

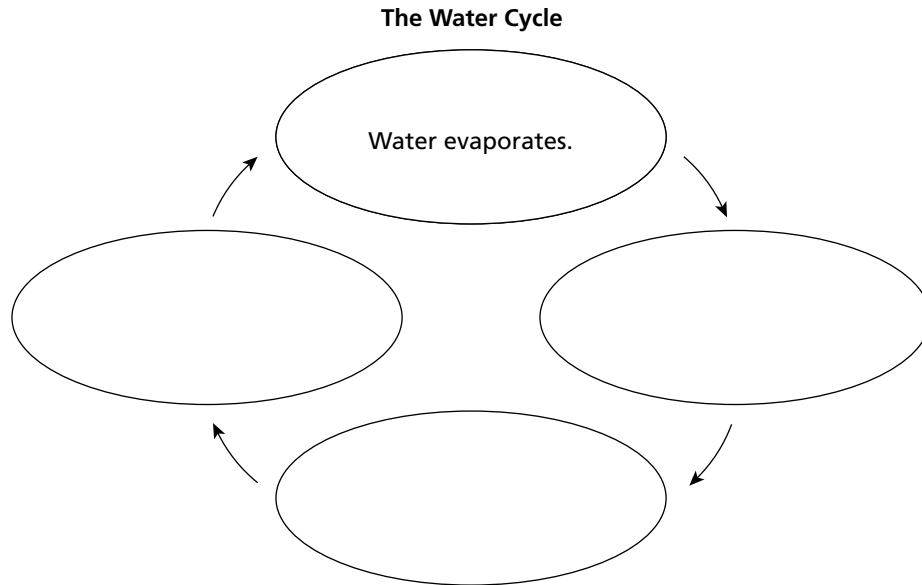
**Ecosystems and Biomes** ▪ *Guided Reading and Study*

## Cycles of Matter

*This section describes three cycles in nature that recycle matter in ecosystems.*

### Use Target Reading Skills

*As you read, make a cycle diagram that shows the water cycle. Write each event of the water cycle in a separate oval.*



### Introduction

1. Matter is made up of tiny particles called \_\_\_\_\_.  
Combinations of two or more of these tiny particles are called \_\_\_\_\_.
2. Circle the letter of each sentence that is true about matter and energy in ecosystems.
  - a. The supply of matter in an ecosystem is limited.
  - b. Matter is recycled in an ecosystem.
  - c. Energy is recycled in an ecosystem.

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**The Water Cycle**

3. Is the following sentence true or false? Water is essential for life.

\_\_\_\_\_

4. The continuous process by which water moves from Earth's surface to the atmosphere and back is the \_\_\_\_\_.

Match the term with its definition.

<b>Term</b>	<b>Definition</b>
____ 5. evaporation	a. Process by which liquid water changes to water vapor
____ 6. condensation	b. Forms of water that fall from clouds and reach Earth's surface
____ 7. precipitation	c. Process by which water vapor changes to liquid water

8. Is the following sentence true or false? The energy for evaporation comes from the sun. \_\_\_\_\_

9. What process results in the formation of clouds?

\_\_\_\_\_  
\_\_\_\_\_

10. List four forms of precipitation.

a. \_\_\_\_\_ b. \_\_\_\_\_

c. \_\_\_\_\_ d. \_\_\_\_\_



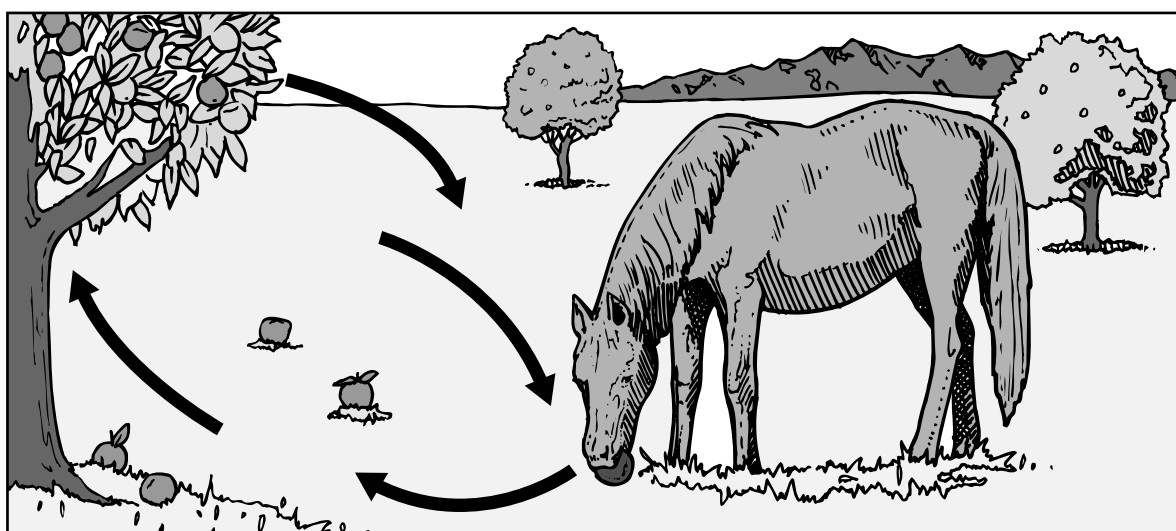
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**Cycles of Matter** *(continued)*

**The Carbon and Oxygen Cycles**

11. Is the following sentence true or false? Carbon is not necessary for life.  
\_\_\_\_\_
12. Circle the letter of each sentence that is true about the carbon and oxygen cycles.
  - a. Producers take in oxygen during photosynthesis.
  - b. Producers release carbon dioxide as a result of photosynthesis.
  - c. Consumers release carbon dioxide as a waste product.
  - d. Consumers take in oxygen for their life processes.
13. Label the arrows to indicate whether they show the movement of oxygen or the movement of carbon dioxide through the ecosystem.



**The Nitrogen Cycle**

14. Is the following sentence true or false? Most organisms use nitrogen directly from the air. \_\_\_\_\_
15. The process of changing free nitrogen gas into a usable form of nitrogen is called \_\_\_\_\_.
16. Is the following sentence true or false? Most nitrogen fixation is performed by plants. \_\_\_\_\_