Fossil Clues to the Past

Grade 3 • SCIENCE • Students use fossil evidence to make supported conclusions about organisms and environments that existed long ago. • Standards: 3-LS4-1

Read each fossil clue carefully. Then write what the fossil evidence tells us about the organism or environment from long ago.

1. Scientists find a fossil of a fish skeleton in a rock layer. What does this tell us about that place long ago?

2. A fossil leaf has a very large, flat shape with smooth edges. What does this suggest about the plant it came from?

3. Fossils of seashells are found on top of a mountain. What does this evidence suggest about that mountain area in the past?

4. A fossil shows an animal with sharp, pointed teeth. What does this suggest about what the animal ate?

5. Scientists find many fossils of ferns and tropical tree leaves in one rock layer. What does this tell us about the climate in that area long ago?

6. A fossil footprint shows three large toes with claw marks. The footprint is very deep in the rock. What can we conclude about the animal that made it?

7. Fossils of the same type of small sea creature are found in rocks in both Africa and South America. What does this evidence suggest?

8. A fossil shows an animal with flat teeth and a long jaw. Nearby, scientists find fossils of grass and low plants in the same rock layer. What does this evidence suggest about the animal?

9. In one area, the lowest rock layer has fossils of only simple sea creatures. The middle layer has fossils of fish and early land plants. The top layer has fossils of large animals with legs. What does this pattern suggest?

10. A fossil of a flying animal has lightweight bones, wings with thin skin stretched between long fingers, and small sharp teeth. What can we conclude about how this animal lived?

Answer Key — Fossil Clues to the Past

For the teacher / parent. Do not distribute with the worksheet.

1. That place was covered by water long ago. *(Fish live in water, so finding a fish fossil means water was present there in the past.)*

2. The plant had large, flat leaves with smooth edges. *(The fossil preserves the actual shape and features of the leaf.)*

3. That area was once covered by ocean or sea water. *(Seashells come from ocean animals, so the area must have been underwater when those animals lived.)*

4. The animal likely ate meat or other animals. *(Sharp, pointed teeth are used for tearing meat.)*

5. The climate was warm and wet (or tropical). *(Ferns and tropical plants grow in warm, moist environments.)*

6. The animal was heavy and had three toes with claws. *(Deep footprints indicate a heavy animal, and the print shows the shape of its foot.)*

7. Those two places may have been connected by water or closer together long ago. *(The same sea creature in both places suggests the oceans connected those areas in the past.)*

8. The animal likely ate plants, especially grass and low plants. *(Flat teeth grind plant material, and the presence of plant fossils in the same layer suggests that was its food source.)*

9. Life changed over time from simple sea creatures to fish and plants to large land animals. *(The order of fossils in rock layers shows how life forms changed from simple to more complex and from water to land.)*

10. The animal could fly and likely caught and ate small animals or insects while flying. *(Wings and lightweight bones indicate flight ability, and small sharp teeth suggest it ate small prey.)*