

Name \_\_\_\_\_

Date \_\_\_\_\_

## Homework 3.5 Cycling of Matter

### KEY CONCEPT

Matter cycles in and out of an ecosystem.

### VOCABULARY

hydrologic cycle
biogeochemical cycle
nitrogen fixation

**MAIN IDEA:** Water cycles through the environment.

Fill in the chart with the name of each process that describes how water moves through an ecosystem in the hydrologic cycle.

Process	Description
1. _____	Rain or snow falls to earth.
2. _____	Water vapor rises into the atmosphere.
3. _____	Water vapor released by plants rises into the atmosphere.
4. _____	Water vapor in the atmosphere forms clouds.

**MAIN IDEA:** Elements essential for life also cycle through ecosystems.

**Fill in the blank with the word or phrase that best completes the sentence.**

5. Plants, animals, and most other organisms need oxygen for cellular \_\_\_\_\_.
6. In the oxygen cycle, plants release oxygen as a waste product during the process of \_\_\_\_\_.
7. In the carbon cycle, plants take in \_\_\_\_\_ from the air and convert it into organic material that becomes part of the plant's structure.
8. Carbon enters the atmosphere as carbon dioxide from respiration and from the \_\_\_\_\_ of dead organisms.
9. In the carbon cycle, the burning of fossil fuels releases \_\_\_\_\_ into the atmosphere.
10. In the phosphorous cycle, \_\_\_\_\_ that is released by the weathering of rocks can be taken up by plant roots and enter the food chain.

## **Vocabulary Check**

**Circle the letter of the phrase that best completes the sentence.**

11. The conversion of gaseous nitrogen into ammonia by bacteria is called \_\_\_\_\_.
  - a. photosynthesis
  - b. respiration
  - c. nitrogen fixation
  - d. transpiration
12. The movement of a particular element through the living and nonliving parts of an ecosystem is called a \_\_\_\_\_.
  - a. hydrologic cycle
  - b. phosphorous cycle
  - c. nitrogen cycle
  - d. biogeochemical cycle
13. The water cycle is also called the \_\_\_\_\_.
  - a. hydrologic cycle
  - b. phosphorous cycle
  - c. nitrogen cycle
  - d. biogeochemical cycle