



Name

Period

Date

SECTION  
**2.3**

CARBON-BASED MOLECULES  
**Reinforcement**

**KEY CONCEPT** Carbon-based molecules are the foundation of life.

Carbon atoms are the basis of most molecules that make up living things. Many carbon-based molecules are large molecules called polymers that are made of many smaller, repeating molecules called monomers. There are four main types of carbon-based molecules in living things.

- **Carbohydrates** include sugars and starches, and are often broken down as a source of chemical energy for cells. Some carbohydrates are part of cell structure, such as cellulose, which makes up plant cell walls.
- **Lipids** include fats and oils and, like carbohydrates, are often broken down as a source of chemical energy for cells. One type of lipid, called a phospholipid, makes up most of all cell membranes.
- **Proteins** have a large number of structures and functions. Some proteins are needed for muscle movement; another protein, called hemoglobin, transports oxygen in blood. Another type of proteins, called enzymes, speed up chemical reactions in cells.
- **Nucleic acids** are molecules that store genetic information and build proteins. DNA stores genetic information in cells, and RNA helps to build the proteins for which DNA codes.

**CHAPTER 2**  
Chemistry of Life

Type of Molecule	Functions	Example
Carbohydrate	<b>1.</b>	<b>2.</b>
Lipid	<b>3.</b>	<b>4.</b>
Protein	<b>5.</b>	<b>6.</b>
Nucleic acid	<b>7.</b>	<b>8.</b>

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