Fossil Fun

**Description:** Students observe a collection of fossils or fossil pictures with a magnifying glass, make clay imprints and match puzzle cards.

**Age group:** Upper elementary

**Estimated Time:** 15 minutes

**Key question:** How do scientists learn about plants and animals that no longer exist?

**Content Expectations addressed:** Species Adaptation and Survival-Species with certain traits are more likely than others to survive and have offspring in particular environments. When an environment changes, the advantage or disadvantage of the species’ characteristics can change. Extinction of a species occurs when the environment changes and the characteristics of a species are insufficient to allow survival.

Inquiry involves generating questions, conducting investigations, and developing solutions to problems through reasoning and observation.

Inquiry includes an analysis and presentation of findings that lead to future questions, research, and investigations.

Reflecting on knowledge is the application of scientific knowledge to new and different situations. Reflecting on knowledge requires careful analysis of evidence that guides decision-making and the application of science through history and within society.

**Teacher background information:** Paleontologists, geologists, biologists, and other scientists have been able to piece together the history of the Earth for the past 3.5 billion years. Most of the knowledge paleontologists have discovered is through observation and comparison of fossils with modern life forms. Fossils are the remains or traces of ancient living things. Scientists have gained an understanding of geologic occurrences that happen today, the diversity of life past and present, the existence of animals that no longer live on Earth (they are extinct), and the processes that can lead to the extinction of a species. Evidence of ancient life forms, very old life forms that existed many thousands of years ago, is preserved in fossils. Scientists compare their observations of fossils to familiar modern life forms that exist right now. Fossils represent one form of evidence that change has occurred in life forms over a time span of millions of years, and they provide evidence to interpret the nature of earlier life on Earth.

**Science process skills:** Observing, describing, questioning, comparing, inferring.
Materials: Collection of fossils, magnifying lenses, transparent plastic cups for immersing fossils, modeling clay, fossil grid game boards, fossil puzzle cards, fun fossil matching game, various objects such as shells, small plastic animals figures, leaf cookie cutters, etc.

Procedure: A collection of fossils or fossil pictures is displayed.

The supervisor reads the definition of a fossil to the students. (One simple definition is evidence of ancient plants or animals found in rocks.)

The supervisor demonstrates the correct way to use a magnifying glass. The magnifying glass is placed between the eye and the object you are observing. The glass is slowly moved toward or away from the eye until the object can be clearly seen.

The students begin examining the fossils with their lenses.

The supervisor gives directions for making an imprint of a shell or other small object in clay. You take a small piece of clay and flatten it. Then press the object onto the clay. Pull the object away from the clay and you will observe an imprint of the object. This is similar to one type of fossil.

Students are given 9 laminated puzzle cards that contain fossil related sketches. They are also given a fossil grid. They attempt to place the puzzle cards in the correct position on the grid. The correct answers are given by the supervisor.