

Name: _____ Date: _____ **Introduction to Fossils and determining age of the rocks**

What is a fossil?

How do fossil Form?

In order for a fossil to form, an animal or plant must be _____ into a material. In many instances, fossils are found in _____. Layers of sediment will _____ the remains. This can continue for _____ of years. The actual remains that are found aren't the animal or plant at all. Instead, the remains begin to _____ within the sediment. _____ then replace the space that was once the remains. The mineral hardens and makes an _____ of the animal or plant. What is left is what is known as a _____.

What parts of an organism will form a fossil?

The _____ parts of an animal or plant decay more quickly than its hard parts, therefore _____ and _____ are more likely to be preserved than skin, tissues, and organs.

Types of fossils:

Mold: _____

Cast: _____

Petrified fossil: _____

What is the fossil record: _____

It provides _____ about the history of life on Earth and how different groups of organisms, including species, have _____.

To understand how living things have changed through time, scientists need to be able to determine the _____ of the fossil. Scientists can determine fossils age in two ways:

_____ and _____. The fossil record provides information about species that are _____ (or have died out).

1. Relative dating:

Scientists look at where the rock is _____. The older layers are _____ than the layers above.

This method only provides an _____ age of a fossil. The _____ age cannot be determined; you can only say that something appears earlier or later than something else.

2. Radioactive dating:

Scientists determine the actual age of a sample based in the **amount of remaining** _____ **it contains**. Calculations are based on _____.

Half-life: _____

What the graph tells us: The proportion of parent to daughter tells us the number of _____, which we can use to find the age in years. For example, if there are _____ amounts of parent and daughter, then _____ half-life has passed.

