

**Pretest: Evidence for Evolution**

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

1. What is the hypothesis that evolution occurs at a slow, gradual pace?
  - A. gradualism
  - B. adaptation
  - C. slow motion
  - D. natural selection
2. What is the selective agent in natural selection?
  - A. humans
  - B. breeders
  - C. mutations
  - D. environment
3. What is the name given for genetic changes in living things over time?
  - A. evolution
  - B. adaptation
  - C. homeostasis
  - D. negative feedback
4. The DNA sequences of whales and ungulates, or hooved animals, are very similar. What type of evidence of evolution is this?
  - A. fossil
  - B. vestigial
  - C. molecular
  - D. embryological
5. Charles Lyell developed a theory that influenced Darwin's ideas about evolution taking place slowly throughout time. What is the name of this theory?
  - A. evolution
  - B. adaptation
  - C. catastrophism
  - D. uniformitarianism
6. Darwin's observations of finches indicated descent with \_\_\_\_\_.
  - A. convergence
  - B. modification in bills
  - C. no change in species
  - D. inheritance of large bills
7. What is the process in which humans breed organisms for certain traits?
  - A. artificial selection
  - B. natural selection
  - C. descent without modification
  - D. inheritance of acquired characteristics
8. On which of these issues did Lamarck and Darwin have similar views?
  - A. the age of Earth
  - B. changes in the frequency of certain alleles in a population
  - C. plants and animals producing more offspring than can survive
  - D. adaptations to the environment
9. Which aspects of life on Earth are accounted for by evolution?
  - A. diversity and unity
  - B. interaction and conflict
  - C. lack of genetic and physical change
  - D. divergence of structure and function
10. What would two closely related organisms have?
  - A. no proteins in common
  - B. very similar DNA sequences
  - C. exactly the same DNA sequences
  - D. completely different DNA sequences

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Unit 8**

**Unit Pretest**

11. Fossil evidence shows that structures considered vestigial in living organisms \_\_\_\_\_.
- A. have always been vestigial
  - B. were useful to their ancestors
  - C. do not fill gaps in the fossil record
  - D. are not found in ancient organisms
12. Which of these is most likely indicated when two species have similar DNA sequences?
- A. The species are not closely related.
  - B. The species will have similar fitness.
  - C. The species share a common ancestor.
  - D. The species have no evolutionary relationship.
13. What evidence for a past evolutionary relationship can be seen in different groups of vertebrates?
- A. totally different protein sequences
  - B. no homologous structures in their anatomy
  - C. similar features in early stages of embryos
  - D. different features in early stages of embryos
14. According to Darwin's view of natural selection, what is overproduction?
- A. too many species in one area
  - B. more offspring than can survive
  - C. more food than is needed by a population
  - D. too few organisms to enable all to survive
15. What was the major idea that Darwin presented in his book *The Origin of Species*?
- A. elephants and bacteria changed constantly
  - B. animals changed, but plants remained the same
  - C. species changed over time by natural selection
  - D. species changed over time and never competed with each other