

Natural Selection, Darwin, and Extinction

Brainpop Questions

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1. What trait determines whether two animals belong to the same species? Choose the best answer.

- A. The environment they live in
- B. Their physical appearance
- C. Their ability to breed with one another
- D. Their evolutionary relationship to humans

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

- A. The air pressure in the atmosphere
- B. A lake that's gradually running out of water
- C. A fight between two members of the same species
- D. Breeding between two members of the same species

3. What can you infer from the fact that all life on Earth is related, if you go back far enough?

- A. Many different species existed at the beginning of time
- B. Very few species have gone extinct over time
- C. Animals mutate and evolve at an extremely rapid rate
- D. All life on Earth evolved from just a few simple life forms

4. How are camels especially suited to their environment? Choose the best answer.

- A. Their humps make them good pack animals for humans
- B. Their long eyelashes make them look attractive
- C. They're able to go without water for long periods of time
- D. They get along well with other members of their species

5. In the phrase "survival of the fittest," to what does the term "fittest" refer?

- A. The best-adapted organisms
- B. The biggest organisms
- C. The smartest organisms
- D. The fastest organisms

6. Which of the following is the most likely example of a favorable mutation?

- A. A mutation that makes a rabbit able to run faster
- B. A mutation that changes the color of a rabbit's fur to bright orange
- C. A mutation that changes the color of a rabbit's eyes
- D. A mutation that gives a rabbit a third ear

7. "Mutations are more likely to be passed along if they're advantageous to an organism." What does this sentence mean?

- A. A genetic change that helps an organism survive is likely to be passed down from parent to child
- B. Mutant parents are very likely to give birth to mutant children
- C. Mutations inherited from an organism's parents rarely help that organism survive
- D. Mutations are passed along from parent to child whether they help an organism survive or not

8. In what way is life on Earth similar to a large tree? Choose the best answer.

- A. It is rooted in the ground
- B. All of the different branches are connected
- C. All of life needs water to survive
- D. It cannot move under its own power

9. What is a common ancestor?

- A. An animal that has a lot of offspring
- B. An animal that is related to many other species
- C. An animal from which two or more different species evolved
- D. An animal that's good at escaping from predators

10. Species go extinct when:

- A. They've survived for longer than ten million years
- B. They can't adapt to environmental changes
- C. Their genetic code changes
- D. They lose the ability to evolve

11. What is evolution?

- A. When animals move to warmer climates in the winter
- B. How organisms change across many generations
- C. The migration of different species through the seasons
- D. Ancient rock layers and the fossils they contain

12. According to the theory of evolution, which of the following statements is true?

- A. Humans evolved from chimpanzees
- B. Chimpanzees evolved from humans
- C. There is no evolutionary relationship between humans and chimpanzees
- D. Humans and chimps evolved from a common ancestor

13. If the fossil record of human evolution is incomplete, why do scientists still believe humans evolved from ape-like ancestors?

- A. Because existing evidence in the fossil record strongly suggests it
- B. Because scientists make a lot of money by promoting the theory of evolution
- C. Because the theory of evolution is more than 100 years old, which means it must be correct
- D. Because humans and apes look similar to one another

14. How is a scientific theory different from a guess?

- A. Theories are created by scientists; guesses are made by regular people
- B. Theories are backed up by evidence; guesses are not
- C. Theories are usually longer than guesses
- D. "Theory" is simply a fancier word for "guess"

15. What trait is most likely to be passed on from one generation to the next?

- A. A trait that helps a creature avoid predators
- B. A trait that prevents an animal from seeing well
- C. A trait that prevents a creature from reproducing
- D. A trait that has no effect on a creature's life

17. Which of the following is a true statement about the members of a species?

- A. They must live in the same geographic area
- B. They must be able to breed with one another
- C. They must be able to move under their own power
- D. They must not be extinct at the present time

18. According to most scientists, what is the ultimate cause of most mass extinctions?

- A. Overhunting
- B. The evolution of new species to replace old ones
- C. Major changes in the environment
- D. Asteroid impacts

19. What can you conclude from the fact that more than a billion species have gone extinct during Earth's history?

- A. Extinction is a natural part of life on Earth
- B. Extinction happens only rarely
- C. The rate of extinction has increased since humans evolved
- D. The earth's environment is not good at supporting life

20. The bald eagle almost went extinct when humans began using a pesticide called DDT. What can you conclude from the fact that bald eagle numbers have since rebounded?

- A. The bald eagle is one of the hardest birds on Earth
- B. The eagles learned to stay away from areas where the pesticide was sprayed
- C. The eagles quickly evolved to tolerate the pesticide
- D. The pesticide was banned

21. How has the expanding human population led to an increasing rate of extinction? Choose the best answer.

- A. Humans kill and eat too many other species
- B. Humans re-shape their environment, putting pressure on other species
- C. Humans have been forced to destroy dangerous, violent species
- D. Humans consume too much oxygen, preventing other species from breathing

22. How can the extinction of a plant species have such a drastic effect on a food chain? Choose the best answer.

- A. Food chains are all composed of several types of plant and several types of animal, so if one plant dies out, the chain breaks down
- B. Plants are the main source of food for carnivores like bears, so if plants go extinct, bears will starve.
- C. Food chains rely on certain types of plants to function properly, so if a plant dies out, all the other species in the food chain will die out, too.
- D. If the extinct species was the main food source for another animal, that animal will have to find a new way to survive.

23. Which of the following words best describes the process of evolution?

- A. Responsive
- B. Directed
- C. Violent
- D. Eternal

24. What can humans do to make sure that fish species don't go extinct? Choose the best answer.

- A. Destroy sharks and other predators in the ocean
- B. Stop the practice of overfishing
- C. Stay away from the oceans entirely
- D. Stop eating fish altogether

25. What is a scientific theory? Choose the best answer.

- A. An explanation that makes a lot of sense
- B. An explanation that's backed up by evidence
- C. An explanation that's popular among the public
- D. An explanation that's thought up by a scientist