

## Skills Worksheet

# Theory of Evolution

---

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

- \_\_\_\_\_ 1. The process in which organisms with traits well suited to an environment are more likely to survive and to produce offspring is
- a. trait mechanisms.
  - b. origin of species.
  - c. genetic principles.
  - d. natural selection.
- \_\_\_\_\_ 2. Most scientists agree that
- a. Earth is about 3.5 million years old.
  - b. life is new on Earth.
  - c. living organisms share ancestry.
  - d. intermediate fossils do not exist.
- \_\_\_\_\_ 3. A change in the genetic makeup of species over time is called
- a. radioactive dating.
  - b. evolution.
  - c. camouflage.
  - d. fossilization.
- \_\_\_\_\_ 4. The process by which a species becomes better suited to its environment is
- a. artificial selection.
  - b. not an advantage.
  - c. adaptation.
  - d. destructive to its survival.
- \_\_\_\_\_ 5. Structures that share a common ancestry or are similar because they are modified versions of structures from a common ancestor are
- a. not related.
  - b. homologous.
  - c. not homologous.
  - d. young in origin.
- \_\_\_\_\_ 6. Structures with no function that are remnants of an organism's evolutionary past are
- a. not visible on organisms.
  - b. young in origin.
  - c. vestigial.
  - d. useful to the organism.
- \_\_\_\_\_ 7. Species that share a common ancestor
- a. have many amino acid sequence differences.
  - b. have few amino acid sequence differences.
  - c. have identical nucleotide sequences.
  - d. are not represented by the fossil record.
- \_\_\_\_\_ 8. Individuals that have traits that enable them to survive in a given environment can reproduce and
- a. begin the process of coevolution.
  - b. pass on those traits to their offspring.
  - c. slow the process of evolution.
  - d. All of the above

**Theory of Evolution** *continued*

---

- \_\_\_\_\_ **9.** Populations of a species that now differ genetically because they have adapted to different living conditions have undergone
- a.** convergent evolution.
  - b.** artificial selection.
  - c.** adaptive radiation.
  - d.** coevolution.
- \_\_\_\_\_ **10.** Which of the following statements was NOT suggested by Darwin?
- a.** Natural selection is the mechanism that drives evolution.
  - b.** Antibiotic-resistant strains of bacteria have evolved by natural selection.
  - c.** There are many examples of how natural selection has shaped life on Earth.
  - d.** The beak shapes of the finches of the Galápagos are determined by natural selection.
- \_\_\_\_\_ **11.** Which of the following is a factor in natural selection?
- a.** Individuals of a species compete with one another to survive.
  - b.** All species are genetically diverse.
  - c.** Individuals better able to adapt to changes leave more offspring.
  - d.** All of the above
- \_\_\_\_\_ **12.** When a species permanently disappears, the species is said to be
- a.** extinct.
  - b.** rare.
  - c.** adapted.
  - d.** eliminated.
- \_\_\_\_\_ **13.** The adaptation of bacteria to survive the effects of antibiotics is called
- a.** resistance.
  - b.** convergence.
  - c.** divergence.
  - d.** elimination.
- \_\_\_\_\_ **14.** The fossil record provides evidence that
- a.** older species gave rise to more-recent species.
  - b.** all species were formed during Earth's formation and have changed little since then.
  - c.** fossilized species have no connection to today's species.
  - d.** fossils cannot be dated.
- \_\_\_\_\_ **15.** Individuals that are better able to cope with the challenges of their environment tend to
- a.** decrease in population over time.
  - b.** leave more offspring than those more suited to the environment.
  - c.** leave fewer offspring than those less suited to the environment.
  - d.** leave more offspring than those less suited to the environment.
- \_\_\_\_\_ **16.** The pelvic bones of modern whales no longer function like the pelvis of a land vertebrate and are an example of
- a.** an analogous structure.
  - b.** a homologous structure.
  - c.** a vestigial structure.
  - d.** coevolution.