

Quiz: Theory of Natural Selection

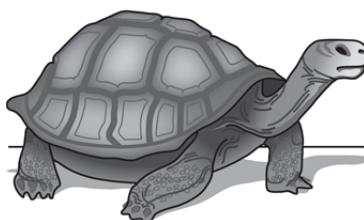
Read each question. Circle the letter of the correct answer.

1. Which statement is true about natural selection?
 - A. It forms new traits.
 - B. It acts on variable traits.
 - C. It forms new genetic material.
 - D. It acts on genetic material directly.
2. Genetic variation can be increased by _____.
 - A. overproduction
 - B. heritable mutations
 - C. asexual reproduction
 - D. individual adaptations
3. Which of these lists three influential scientists whose ideas contributed to Darwin's theory of evolution?
 - A. Leclerc, Lyell, Malthus
 - B. Lyell, Mendel, Wallace
 - C. Grant, Leclerc, Wallace
 - D. Linnaeus, Malthus, Mendel
4. What did Charles Darwin learn from the fossils of a giant armadillo that he found in Argentina?
 - A. Fossils do not resemble modern animals.
 - B. Armadillos used to be marine organisms.
 - C. An earthquake led to the armadillo's extinction.
 - D. Modern animals may be related to fossilized organisms.
5. Fossils of marine organisms high in the Andes Mountains led Darwin to conclude that _____.
 - A. Earth is 6,000 years old
 - B. an earthquake had taken place
 - C. great change can happen over time
 - D. interspecific variation had taken place
6. A bird that can easily outcompete other birds for food and that can produce many eggs has a high _____.
 - A. fitness
 - B. adaptability
 - C. mutation rate
 - D. life expectancy
7. Natural selection results in change over time by acting on traits that are _____.
 - A. new
 - B. better
 - C. mutated
 - D. heritable
8. As an environment changes, some organisms have a higher fitness than others in the new environment. This can lead to _____.
 - A. lower genetic variation in the offspring of organisms with higher fitness
 - B. greater genetic variation in the offspring of organisms with lower fitness
 - C. greater reproductive rates and survivorship of those organisms with lower fitness
 - D. greater reproductive rates and survivorship of those organisms with higher fitness

9. The illustration shows tortoises from Albemarle and Abingdon islands.



Albemarle Island



Abingdon Island

The variations in the features of the tortoise populations on Albemarle and Abingdon islands are examples of _____.

- A. natural selection
- B. vestigial structures
- C. acquired characteristics
- D. molecular fingerprinting

Read each statement. Write your answer on the lines.

11. How were Galápagos Island finches similar to each other and yet different from each other?

12. According to Darwin, how does natural selection lead to the evolution of species?

Name: _____

Date: _____

Unit 8 Lesson 2

Lesson Quiz

13. Why did Darwin believe that the finches he observed and collected in the Galápagos Islands shared a common ancestor?

14. Explain the four steps of evolution by natural selection.

15. Charles Darwin observed that species have changed over time.

Define natural selection.

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Predict what effect natural selection might have on a population of deer if a drought killed most of the shrubs that were their favorite food and only the taller, more established trees survived.
