

INTRODUCTORY ACTIVITY:

Where are Fossils Located?


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Objective: Learners will analyze maps to identify the distribution of fossils and fossil sites across the United States.

Introduction: Many rocks within the United States contain fossils, which are evidence of past ecosystems, biodiversity, and even human activity. Studying fossils helps us to understand how Earth has changed and the effects those changes have had on living organisms. The National Park Service (NPS) has 288 parks that contain fossil resources. These fossils represent the variety of organisms that have lived throughout every major geologic time from the Proterozoic (2.5 billion to 539 million years ago [mya]) all the way up to Quaternary (2.58 mya to today).

Have learners:

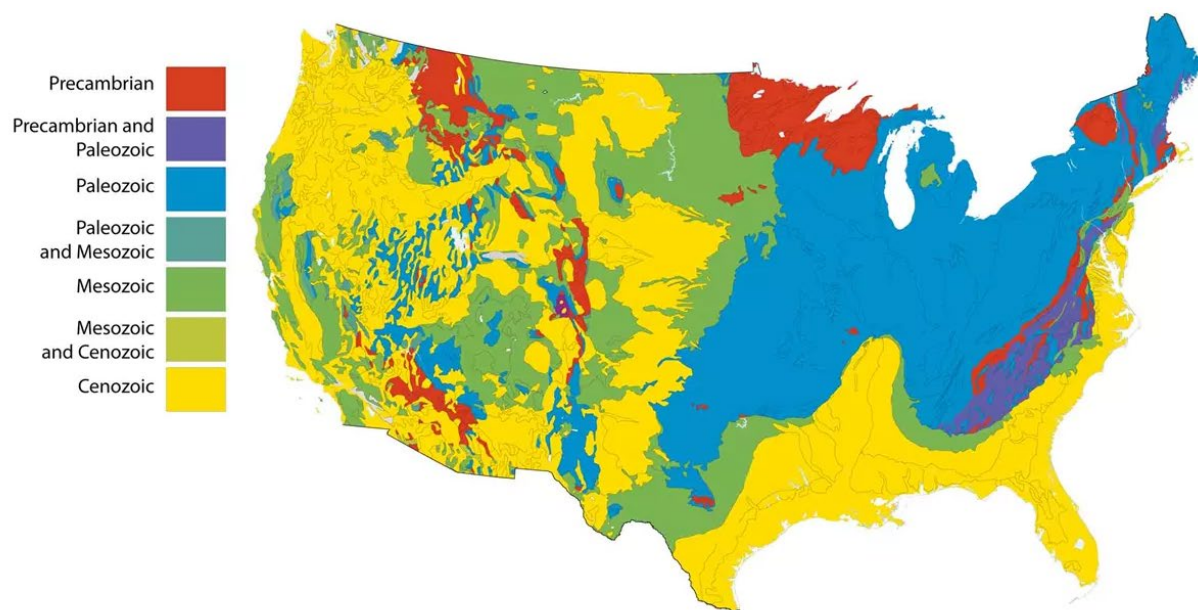
1. Study the map of the age of rocks throughout the United States. The key is in order of geologic age, starting with the oldest at the top (Precambrian), and getting younger as you go down the list. Discuss:
 - ▶ Describe any patterns or trends that you see.
 - ▶ How do fossils from different geological periods relate to one another?
 - ▶ In which rocks do you think you would find fossils that look least like organisms living today? Why do you think this?
 2. Study the map of **National Park Service Units with Paleontological Resources**.
 - ▶ Describe any patterns or trends that you see.
 - ▶ Compare the map of NPS Units with fossils to the map that shows the ages of rocks. What age fossils do you think are most common in NPS Units? Use evidence from the maps to support your answer.
 - ▶ Can you think of some reasons there might be fossils within some National Parks that do not match the ages of rocks located there? Discuss how some areas in which “young” (Quaternary age) surface deposits that contain fossils are not shown on the bedrock map, or the stones used in the construction of buildings on NPS lands may contain fossils from geologic ages that differ from those of the bedrock.
 - ▶ How many NPS Units with fossils are close to where you live? What types of fossils do you think they have?
- a. Explore the National Park Service Master List of parks with fossil resources:
 - i. Look through the table “Master List of Parks with Fossil Resources.”

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- Developed in collaboration with
-
- the
- American Geosciences Institute**

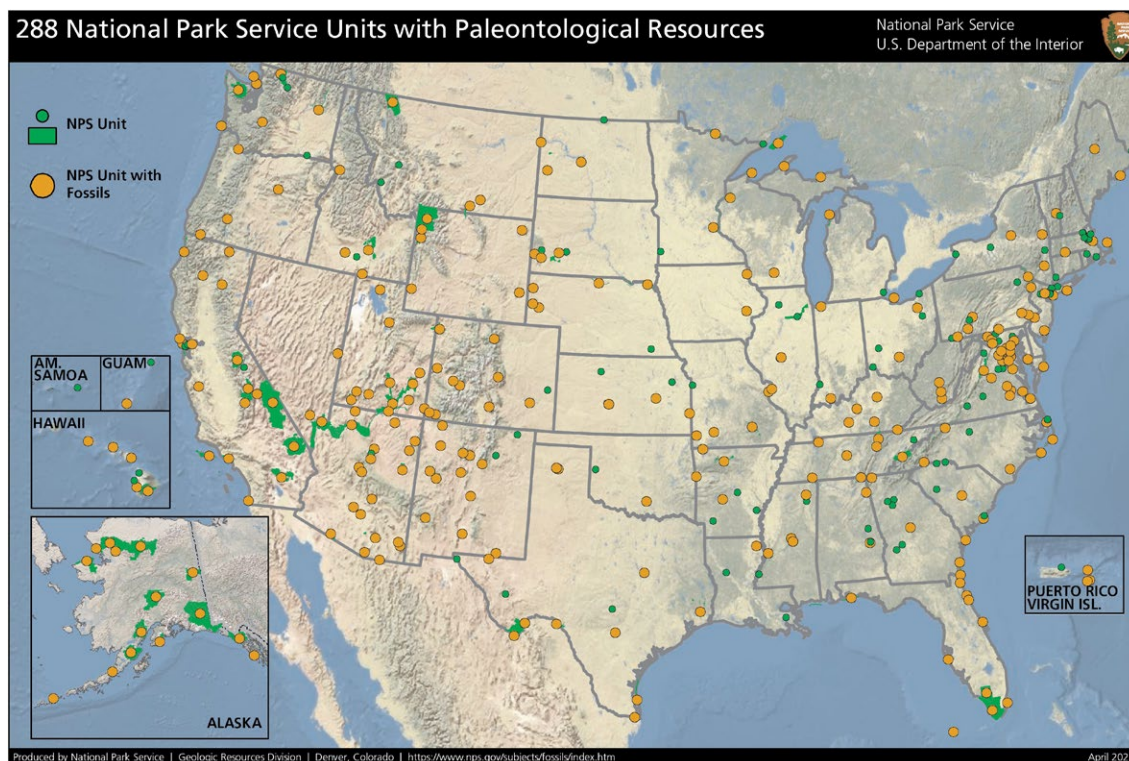
HANDOUT: Where are Fossils Located?



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