

DIAGNOSTIC TEST: PRINCIPLES OF ECOLOGY

Choose the letter of the best answer.

- _____ 1. All living things are made up of
a. organs. c. cells.
b. enzymes. d. oxygen.
- _____ 2. Figure 13.1 illustrates how plants undergo photosynthesis. What waste product from this reaction is crucial for humans?

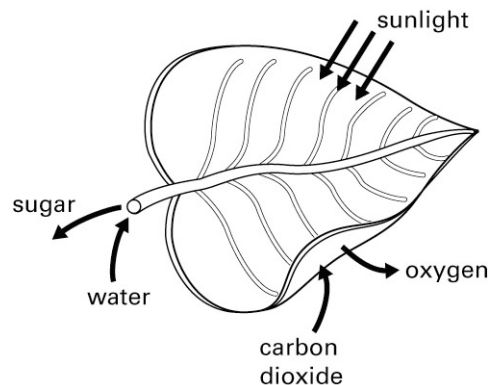


FIG. 13.1

- a. sugar c. water
b. CO₂ d. O₂
- _____ 3. During cellular respiration, plants and animals break down sugar to obtain
a. water. c. energy.
b. oxygen. d. carbon dioxide.
- _____ 4. To test the hypothesis that wolves eat mice, a scientist would have to
a. conduct an experiment.
b. formulate a theory.
c. create a model.
d. evaluate results.
- _____ 5. Which statement best describes the importance of photosynthesis?
a. Photosynthesis keeps plants green.
b. Photosynthesis makes water available to the plant.
c. Photosynthesis provides the plant with sugar.
d. Photosynthesis builds plant DNA.

Diagnostic Test *continued*

- _____ 6. Which of the following terms best describes all of the rainbow trout that live in one particular river?
- a. population
 - b. community
 - c. system
 - d. biome
- _____ 7. The two finches in Figure 13.2 have two different shapes of beaks. One has a large beak and eats nuts and seeds. The other finch has a long beak that it uses to pick insects off tree bark. Which of the following statements is true?



FIG. 13.2

- a. The two finches belong to the same species.
 - b. The two finches are not the same size.
 - c. The two finches have traits that allow them to eat different food.
 - d. The two finches probably do not exist today.
- _____ 8. The basis of most molecules that make up living things is
- a. nitrogen.
 - b. hydrogen.
 - c. oxygen.
 - d. carbon.
- _____ 9. Which of the following can be lost or used up during a chemical reaction?
- a. electrons
 - b. enzymes
 - c. matter
 - d. energy
- _____ 10. The unique properties that make water so important to life on Earth are related to water's
- a. complex molecular structure.
 - b. inability to dissolve substances.
 - c. hydrogen bonds.
 - d. stable electrons.