

# FUN WITH FOSSILS

## What is a fossil?

The word fossil comes from the Latin word *fossilis*, which means, "dug up". Most fossils are excavated from sedimentary rock layers (Sedimentary rock is rock that has formed from sediment, like sand, mud, and small pieces of rock).



Over long periods of time, these small pieces of debris are compressed (squeezed) and buried under layers of sediment that pile up on top of it. Eventually, they are compressed into sedimentary rock.

## How are fossils formed?

Some animals were quickly buried after their death (by sinking in mud, being buried in a sandstorm, etc). Over time more and more sediment covered the remains. The parts of the animals that didn't rot (usually the harder parts like bones and teeth) were encased in the newly formed sediment. In the right circumstances (when there is no scavengers, quick burial, not much weathering) parts of the animal turned into fossils over time.

After a long time the chemicals in the buried animals bodies underwent a series of changes. As the bone slowly decayed, water infused with minerals seeped into the bone and replaced the chemicals in the bone with rock-like minerals. The process of fossilization involves the dissolving and replacement of the original minerals in the object with other minerals (and or permineralization - the filling up of spaces in fossils with minerals, and /or recrystallization in which a mineral changes its form).

In the end we get a heavy, rock-like copy of the original object - **a fossil.**

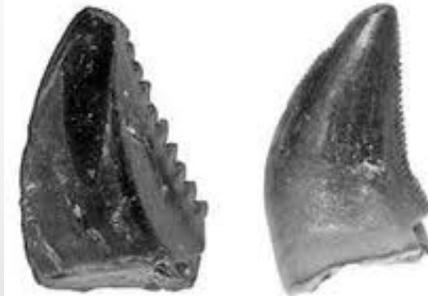
The fossil has the same shape as the original object, but is chemically more like a rock!



# BODY FOSSILS

Body fossils are formed from the actual remains of a once living organism!

Body fossils include: BONES, TEETH and CLAWS, EGGS (EMBRYOS), and SKIN!



# TRACE FOSSILS

Trace fossils (also called Ichnofossils) are different than body fossils. They aren't actually the remains of the organism, but they are evidence that the organism was present! Examples include: TRACKS, NESTS, BURROWS, CLAW MARKS, TOOTH MARKS, and even fossilized droppings called COPROLOTES!

