Pre-Visit Lesson #2: Introduction to Pinnacles National Park

Grades: 4-8 (suggested)	Time Allotment: 50-60 mins	Subject: Science
Guiding Question/ Phenomena: What are the natural phenomena that are preserved and protected at Pinnacles National Park?	NGSS Performance Expectation(s): - 4-ESS1-1. Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time. - MS-ESS2-2. Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.	

NGSS DCI(s):

- ESS1.C The History of Planet Earth- Local, regional, and global patterns of rock formations reveal changes over time due to earth forces, such as earthquakes. The presence and location of certain fossil types indicate the order in which rock layers were formed. (4-ESS1-1)
- ESS2.A: Earth Materials and Systems- Rainfall helps to shape the land and affects the types of living things found in a region. Water, ice, wind, living organisms, and gravity break rocks, soils, and sediments into smaller particles and move them around. (4-ESS2-1)
- ESS2.A: Earth's Materials and Systems- The planet's systems interact over scales that range from microscopic to global in size, and they operate over fractions of a second to billions of years. These interactions have shaped Earth's history and will determine its future. (MS-ESS2-2)
- ESS2.C: The Roles of Water in Earth's Surface Processes- Water's movements—both on the land and underground—cause weathering and erosion, which change the land's surface features and create underground formations. (MS-ESS2-2)

Student Learning Goals

- -Students will be able to identify and describe the natural phenomena that are preserved and protected at Pinnacles NP by writing a summary to their notes.
- -Students will be able to identify and describe the behavior expectations during a field trip at Pinnacles NP by sharing at least one expectation with their partner.

Supporting Instructional Materials:

- Introduction to Pinnacles Slides (SPANISH Version)
- Introduction to Pinnacles Note Taking Document (SPANISH Version)

Activities and Sequence:

Overview: This lesson will provide an introduction to the natural resources at Pinnacles National Park, as well as behavior and safety guidelines while visiting the park. This lesson should be done a day or two before going on the Pinnacles field trip.

Background Knowledge: Students should have learned about Pinnacles National Park and the geology of the Pinnacles formations (from Pre-visit Lesson 1: <u>Pinnacles Geology</u>).

Hook: Class discussion: Have you ever been to a National Park? Which one(s)? Why do we have National Parks? What do YOU think they are for? If we were to visit Pinnacles National Park, what types of things do you think we would see?

Lesson: Use the <u>Introduction to Pinnacles Slides</u> and <u>Introduction to Pinnacles Note Taking Document</u> to conduct the lesson. Relevant information for the slides are included in the "notes" section of the slides.

- Go over the slides with students (either projected to the whole class or via personal device).
- Use the "Notes" section of the slides as a guide to discuss the pictures on each slide.

- Have students record the answers to the questions on the Note Taking Document.
- Be sure to emphasize the safety and behavior expectations section of the slides.
- Have students complete the summary individually.
- Closure: Students should share at least one of the behavior expectations with their partner. Call on random students to share what they said or what their partner said.