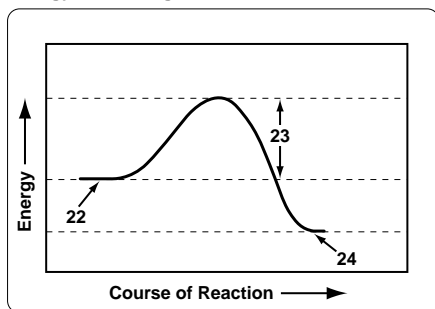
21.



\_\_\_\_\_

**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. \_\_\_\_\_