

## Fossil Notes

**Directions:** Read pages 110-120 in *Earth's Changing Surface*. Fill in the notes as you read.

### WHAT ARE FOSSILS?

Fossils are the \_\_\_\_\_ remains or \_\_\_\_\_ of living things.

### HOW ARE FOSSILS FORMED?

Most fossils form when \_\_\_\_\_ die and are buried by sediments. The sediments slowly \_\_\_\_\_ into rock and preserve the \_\_\_\_\_ of the organisms.

Fossils are usually found in \_\_\_\_\_ rock, which is made of rock \_\_\_\_\_ or remains of \_\_\_\_\_.

### TYPES OF FOSSILS

1. \_\_\_\_\_ fossil – a \_\_\_\_\_ area in sediment in the shape of an organism. It forms when the hard part of the organism (like a shell) is \_\_\_\_\_.
2. \_\_\_\_\_ fossil – a solid copy of the shape of an organism. It is the \_\_\_\_\_ of a mold and is formed when water deposits \_\_\_\_\_ and \_\_\_\_\_ in the empty space of a mold.
3. \_\_\_\_\_ fossil – when \_\_\_\_\_ replace all or part of an organism. The minerals harden and preserve the organism over time.
4. \_\_\_\_\_ fossil – an extremely thin coating of \_\_\_\_\_ on rock. When sediment buries an organism, some the organism evaporates and leaves behind carbon.
5. \_\_\_\_\_ fossil - gives evidence of the \_\_\_\_\_ of ancient organisms. The sediment preserves the \_\_\_\_\_ of an organism and slowly hardens into rock (like a footprint).
6. \_\_\_\_\_ Remains – some organisms are preserved with little or no change. For example, tar and \_\_\_\_\_ (the sap from evergreen trees) can cover and seal an organism completely. Others have been \_\_\_\_\_, which can even preserve hair and skin.



Mold fossil

Cast fossil



Carbon fossil



Preserved in amber

## WHAT CAN FOSSILS TELL US?

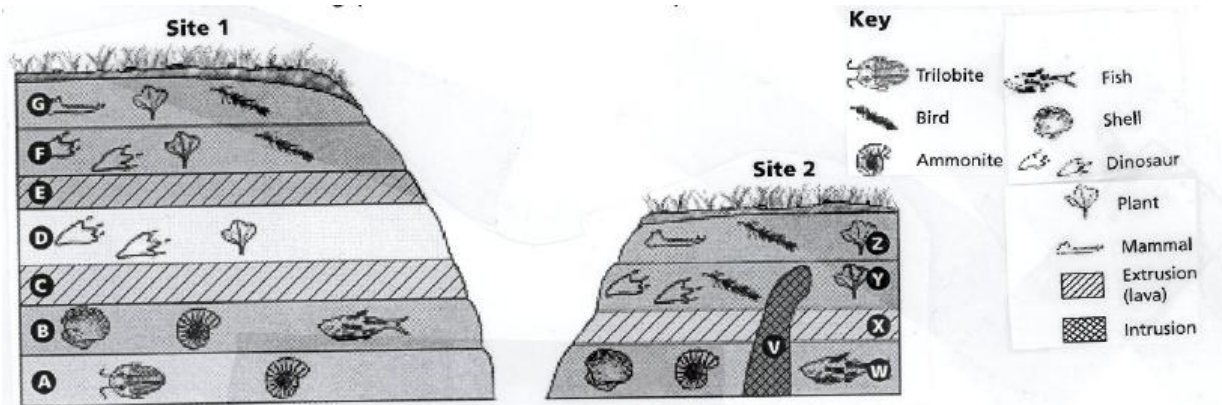
- Information about history of life and how organisms \_\_\_\_\_ over time
- Information about the changing environments on Earth, including \_\_\_\_\_
- Changing \_\_\_\_\_ types

## LAYERS OF ROCKS

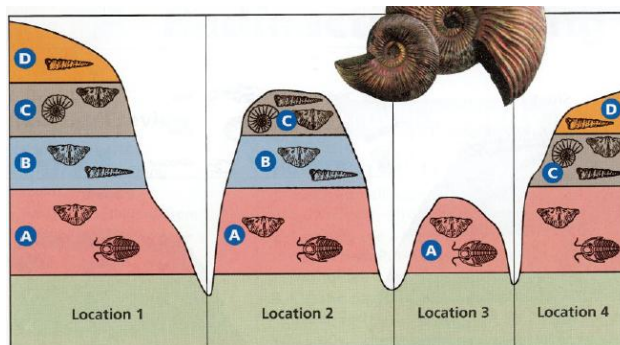
If you are a geologist who finds a fossil, you will want to know how old it is. The rock you find it in can be your clue!

The \_\_\_\_\_ of rocks tell how old a fossil is. The older rock layers are at the \_\_\_\_\_ and the younger layer is at the \_\_\_\_\_. Each higher layer (closer to the surface) is younger than the layers *below* it.

Another clue to the age of rocks comes from studying \_\_\_\_\_ and \_\_\_\_\_. Extrusions come from lava that flow onto the Earth's \_\_\_\_\_ and hardens. An extrusion is always \_\_\_\_\_ than the rocks below it. An intrusion happens when magma pushes \_\_\_\_\_ bodies of rock and hardens. An intrusion is always \_\_\_\_\_ than the rock layers *around* and *beneath* it.



1. Is the layer labeled with a V showing an extrusion or intrusion? \_\_\_\_\_
2. Which is older, V or Y? How do you know? \_\_\_\_\_
3. Which layer in Site 1 might have formed at the same time as layer W in site 2? \_\_\_\_\_



Scientists can use fossils to match up rock layers at locations that may be far apart.