

Fossil Hunt

Goals: Students will search for and identify fossils and recognize that they came from a time (300 million years ago) when most of New Mexico was an ocean [The Pennsylvanian / Carboniferous Period]. They will realize that ecosystems change over time and are always changing.

Time: 30 – 45 min.

Materials: Hand-held magnifying lenses (at least 1 per group), Fossil Hunt activity sheets, pencil and paper (for students).

Procedure: Organize the students into groups of 4 –5. Explain what a hypothesis is, and have each student write a hypothesis down about what type of ecosystem was in New Mexico 300 million years ago. Then explain that we will be doing a “fossil hunt” to discover the answer. Each group should receive at least one hand-held magnifying lens and one fossil hunt activity sheet. In their groups, the students will look for fossils and, using the fossil hunt sheets, record what type of and how many fossils they find. Show them the boundaries of the “hunt”, which in the fossil hunt area are the trees lining the rocky slope and the first power pole they come to up the hill. After a 15 - minute hunt, call the students back to a pre-arranged spot to go over their findings. Throughout the hunt it is important to help the students sort out their findings. When reviewing, be sure to have the students understand that the fossils they found were indeed 300 million years old and came from an ocean ecosystem, and that ecosystems are always changing.

Variations and Extensions: The fossil hunt can be done anywhere where there are enough fossils to satisfy an entire class’ needs, and can be done without magnifying lenses and the activity sheets to simply show the students the oceanic fossils. Having the students draw their hypothesis and then draw their conclusion (about what type of ecosystem was found at the SMNHC 250 million years ago) are great alternatives, as well as using this activity to model the scientific method (observe, hypothesis, collect data, analyze data (check hypothesis), and draw a conclusion).

Background Information: The instructor should be familiar with all of the fossils found in the area of the SMNHC and be able to identify them with some certainty. The fossil hunt activity sheet is a great resource for learning.

Other Considerations: Most good fossil specimens are found at the bottom of the hill (rather than at the top) of the fossil hunt area.