

Park Ranger: Lighting Up a Cave

NGSS Standard: 1-PS4-2



Adventure Description:

In this adventure, you will think like a park ranger and compare what caves look like with and without light!



Activity

Step 1: Background on Park Rangers and Caves (5 minutes)

- Play [Video: Lighting Up a Cave](#).
- As a class, discuss why park rangers need light to see inside a cave. Explain that park rangers want to see what animals live in the cave!
- Next, discuss what would happen if park rangers didn't have light to see inside the cave. Explain that without light, park rangers wouldn't be able to see where they are walking in the cave and wouldn't be able to see animals who live in the cave!

Step 2: Build a Cave (10-15 minutes)

- Explain to students that they will build their own caves. Then, they will look inside their caves with and without light.
- Show students [Handout: Steps to Building a Cave](#). As a class, discuss the steps that students will take to build their cave.
- Provide each student with art supplies and building materials (any art supplies and building materials work! Some suggestions are: play-doh, cardboard, pipe cleaners).
- Explain to students that they will now build their own cave. They need to make sure that their cave is very dark on the inside! When students are finished building their caves, they should build an animal to live inside it!

Please contact Allison Bischoff, Director of Customer Service, at allison@rozzylearningcompany.com or 314-272-2560 with questions.



Step 3: Looking at a Cave Without Light (5-10 minutes)

- Explain to students that they will now switch seats so they can look inside other students' caves.
- Explain to students that they will look inside the cave on the desk they are at. They will first look inside the cave without any light.
- Turn off the lights in the room- this will make the room (and the caves) dark!
- Have students look inside the cave. Students should NOT touch the inside of the cave. Instead, they should use their eyes to carefully look inside.
- Have students fill out the first page on [Handout: Looking in Caves](#). Allow students 5 minutes to look inside a cave and draw what they see.

Step 4: Looking at a Cave With Light (5-10 minutes)

- Next, explain to students that they will be looking in a cave with light.
- Turn the lights back on.
- Have students look inside the cave.
- Have students fill out the second page on [Handout: Looking in Caves](#).
- As a class, discuss how it is different looking in a cave with and without light. Is it easier to see the animal in the cave when the cave is dark or light?
- Extra Time? Provide students with flashlights so they can create light when the lights are off.

Materials List

Provided online:

- Video: Lighting Up a Cave
- Handout: Steps to Build a Cave
- Handout: Looking in Caves

Not provided:

- Play doh
- Art supplies and building materials
- Flashlights (optional)

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