

## Chapter 12

Text Pages 334–336

## ENRICHMENT

## ● Extinction of Dinosaurs

**Dinosaurs in Argentina**

Use the information below to answer the questions.

You know that geologists study rocks and minerals. Geologists are also interested in fossils, but two other kinds of scientists are specialists in the study of fossils. Paleontologists study life that existed in ancient times, usually through fossils. Evolutionary biologists study the changes in forms of life over long periods of time.

A paleontologist working in Argentina about thirty years ago was led by a local goatherder to the bones of a 230-million-year-old carnivore. He named the animal “herrerasaurus” after the herder, Victorino Herrera, who had taken him to the site. Paul Sereno, an evolutionary biologist from Chicago, and a team of Argentine researchers returned a few years ago to the site where herrerasaurus had been identified. They found more bones and, eventually, a nearly complete skeleton. The skull even included teeth, which are often missing in fossils. The

herrerasaurus skull had an extra jaw hinge, like snakes have today. This would enable it to prey on and grasp very large animals. It had serrated teeth to tear tough flesh. It also had claws on its short forelegs. It may have walked on hind legs and used its forelegs to grasp prey.

Since then, Sereno and others have uncovered parts of skeletons of varying sizes. They have determined that an adult herrerasaurus might be 4.6 meters tall and weigh up to 275 kilograms.

Have Sereno and the other searchers found the oldest dinosaur that ever lived? So far, they have the oldest dinosaur to be uncovered. In rocks below the herrerasaurus, Sereno discovered the remains of an animal that existed before dinosaurs. It dates back about 245 million years. Biologists and paleontologists are curious about what more can be found in the region.

1. Locate Argentina on a map and calculate its approximate distance from the western United States where the remains of thousands of dinosaurs have been found. What does the distance between the two places add to the theories that dinosaurs became extinct after Earth collided with a meteorite or that there was a period of great volcanic activity? \_\_\_\_\_

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2. If Sereno decides to search the area for an older dinosaur than the herrerasaurus, where should he look? Give reasons for your answer. \_\_\_\_\_

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