

Understanding Natural Selection and Evolution

Biology · Answer Key · 14 Questions

1. What is the definition of natural selection?

- A) The process where organisms change their own DNA
- B) A process where individuals with favorable traits are more likely to survive and reproduce**
- C) A process where all individuals in a population survive equally
- D) The study of fossils

2. What does the phrase 'survival of the fittest' actually mean?

- A) Survival of the strongest
- B) Survival of the most aggressive
- C) Survival of the best adapted**
- D) Survival of the largest

3. What is a 'trait' in biological terms?

- A) A learned behavior
- B) A physical characteristic of an organism**
- C) A choice made by an animal
- D) The age of an organism

4. Why is variation necessary for natural selection?

- A) It ensures all organisms are identical
- B) It allows for differences among individuals in a population**
- C) It prevents reproduction
- D) It makes the environment safer

5. Which of the following is an example of an environmental pressure?

- A) Predators
- B) Climate changes
- C) Food availability
- D) All of the above**

6. What happens to helpful traits over time within a population?

- A) They disappear
- B) They become more common**
- C) They change randomly
- D) They are removed by the environment

7. Do individual organisms evolve during their lifetime?

- A) Yes, they evolve based on their needs
- B) Yes, they evolve as they grow older
- C) No, only populations evolve over time**
- D) No, evolution is a myth

8. What is 'overproduction' in the context of natural selection?

- A) Producing fewer offspring than can survive
- B) Producing more offspring than the environment can support**
- C) The process of cloning
- D) When animals stop reproducing

9. Which of these is a resource that organisms might compete for?

- A) Mates
- B) Food
- C) Shelter
- D) All of the above**

10. If a rabbit lives in a snowy environment, which trait provides a survival advantage?

- A) Dark fur
- B) White fur**
- C) Large ears
- D) Long legs

11. What is the final step in the 5 steps of natural selection?

- A) Environmental pressure occurs
- B) Variation exists
- C) Population changes over time**
- D) Survivors reproduce

12. What is another term for 'Different survival and reproduction'?

- A) Differential reproductive success**
- B) Genetic mutation
- C) Artificial selection
- D) Adaptation loss

13. Which of the following is an example of a trait?

- A) Beak shape
- B) Fur color
- C) Size
- D) All of the above**

14. How are traits passed to the next generation?

A) Through inheritance from parents

B) By learning behaviors

C) Through environmental exposure

D) They are not passed on