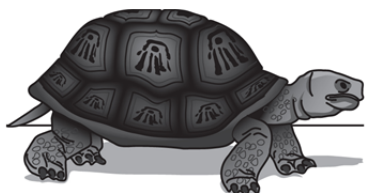


**Quiz: Theory of Natural Selection**

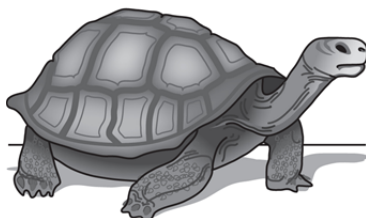
Read each question. Circle the letter of the correct answer.

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

10. Which statement about the steps of evolution by natural selection is not true?
- A. Populations are able to overproduce.
  - B. A small amount of variation can be attributed to inherited traits.
  - C. Adaptations for an environment become more common over time.
  - D. Some individuals produce more offspring than others due to their environment.

**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?

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

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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?

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

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

Define natural selection.

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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.

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