

Family Field Trip

Busy as a Beaver

National Park Service
U. S. Department of the Interior



Rocky Mountain National Park
Colorado

Plan and Prepare:

Always follow the guidance of the CDC, local and state authorities when planning your activities. Check [current road and weather conditions](#) in the park and be prepared for the weather. Download a map of the park [here](#).

Respect Wildlife:

Watch wildlife from a distance. Never feed animals.

Dispose of Waste Properly:

Use restrooms or step away from the trail and bury waste at least 6 inches deep. Carry out all trash including toilet paper.

Leave What You Find:

This includes rocks, pinecones, and flowers.

Be Considerate of Other Visitors:

Share the trail and use quiet voices.



Welcome! This family field trip guide provides an opportunity for parents and their students to explore Rocky Mountain National Park and connect learning to Colorado State Educational Standards. While each activity is listed as a specific grade level, the whole family can participate. Parents are encouraged to read the additional resources and bring the materials listed so that they can support their students' learning. During busy times, arriving early avoids crowds.

Supported Grade Level Standard: 5th Grade Earth and Space Science 3.

"Earth's major systems (geosphere, hydrosphere, atmosphere & biosphere) interact in multiple ways."

Objective: Students will illustrate or write about the beavers' influence on the geosphere, hydrosphere, and biosphere.

Duration: 90 minutes

Location: Sprague Lake and Upper Beaver Meadows (or other elk enclosure location)

Materials: The following Busy Beaver Impacts page (printed or downloaded), writing or drawing implement, a writing surface like a clipboard, and the [Beavers](#) reading material.

Engage: Ask your student(s) what they know about beavers. Have them tell you what they think beavers and humans have in common. Tell your students that today you are going to explore an abandoned beaver dam to see if you can observe the impact of the beaver dam on the land, water, plants, and animals. Before you head out on your field trip, read this information about [Beavers](#). Bring the printed handout and something to write with and on.

Explore: Plan to arrive at Sprague Lake early or late in the day during the busy summer and fall season. Once at the lake, take the wheelchair accessible path to the right. Within a few minutes of walking you will arrive at a boardwalk. This walk goes over a marshy area with an abandoned beaver dam to your right. After you cross the boardwalk, turn right to see the beaver dam area. If it's safe for you to do so, walk up the hill a short way to look down on the beaver pond. This is where your student can complete the left half of the handout, Busy Beaver Impacts. Notice and record (in words and/or pictures) what the water and land looks like. Then notice and record any animals and plants observed in the beaver pond area. Sitting quietly and observing closely may increase your chances of seeing wildlife. Continue your walk around Sprague Lake until you come to the bridge where the water flows out of the lake in a stream. Complete the right side of the handout here.

Explain: Discuss the similarities and differences between the two locations. As a keystone species, beavers have a direct impact on the water or hydrosphere. Beaver dams store water that would otherwise runoff. This increases the available water all season long which in turn allows for a wider variety of plants and provides habitat for many species of animals. Once a beaver dam is abandoned, the pond will gradually fill in with silt, eventually creating a new meadow. In this way, the beaver is an important and valuable species that changes the geosphere, hydrosphere, and biosphere. In Rocky Mountain National Park, there are very few beavers. Scientists believe that this may be due to lack of building and eating materials. Elk and beaver both like willows and aspens. The abundant elk may be eating the beaver out of a place to live and build a dam. Elk enclosures have been constructed to allow willow and aspen to recover in hopes that beavers will return to Rocky Mountain in greater numbers.

Elaborate: You can view elk enclosures throughout the park. One area is Upper Beaver Meadows Road. Once in the picnic area look downhill to the fenced area. Find a gate and enter the environment that may encourage the beavers to return. What do you think will happen?

Evaluate: Ask your student to complete and discuss the bottom three questions on the handout.

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Busy Beaver Impacts

Areas where beavers HAVE built dams	Areas with NO beaver dams
Observation #1 Hydrosphere (water)	Observation #1 Hydrosphere (water)
Observation #2 Geosphere (land)	Observation #2 Geosphere (land)
Observation #3 Biosphere (plants)	Observation #3 Biosphere (plants)
Observation #4 Biosphere (animals)	Observation #4 Biosphere (animals)

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What changes do beavers cause to the hydrosphere?

What changes do the beavers cause to the geosphere?

What changes do the beavers cause to the biosphere?
