

Situational Quiz: Biotic and Abiotic Factors

1. Mia observed a garden and saw butterflies, flowers, soil, and sunlight. Which is an abiotic factor?
 - A. Grass
 - B. Flower
 - C. Soil
 - D. Butterfly
2. During a hot afternoon, plants in the school garden began to wilt because there was very little water. Which abiotic factor directly affected the plants?
 - A. Water
 - B. Insects
 - C. Birds
 - D. Grass
3. A farmer noticed that his vegetables grew poorly in an area with little sunlight. Which statement best explains the situation?
 - A. Sunlight is a consumer in the ecosystem.
 - B. Sunlight is a biotic factor that helps vegetables grow.
 - C. Sunlight is an abiotic factor that affects plant growth.
 - D. Vegetables are abiotic because they cannot move.
4. In a pond, fish eat small insects, while water temperature affects how active the fish are. Which factor is biotic?
 - A. Fish
 - B. Water
 - C. Sunlight
 - D. Water temperature
5. A strong typhoon damaged many trees in a forest. Which factor in this situation is abiotic?
 - A. Birds
 - B. Typhoon winds
 - C. Trees
 - D. Insects
6. A learner studies a rice field and lists the following: rice plants, frogs, water, sunlight, and soil. Which are biotic factors? Select all that apply.
 - A. Sunlight
 - B. Rice plants
 - C. Frogs
 - D. Water

7. A rock beside a stream is an abiotic factor because it is nonliving.
True
False
8. A school garden has fewer earthworms after the soil became very dry. What relationship does this situation show?
A. Two abiotic factors affect each other.
B. An ecosystem has no relationship between living and nonliving factors.
C. A biotic factor becomes an abiotic factor.
D. An abiotic factor can affect a biotic factor.
9. A fishpond becomes warmer because the pond receives more sunlight. The fish become less active. Which abiotic factor changed?
A. Aquatic plants
B. Small fish
C. Fish population
D. Water temperature
10. Plants, animals, fungi, and bacteria are examples of biotic factors in an ecosystem.
True
False