

## *The Diversity of Living Things: Unit 1, Lesson 2, “Theory of Evolution by Natural Selection”*

Answers:

Answers 1-3 should represent students' current thoughts, even if incorrect.

1. T, T, F, T

2. Sample answer: I think that the bird gets nectar from the flower because the long flower fits the bird's long beak. The red color may be attractive to the bird.

3. Sample answer: Artificial means something that is not real or not natural.

4. Students should define or sketch each vocabulary term in the lesson.

5. Student answers should be written as entries in Darwin's log, and should include information about living things in the destination chosen.

6. Sample answer: It might help the bird peck into wood to find insects.

7. Sample answers: dogs; chickens; pigs

8. *See students' pages of annotations.*

9. Although DNA affects a person's body shape and size, a person's activities will determine the size of a person's muscles

10. The human population size increases faster than the food supply.

11. Sample answers: ability to swim fast; ability to eat a variety of food; ability to blend in with the surroundings.

12. Jaguars with large jaws and teeth survived and reproduced more than other jaguars, so these traits become more common.

13. overproduction: Organisms have more offspring than can survive; genetic variation: Offspring have slight differences in their traits; selection: Some traits increased the chances that an organism will survive; adaptation: Over time, a trait that helps survival will become more common.

14. *See students' pages for annotations.*

15. Sample answer: This butterfly uses its long mouth part to reach the nectar deep within the flowers.

16. It has decreased substantially.

17. Sample answer: Organisms with adaptations that allow them to survive in the new conditions will survive and reproduce. These adaptations will become more common. Some species may become extinct.

### **Visual Summary Answers**

18. artificial

19. inherited variation

20. extinct

21. sample answer: Different traits are advantageous, depending on the environment

## Lesson Review Answers

1. genetic variation
2. Evolution
3. adaptation
4. Darwin saw variations in finches that lived on neighboring islands. Finches on different islands had different beak types.
5. It can lead to the extinction of a species unless variations allow for adaptation.
6. Acquired traits are not passed on to offspring.
7. Mutations are a main source of variation. Some mutations are beneficial. The resulting adaptations will become more common through natural selection.
8. The lizard's body color blends in with the surroundings. This helps it hide from predators.
9. Rabbits with advantageous traits, such as the ability to run very fast, could survive, and the rabbit population could change over time. Or the rabbits, might not survive.