Name Period Date

SECTION 32.1 | NUTRIENTS AND HOMEOSTASIS

# Reinforcement

**KEY CONCEPT** Cells require many different nutrients.

Human beings need to eat six types of nutrients to maintain good health. If any one of these nutrients is missing for too long, the body's cells stop working properly.

- Water—As a natural solvent, water is involved in nearly every chemical reaction in the cells. It helps digest food and eliminate wastes, maintains blood volume, regulates body temperature, and keeps the skin moist.
- Carbohydrates—Simple and complex carbohydrates are the main source of energy for the body. Dietary fiber from carbohydrates helps move food through the digestive system.
- Proteins—Proteins are used for growth and repair and for building enzymes and hormones vital to cell metabolism. The eight essential amino acids must come from animal products or a combination of plant foods.
- Fats—Saturated and unsaturated fats provide energy and key components in cell membranes, myelin sheaths for neurons, and certain hormones. Essential fatty acids must come from foods.
- Minerals—**Minerals** are inorganic materials the body uses to carry out processes in cells and to build or repair tissues.
- Vitamins—Fat-soluble and water-soluble **vitamins** work with enzymes to regulate cell functions, growth, and development. Water-soluble vitamins cannot be stored in the body and must be replaced by foods eaten.

Energy in food is measured in Calories. Most Calories should come from whole foods rather than from highly processed or high-sugar foods. Information on a food label about Calories, fats, protein, vitamins, and minerals can help people make good choices. A balanced diet and a balance between food consumed and physical activity are important throughout life.

**1.** List two reasons why you should eat a diet that contains all six nutrients.

_____

_____

**2.** How can you obtain all of the essential amino and fatty acids that your body needs?

_____

_____

**3.** Why should most of your Calories come from whole foods such a fruits, grains, and vegetables?

_____

_____