

SECTION

2

Reinforcement

Cycles in Nature



Directions: Match the term in Column II with the description in Column I. Write the letter of the correct term in the blank at the left. All terms may not be used.

Column I

- _____ 1. photosynthesis is part of this continuous movement
- _____ 2. gas removed from the air during photosynthesis
- _____ 3. element that helps plants grow
- _____ 4. process that changes nitrogen gas into compound plants can use
- _____ 5. process of water changing from a gas to a liquid
- _____ 6. transfer of nitrogen from air to soil to organism, and back to air or soil
- _____ 7. process of water changing from a liquid to a gas
- _____ 8. continuous movement of water from Earth's surface to the air, and back to Earth's surface

Column II

- a. nitrogen cycle
- b. evaporation
- c. carbon dioxide
- d. water cycle
- e. respiration
- f. nitrogen
- g. condensation
- h. carbon cycle
- i. transpiration
- j. nitrogen fixation

Directions: Match the cause in the first column with the effect in the second column. Write the letter of the correct effect in the blank at the left. An effect may have more than one cause.

- _____ 9. water vapor condenses
- _____ 10. fossil fuels burn
- _____ 11. forests are cut down
- _____ 12. clouds become large and heavy
- _____ 13. nitrogen removed when harvesting crops
- a. soil infertility
- b. precipitation
- c. increase of carbon dioxide in the air

Directions: Answer the following questions on the lines provided.

14. What are the three primary steps of the water cycle?

15. Explain the importance of nitrogen to living things.

SECTION

3

Reinforcement

Energy Flow

Directions: Complete the following sentences using the terms listed below.

chemosynthesis

producers

energy pyramid

consumers

photosynthesis

food web

- The production of energy-rich food molecules from chemicals is called _____.
- A diagram that shows all the possible feeding, or energy transfer, relationships in a community is called a(n) _____.
- A food chain begins with _____.
- _____ make up the second and higher steps in a food chain.
- A diagram that shows the comparative amount of energy at each feeding level is called a(n) _____.
- The production of energy-rich sugar molecules using light energy is called _____.

Directions: The steps in the following food chains are out of order. Put them in the correct order by numbering them using 1 as the producer level. Place the number of the step in the blank at the left.

- | | | | | | | | |
|----------|----------|----------|----------|----------|-----------|-----------|-----------|
| 7. _____ | a. hawk | 8. _____ | a. tiger | 9. _____ | a. algae | 10. _____ | a. marmot |
| _____ | b. grain | _____ | b. grass | _____ | b. seal | _____ | b. grass |
| _____ | c. mouse | _____ | c. deer | _____ | c. fish | _____ | c. bear |
| _____ | d. snake | | | _____ | d. shrimp | | |

Directions: Answer the following questions on the lines provided.

11. In the above food chains, what do all the first-step organisms have in common?

Second-step organisms?

12. Explain why an energy pyramid is in the shape of a pyramid.
