

INTRODUCTION TO CANYONS (GRADES K-2)

Christina Fearon
Fall 2008

Overview:

This lesson introduces students to canyons and has them consider what canyons are, and how they are formed. They will brainstorm what they know about canyons. They will look at photographs of canyons and discuss similarities and differences between them. They will (hopefully) discover that rivers often carve canyons. They will create their own tiny canyons using dirt and water. They will conclude by drawing pictures of their own canyon creations before the water, during the water, and after the water. They will also write reflections about what they have observed. These reflections will be shared with classmates.

Connections to the Curriculum:

Geography, earth sciences, geology

Connections to the Vermont GLE's:

H&SS1-2:1 – 1-2:7, H&SS1-2:11, H&SS1-2:12

Time:

One to two hours

Materials Required:

- Map of the United States, showing the location of the Canyons
- Internet access
- Books about canyons
- Pictures of canyons
- Canyon music: wind, rain, river
- Chart paper and markers
- Journals or journal paper
- Bins for dirt and water or the outdoors as available

Objectives: Students will

- compare photographs of canyons;
- compare similarities and differences of those canyons
- brainstorm how the canyons might have been created;
- discuss how the rivers carve the canyons
- conduct a canyon creation experiment
- draw pictures of the canyon they created with captions explaining how it was formed and what they discovered
- listen to canyon music during independent work time

Geographic Skills:

Acquiring Geographic Information
Organizing Geographic Information
Answering Geographic Questions
Analyzing Geographic Information

Suggested Procedure

Opening:

Write the word "canyon" on the board.

- Ask: What is a canyon?
Where do you find canyons?
What else do you know about canyons?

Explain that a canyon is a deep valley with very steep sides, usually carved by a river.

Development:

Have students look at pictures of canyons, and discuss what they have in common and how they are different:

- Ask:
- How do you think canyons formed?
 - How long do you think it takes?
 - What do you need to make a canyon?
 - Do we see canyons where we live?

Explain that canyons are very different from other physical features students may be familiar with.

Point out the location of the canyons on a United States map.

Ask students to look carefully at the photograph to find the rivers at the bottom of the canyons.

Explain that over millions of years, the rivers carved the canyons out of the rock. Provide these analogies to help students understand this concept:

- After it rains hard, you can sometimes see tiny "rivers" carving into the dirt. The faster the water moves, the deeper it can carve these little "rivers."
- If you've ever built a sandcastle at the beach, the water eventually comes up and washes the sandcastle away.
- If there's a river in your town, you can go there and look at the riverbanks. These banks have been carved out by the river over time, much as rivers have carved these canyons.

Conduct the experiment: Have the students work in pairs to create mini canyons with water and dirt. They will draw pictures of the canyon they created with captions explaining how it was formed and what they discovered. This information will be shared with classmates. Students will walk outside to discover mini canyons and then be given time to create more canyons. They may work in pairs or individually.

Closing:

Students will be read to and read on their own from books about canyons. They will use the internet, maps, and other resources to discover facts about canyons. They will brainstorm as a class:

- What do we know now about canyons? Did we learn anything new?
What impact do people have on canyons?
What are the consequences of that impact?

Extension:

Have children paint or create canyons of your own out of different materials.