

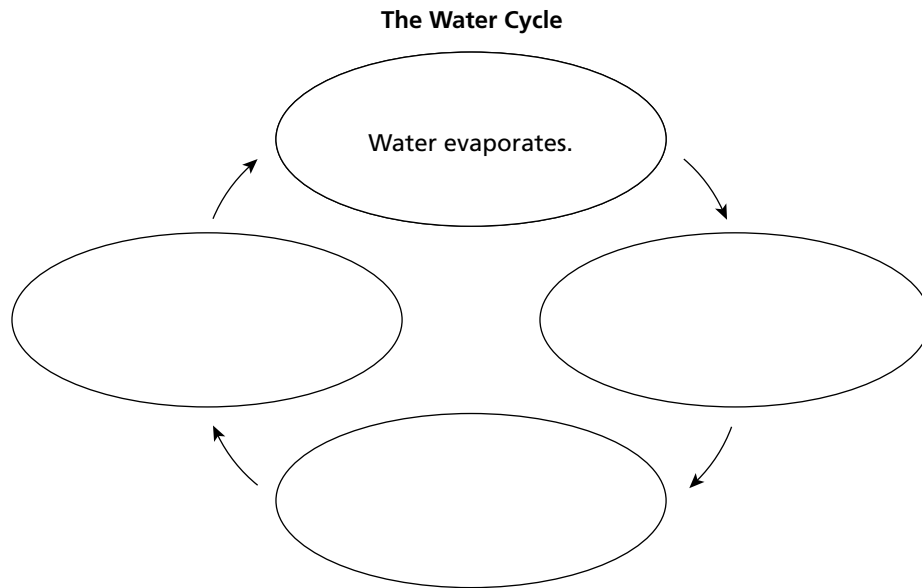
**Ecosystems and Biomes** ▪ *Guided Reading and Study*

## 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.

Term	Definition
_____ 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. \_\_\_\_\_

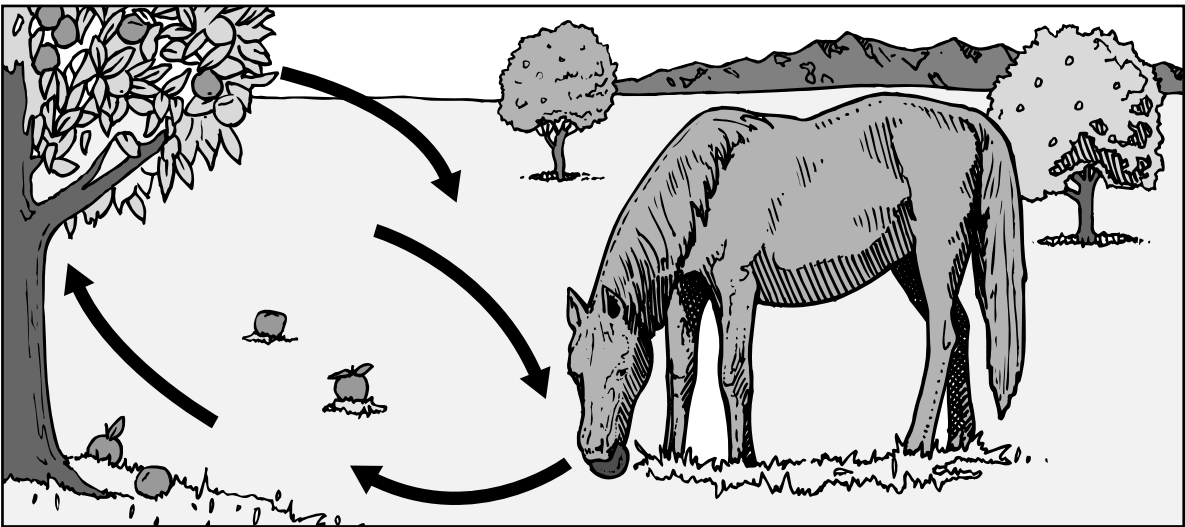
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Cycles of Matter (continued)

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. \_\_\_\_\_