

## Study Island

Copyright © 2015 Edmentum - All rights reserved.

### Biomes & Ecosystems

1. Seals are successful in ecosystem X. Alligators are successful in ecosystem Y. Which of the following is probably a physical difference between ecosystem X and ecosystem Y?

- ☐ A. Ecosystem X is cooler than ecosystem Y.
  - ☐ B. Ecosystem X has better soil than ecosystem Y.
  - ☐ C. Ecosystem X has fish and ecosystem Y does not.
  - ☐ D. Ecosystem X is on land and ecosystem Y is in water.
- 

### Ecosystem Change

2. Farmers sometimes use slash and burn farming techniques, which consist of cutting down and burning forests to make enough room to grow crops. There are several problems with this, including that the farmland created by this method is only good for a short time.

How does slash and burn farming affect the environment?

- ☐ A. It helps the environment by creating more oxygen and by increasing the amount of vegetation in the burned area.
  - ☐ B. It ruins the area for future farming, removes oxygen-producing trees, and creates harmful gases from the fires needed to burn the area.
  - ☐ C. It has no effect on the environment.
  - ☐ D. It creates areas that allow farmers to grow crops for a long time and does not affect the vegetation in the area.
-

## Photosynthesis & Respiration

3. Cellular respiration involves a reaction between glucose and oxygen to form

- ☐ A. carbon dioxide.
  - ☐ B. water.
  - ☐ C. energy.
  - ☐ D. all of these
- 

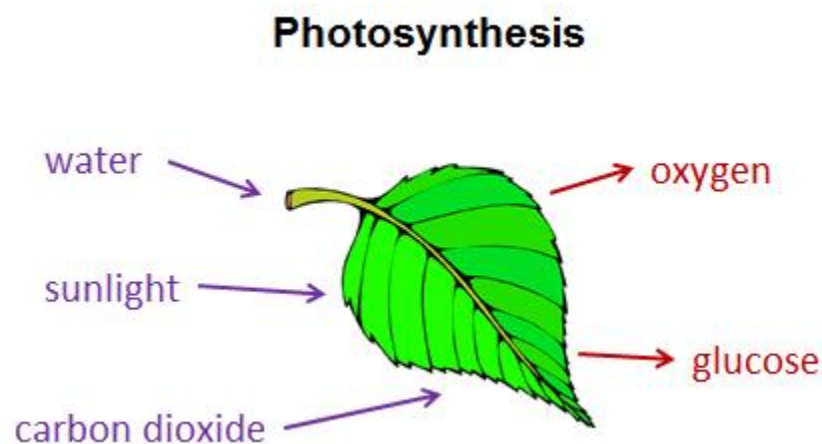
## Ecosystem Change

4. Within any ecosystem, there is a fixed amount of energy available for organisms to use. Since organisms usually produce more offspring than a given ecosystem can support, this causes \_\_\_\_\_.

- ☐ A. competition
  - ☐ B. parasites
  - ☐ C. genetic drift
  - ☐ D. bottlenecking
- 

## Photosynthesis & Respiration

5. The model below presents the relationship of the reactants and products involved in photosynthesis.



If all other factors stayed the same, which of the following would likely decrease the rate of photosynthesis?

- ☐ A. an increase in the amount of carbon dioxide
  - ☐ B. an increase in the amount of oxygen
  - ☐ C. a decrease in the amount of oxygen
  - ☐ D. a decrease in the amount of carbon dioxide
- 

### **Matter & Energy in Ecosystems**

6. Technology Enhanced Questions are not available in Word format.

---

### **Matter & Energy in Ecosystems**

7. Through the process of photosynthesis, plants make their own food using energy from the Sun, carbon dioxide from the air, and water from the ground. This food can then be stored for later use, or energy from the food can be released by the plant through the process of cellular respiration. This energy is then used to perform other life processes.

What is another common use of the food produced by plants?

- ☐ A. The food is vaporized to help fuel the Sun.
  - ☐ B. The food is excreted as waste and is no longer useful.
  - ☐ C. The food is used by an animal when it consumes the plant.
  - ☐ D. The food is converted entirely into heat energy.
- 

### **Ecosystem Change**

8. Which of the following statements is true?

- ☐ A. Species diversity tends to remain constant during ecological succession.
  - ☐ B. Species diversity is not affected by ecological succession.
  - ☐ C. Species diversity tends to increase as a result of ecological succession.
  - ☐ D. Species diversity tends to decrease as a result of ecological succession.
-

## Biomes & Ecosystems

9. The image below shows a portion of an aquatic ecosystem.



Which of the following best describes an ecosystem?

- ☐ A. several different species of organisms living together
  - ☐ B. plants and animals living together at the same place and time
  - ☐ C. the nonliving factors that support various populations
  - ☐ D. a living community and all the nonliving factors that affect it
- 

## Matter & Energy in Ecosystems

10. The amount of matter in the Earth system remains constant over time. The forms and locations of the matter stored within the system, however, change continually as it cycles through the Earth.

Matter can be transferred between which of the following elements of the Earth system?

- ☐ A. from the physical environment to living organisms
  - ☐ B. from one living organism to another living organism
  - ☐ C. from living organisms to the physical environment
  - ☐ D. all of these
-