

“Africa Digs”

Background Information

Paleontology is the study of prehistoric life, such as dinosaurs. Paleontologists study dinosaurs and other prehistoric animals primarily through the discovery of fossils. These fossils are often buried underground and have to be excavated, or dug up. Dinosaurs were on Earth before humans, so their bones are buried deep below the surface. Paleontologists carefully dig for dinosaur bones so they can piece them together and learn from the fossils. The fossils can help them learn when the animal lived, where the animal lived, and how the world was when the animal was alive. Fossils can also teach them what the animal looked like, what it ate, and other characteristics.

Fossils are remains that are more than 10,000 years old. There are five types of fossils:

- Petrified fossils form when water reaches a dead animal or plant that is buried in sediment, or layers of dirt and sand. When the water dries up, only the hardened minerals are left behind.
- Mold fossils form when the hard parts of an animal or plant are buried in sand or clay. The hard parts wear away over time, leaving a hollow area in the shape of the animal or plant. If water then fills the mold, a cast can form. A cast is like a copy of the animal or plant made from minerals.
- Trace fossils, like footprints, are a third type. After an animal steps in sand or mud, the footprint is buried in layers of sediment. Over time, the sediment becomes solid rock.
- Carbon fossils are a fourth type. All living things contain carbon. When a plant or animal dies, over time it may leave a thin layer of carbon that can show delicate parts, like leaves of a plant.
- Finally, some fossils get preserved in their original states. Examples include animals or plants preserved in ice, amber, or tar.

Before modern science, people still wanted to know about fossils. In ancient China, people thought the bones of dinosaurs were from dragons. The ancient Greeks told stories of Medusa, who could turn people and animals into stone. This is how they explained why fossils were found in rock.

Paleontology is slow work. Scientists have to be very careful when working with fossils. It can take years for paleontologists to understand how an animal from the past looked and lived.