

Study Guide 10.2: Darwin's Observations

KEY CONCEPT

Darwin's voyage provided insights into evolution.

VOCABULARY

variation

adaptation

MAIN IDEA: Darwin observed differences among island species.

1. What is variation among members of *different* species called?

2. What is variation among members of *the same* species called?

3. What island chain in South America was the source of many of Darwin's insights?

4. Darwin saw populations of various species that seemed well-suited to their environment. What did this suggest?

MAIN IDEA: Darwin observed fossil and geologic evidence supporting an ancient Earth.

5. Darwin observed fossils of huge animals such as *Glyptodon*, a giant armadillo. Why were these fossils of interest to him?

6. Many people in the 1700s thought that Earth was only about 6000 years old. How did the fossil organisms Darwin saw lead him to think Earth must be much older than that?

7. Darwin also observed fossil shells of marine organisms high up in the Andes mountains, and saw an earthquake move land that was underwater above sea level. How did he apply these insights to the evolution of organisms?

8. Look at Figure 2.2 in your textbook. What differences between the two Galápagos tortoises can you identify from the two pictures?

Vocabulary Check

| | |
|------------------|-------------------|
| variation | adaptation |
|------------------|-------------------|

- _____ 9. the difference in the physical traits of an individual from those of other individuals in the group to which it belongs
- _____ 10. a feature that allows an organism to better survive in its environment
- _____ 11. A tortoise population lives in an area with high grass. These tortoises have longer necks than tortoises that live in other areas. The long necks are an example of this.
- _____ 12. One bird in a population has a slightly thicker beak than its relatives. This thicker beak is an example of what in the population.

Be Creative

In the space below, draw a sketch of a bird that may eat the food choice that is given in the left column.

| Food choice | Sketch |
|-------------------------------|---------------|
| Eats large, hard-shelled nuts | |
| Eats fruit and insects | |