2. Why do you think these three coverings can preserve animals and insects?

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3. In front of you is an insect that is in glue. How is this like a preserved fossil?

_____

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_____

Name _____

Fossil

Discovery

Log

Student Booklet

Impression Fossils

Impression fossils leave three-dimensional marks on soft soil. The soil hardens and then gets covered with more sediments, and then it becomes preserved.

Experiment #1 Trace Fossils

1. Take apart the footprint trace fossil. Describe what you see.

2. How can a footprint trace fossil found help scientists know more about this animal they are studying?

2. How is the sponge with salt in it like a mineral replacement fossil?

Preserved Fossils

Preserved fossils are fossils that are found that look just like they did when they were alive. No impressions were made by the body parts, and the bones, claws, and teeth didn't turn to stone by mineral replacement.

1. What are the three types of coverings that can preserve animals?
   - _____
   - _____
   - _____

Mineral Replacement Fossils

Mineral replacement fossils are sometimes called petrified, fossilized, or mineralized fossils. However, these words are not the right terms for what they really are. They are really called mineral replacement fossils because it is minerals that replace wood, bones, teeth, shells, claws and other hard body parts.

1. Describe how the mineral replaced bones and wood look and feel like.

2. Describe how mineral replacement fossils are made by nature.

Experiment #2 Imprint Fossils

1. Take apart the leaf imprint fossil. Describe what you see.

2. How can an imprint fossil help scientists know more abut the organism they are studying?

Experiment #3a Cast Fossils

1. Take apart the shell impression. Describe what you see.

2. How can an impression of a shell help scientists know more about the organism they are studying?

Experiment #3b Cast Fossils

Pour some sediment (Plaster of Paris) on the impression mold.

1. Take the hardened sediment (Plaster of Paris) off the impression mold. Describe what you see.

2. What you see is the cast fossil. It is made by sediments flowing into the impression and hardening. How is a cast fossil different from the real shell?