

**Photosynthesis**

During photosynthesis, producers take in carbon dioxide (CO<sub>2</sub>) from the atmosphere. Carbon atoms are transferred to carbohydrates.

**Respiration**

During respiration, aerobic organisms break down carbohydrates. They release carbon dioxide (CO<sub>2</sub>) into the atmosphere and provide energy.

**Decay**

During cellular respiration, decomposers break down, or decay, plant and animal materials. Carbon dioxide (CO<sub>2</sub>) is released into the atmosphere.

**Combustion**

During the combustion of fossil fuels — which are also called *hydrocarbons* — carbon dioxide (CO<sub>2</sub>) is released into the atmosphere.

**Key Terms/Phrases:**

Use the following terms and phrases to fill in the blanks in the above diagram. Some terms/phrases may be used more than once.

- CO<sub>2</sub>
- O<sub>2</sub>
- CO<sub>2</sub> and O<sub>2</sub> in the atmosphere
- photosynthesis

- cellular respiration
- primary consumers
- decomposers
- dead organisms and wastes

DATE:

NAME:

CLASS:

**CHAPTER 2**  
**REINFORCEMENT**

**BLM 2-8**

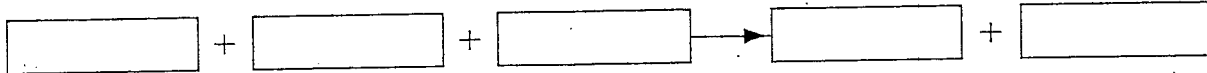
# Follow That Carbon Molecule

**Goal** • Review the movement of carbon within the nutrient cycle.

### What to Do

Answer each question in the space provided. If you need help, refer to pages 46 to 50 of your textbook.

1. Fill in each box to write the equation for photosynthesis.



2. In what kind of organism does photosynthesis occur?

\_\_\_\_\_

3. (a) In photosynthesis, what are the reactants?

\_\_\_\_\_

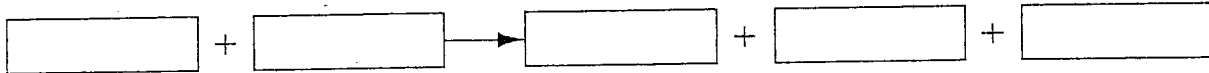
- (b) What are the products?

\_\_\_\_\_

4. What is the origin of the energy needed to drive photosynthesis?

\_\_\_\_\_

5. Fill in each box to write the equation for respiration.



6. Where does respiration occur?

\_\_\_\_\_

7. Complete the diagram at the right to show the relationship between photosynthesis and respiration as a cycle. You may draw sketches to illustrate stages of this cycle. Give your diagram a title.

