

# **PALEONTOLOGY**

Paleontology is an interdisciplinary science that investigates ancient life on earth through the study of fossils. Understanding geological, ecological, and biological principles, as well as the process of fossilization, is crucial in the interpretation of ancient ecosystems and environments. In this module students will learn about geology and ecology and will be exposed to the skills and concepts used by paleontologists through participation in pre-visit development lessons and activities, a field or laboratory exploration at Petrified Forest National Park, and a final research project presented at school.

## **GOALS**

In this module students will:

- develop an understanding of the science of paleontology by learning the skills and concepts involved;
- be introduced to geological time periods represented at the park;
- explore an aspect of paleontology through participation in a field or laboratory exploration and development of student research projects;
- become aware of the importance of preservation of paleontological resources; and
- understand the role of the National Park Service in the preservation and protection of natural and cultural resources.

## **OBJECTIVES**

By the end of this module, students will be able to:

- describe paleontology as the study of ancient life on earth through fossils;
- list geological time periods represented at the park;
- explain why choices have consequences;
- use scientific methods adopted by paleontologists;
- recognize that paleontological resources are nonrenewable;
- document threats to paleontological resources and provide ideas on how to protect them; and
- describe at least one thing they learned about Petrified Forest National Park and/or the National Park Service.

## **MODULE DESIGN**

Each pre-visit lesson develops the concepts and skills needed by students to choose and participate in one of the following field explorations:

- Petrified Tree Orientation
- Fossil Excavation
- Studying Fossils in the Laboratory