Name Period Date

SECTION 2.3

CARBON-BASED MOLECULES

Study Guide

KEY CONCEPT

Carbon-based molecules are the foundation of life.

VOCABULARY		
monomer	lipid	amino acid
polymer	fatty acid	nucleic acid
carbohydrate	protein	

MAIN IDEA: Carbon atoms have unique bonding properties.

1. Why is carbon often called the building block of life?

2. What ability allows carbon atoms to form a large number of molecules?

3. In the space below, sketch the three basic structures of carbon-based molecules: straight chain, branched chain, and ring.

STUDY GUIDE, CONTINUED

MAIN IDEA: Four main types of carbon-based molecules are found in living things.
Complete the table with functions and examples of each type of carbon-based molecule.

Molecule Type	Functions	Examples
Carbohydrate	**4.**	**5.**
Lipid	**6.**	**7.**
Protein	**8.**	**9.**
Nucleic acid	**10.**	**11.**

12. What determines a protein's structure and function?

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13. What are nucleic acids made of?

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Vocabulary Check

14. The prefix *mono-* means "one," and the prefix *poly-* means "many." How are these meanings related to the terms *monomer* and *polymer*?

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