

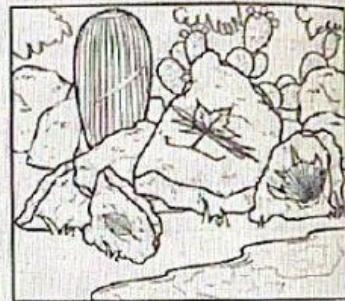
## Lesson 16

### Fossils

Fossils are remains of living things from centuries ago. They are the last traces of living things once buried deep below. These traces may be footprints or just trails or feet. It is rare to find a fossil that is entirely complete. Scientists called **paleontologists** study fossils. **Wood, bones, teeth and shells** are preserved or saved by being buried.



Sometimes it's a plant fossil that a scientist has found. Fossils teach us about many living things that are still around. Was this place under water? What can we use to tell? One way is if we find a fossil that looks like a seashell.



There are many different ways that a fossil can be formed. Here are a few.

A **mold** is an imprint made by the outside of a dead plant or animal. Mold forms when water washes animal or plant remains out of the rock.

Sometimes sediment or minerals fill a mold and form a cast. Whole plants or animals can become **fossilized**. When fossils are discovered, they are **excavated** (dug up) and studied.

Some living things like insects were caught inside **tree sap**. The sap then later hardened, and then ocean water filled the gap. The hardened sap then changed into **amber**, and the insects were preserved inside the clear brown amber where they can be observed.

Some living things were covered with sediment and tiny stones, and this preserved the outline of their body or their bones. Other types of fossils are found inside chunks of coal. Plant remains leave only imprints. Some are partial, and some are whole.



Another kind of fossil was made after something died. It was

buried in the landscape, and over the years were **petrified**. In this case, the word **petrified** means something “turned to stone,” and minerals filled in the parts that so long ago was bone.

Occasionally, some fossils found were **mummified**. This is when remains are found that were completely dried. Some living things were buried, and their remains formed a cast. These are some ways fossils preserved life forms from the past.

Some living things were frozen in place before the earth was warmed. Some animals fell into tar pits that hardened over the years. It appears that their bones and teeth were hardened into fossils. Some fossils show changes that dead animals made in their surroundings. These are called **Trace Fossils**. **Tracks, burrows, droppings and worm holes** are some examples of trace fossils. They tell how an animal might have moved, how big or small it might have eaten.

Fossils are found on every continent, but what are they used for? Fossils are how we have learned about the mighty dinosaur. Perhaps some of these fossils are still a mystery, but they hold important lessons to help us learn about earth's history.

1) What are fossils?

2) Which of these things can become a fossil?

a) plant      b) snail      c) fish      d) all of the above

3) What is amber?

4) What does the word "petrified" mean in the passage?

5) What is the name given to the scientist who studies fossils?

6) Explain how a mold is formed.

7) Define the term excavate.

8) Name TWO examples of trace fossils.