

Answer Guide

Evolution: Life Through Time

1. **Answers will vary.** However, the drawings should show that there was a lot of life in seas, but none on land.
2. **Sharks.** Think of *Dunkleosteus* (done-kull-AHST-ee-iss) as the Great White Shark of its time. It preyed on a variety of sea creatures that were living at the time. These included squid-like animals, sharks, and other placoderms.
3. **80% to 90%.** There have been five big extinction events since complex animals evolved. The most dramatic of these events occurred about 252 million years ago, at the end of the Permian Period. Every group of plants and animals suffered. In total, 80 to 90 percent of the world's species died out.
4. **Answers will vary.** To identify the track-makers, scientists compare the prints to the fossilized foot bones of animals living at the time and place the tracks were made. So far, they haven't found a perfect match, but there are a few possibilities. The tracks are a trace fossil. Trace fossils include footprints, tooth marks, and other evidence of prehistoric activity that show how animals behaved.

Grades K-2

5. **All answers should be "Yes."** This sauropod, a long-neck dinosaur, was not even done growing!
6. ***Majungasaurus* and *Deinonychus* should be circled** because they ate meat---they were both carnivores. *Majungasaurus* hunted its prey like a cat because of its short snout.
***Anchiceratops* and *Sauropod* are crossed out** because they ate plants or are herbivores.
7. **Both animals should be crossed out.** Student may get confused about what is and what is not a dinosaur. A dinosaur lived on land and could walk with legs directly underneath them. To explain to the students, here are some rules about dinosaurs:
 - a. They did not have fur.
 - b. They did not live in the water.
 - c. They did not do funny pushups.
8. **Answers will vary.** Explain to students that because *A. sediba* walked on the outer edges of its feet, it is possible that it is not the ancestor of *Homo sapiens*.
9. **Answers will vary.**