SECTION

ENERGY IN ECOSYSTEMS

13.3 Study Guide

KEY CONCEPT

Life in an ecosystem requires a source of energy.

| VOCABULARY | |
|------------|----------------|
| producer | heterotroph |
| autotroph | chemosynthesis |
| consumer | |

MAIN IDEA: Producers provide energy for other organisms in an ecosystem.

Complete the following sentences with the correct term.

| | utotrophs | eating heterotrophs | nonliving producers | |
|----|---|---|---------------------|--|
| 1. | | are organisms that get their energy from make their own food. These organisms are als | | |
| 2. | | are organisms that get their energy by | | |
| 3. | These organisms are also called 3. Why are producers so important to an ecosystem? | | | |
| | | | | |
| 4. | Why is the Su | an important to both producers and consumers? | ? | |
| | | | | |

Section 13.3 STUDY GUIDE CONTINUED

MAIN IDEA: Almost all producers obtain energy from sunlight.

5. Complete the following Y-diagram to outline the similarities and differences between photosynthesis and chemosynthesis.

| Photosynthesis | | Chemosynthesis |
|----------------|------|----------------|
| | | |
| | | |
| | Both | |
| | | |
| | | |
| | | |

| Voc | abu | lary | Check |
|-----|-----|--------|-------|
| 6. | Wor | d Part | |

| Word Part | Meaning |
|-----------|-------------|
| auto- | self |
| hetero- | other |
| -troph | nourishment |

Use the above word origins to explain the difference between an autotroph and a heterotroph.

- **7.** The prefix *photo-* means "light" while the prefix *chemo-* means "chemical." How do these word origins relate to the difference between photosynthesis and chemosynthesis?
- **8.** What is the difference between a consumer and a producer?

Copyright © McDougal Littell/Houghton Mifflin Company.