S3E2. Students will investigate fossils as evidence of organisms that lived long ago.

a. Investigate fossils by observing authentic fossils or models of fossils or view information resources about fossils as evidence of organisms that lived long ago.

b. Describe how a fossil is formed.

Fossils are the remains of dead organisms. Plants or animals can die and be buried by sediments, frozen, dried, or preserved. Over millions of years, a fossil will be formed.

**mineralized fossil:** minerals in mud replace the minerals of the organism’s hard body parts (bones or shells)

**mold fossil:** shape of a once living organism left in sediment when the rock formed. The organism breaks down (decays), leaving only the empty space shaped like the organism.

**cast fossil:** forms when mud or minerals later fill a mold fossil. It is the actual shape of the living thing.

**trace fossil:** items that were never alive; things like footprints or nests; help learn about animal behaviors

**amber fossil:** preserved organisms found in tree sap

**petrified wood:** minerals have replaced the soft parts of a once living plant

**frozen or dried fossils:** may still have hair or skin visible. They have been protected from decaying due to being frozen or dried out.

**Purpose**
- Teaches about the past history of our Earth
- Shows how animals and plants have changed (adaptations/evolution)
- Past weather conditions
- Former location of oceans, lakes, or forests
amber fossil of a spider

trace fossil of dinosaur foot print

petrified wood fossil

mold fossil of a trilobite

cast fossil of a trilobite