

Teacher Background Information

The background information is being provided so that you feel comfortable teaching the Fossils lessons. The following information is just a fraction of what is available in books and on the internet. We encourage you and your students to do additional research on the fascinating world of fossils.

Remember to give your students time to observe, draw, reflect, write, and discuss throughout the lessons.

Types of Fossils and How They are Formed

NOT ALL DEAD ORGANISMS BECOME FOSSILS

What else is needed?

- Time—lots of time; over a million years
- Pressure—this comes from the weight of the layers that have built up on top of the organism.
- No air—(no air = no decay)
- Minerals

FOSSILS COME IN MANY FORMS

Not only can fossils be of lots of different kinds of plants and animals, they can also be formed in many different ways. No matter how they are formed, they still need to have very special conditions to ever become a fossil.

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| <p>MOLD FOSSILS</p> <p>The hard part of the fossil (like the shells or bones) dissolves and the mud or sand it was buried in hardens. This leaves a small cavity.</p> | <p>MINERALIZATION FOSSILS</p> <p>These are formed when the original material that the organism is made of is replaced by minerals. Minerals seep in and replace the hard parts of the organism turning it to stone.</p> <p>Examples of body fossils are petrified wood or bones like mammoth bones.</p> | <p>CAST FOSSILS</p> <p>Sometimes the whole cavity of a shell is filled with minerals. This makes a fossil cast of the organism.</p> |
|  | <p>CARBON FILM FOSSILS (left)</p> <p>Some animals but more often leaves are preserved as just a film of carbon on a rock. This film can sometimes leave a little impression in the rock too. The film may get washed away, but the impression will remain.</p> <p>TRACE FOSSILS (right)</p> <p>This type of fossil just shows a "trace" of the animal. Trace fossils can be things like animal burrows or their waste. Trace fossils are not fossils of the actual animal or plant.</p>  | |