

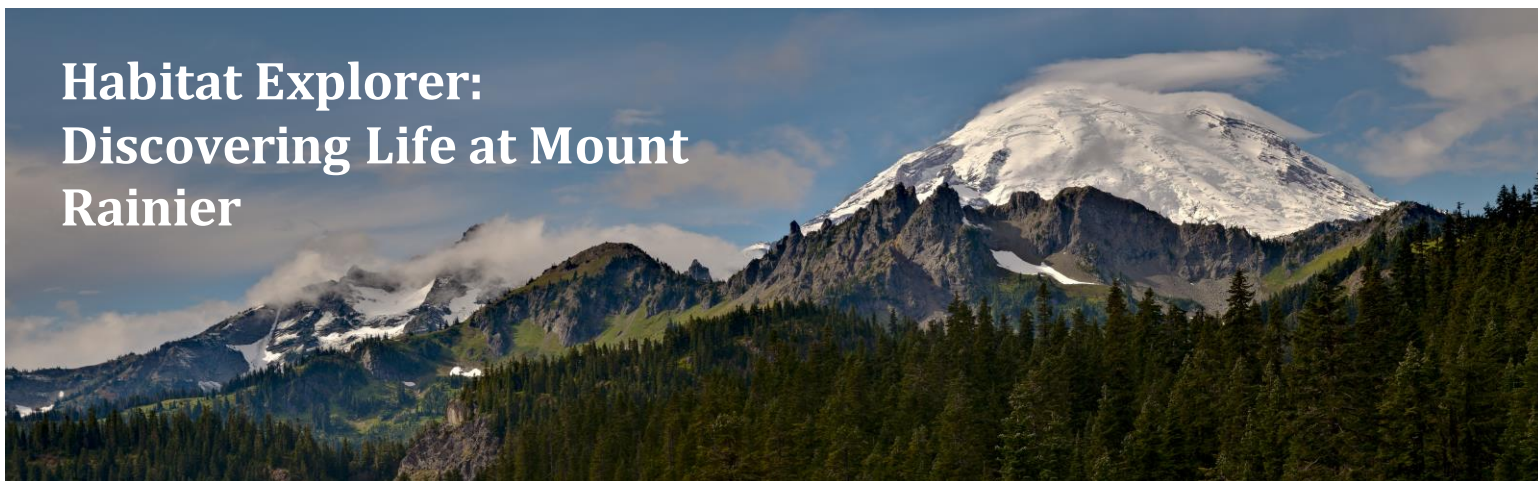
Mount Rainier

National Park Service
U.S. Department of the Interior

Mount Rainier National Park
Ashford, WA



Habitat Explorer: Discovering Life at Mount Rainier



Activity: Habitat Explorer

School Subjects: Life Science

Grade Level: K-2

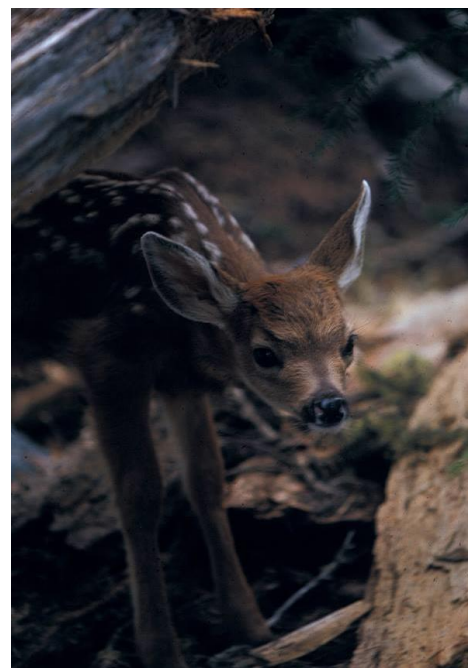
Time: 25-35 minutes with up to 10 minutes of Q&A

Common Core Standards Addressed

K-LS1-1	From Molecules to Organisms
K-ESS2-2	Earth Systems
K-ESS3-1	Earth and Human Activity
K-PS3-1	Energy
1-LS1-1	From Molecules to Organisms
2-LS4-1	Biological Evolution

Lesson Overview

From the high cold rocky slopes to the lush primeval forests, life can be found in all shapes and sizes. Using distance learning technology, teachers and students can connect with Mount Rainier's Park Rangers and learn about the dynamic life projected in pictures, sounds, and evidence based learning. This program will cover the different parts of a habitat, and the three life zones contained within Mount Rainier National Park. In each life zone, the students will be presented with clues and asked to decipher the habitat for plants and animals with photo, audio and animal props.



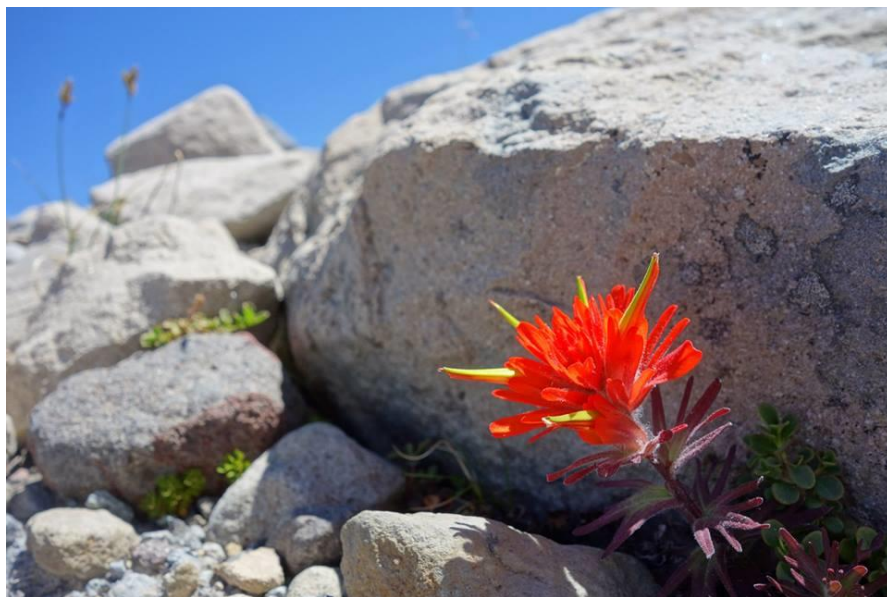
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Lesson Objectives

By the end of the lesson, students will be able to:

- Describe and contrast the 3 life zones in Mount Rainier.
- Characterize plant's and animal's habitat and compare their life needs.
- Classify animals in terms of carnivore/herbivore/omnivore and examine how plants and animals are shaped by the environment.
- Relate the characteristics of plants and animals to the students own life needs.



Background Information

Human beings are not alone in this world. Living things are in abundance here at Mount Rainier National Park. From the mountain goats that live high up the mountain, to the sword fern that thrives in the low forest; many different plants and animals in all shapes and sizes find their home within Mount Rainier National Park. But what is a habitat? A habitat involves the life needs for a living thing; its food, water, shelter, and space. Any of these four components can limit the abundance or distribution of plants and animals within their habitat.

Plants and animals are found in nearly every part of Mount Rainier National Park, but not all their habitats are the same. In fact, they can be quite different! Here, scientists have grouped those with similar habitats into three life zones: the forest (elevation 1,700 – 5,000 ft.), subalpine (elevation 5,000 – 7,000 ft.), and alpine (elevation 7,000 ft. +). Every organism has certain traits and behaviors that allow it to live in a particular environment.

The forest life zone makes a great quantity of life. From the old growth forests to the lowland meadows, this zone comprises up 58% of the park. These communities are generally wet green and host shade tolerate plants on the forest floor. Old growth forests refer to the class of trees a hundred or more years old. Wood on the forest floor in the form of nurse logs creates a variety of habitats for



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several different types of organisms. Standing dead trees or snags provide food and shelters for many organisms including decomposers.

The subalpine is a special zone, and Mount Rainier's is world renowned for our wildflower meadows. Due to the orographic effect this elevation receives the greatest amount of precipitation, intense wind, sun, and snow. This makes the life that lives here very special. Vegetation in this zone is a mosaic of tree clumps and herbaceous meadows extending from forest line to tree line, about 23% of the park. The animals

found here usually migrate from lower zones, and the ones who stay depend on food they've cached during the snow free periods.

The alpine zone extends from tree line to the mountain's summit. The alpine is typically snow and ice covered, making life here difficult. Those who do survive, like the alpine heather beds and short lived watermelon snow, are very unique. In total, the distinctive nature of Mount Rainier is due to how different the life zones are from each other, and how quickly it takes to travel from one to the next. The change is actually so extreme that traveling from the Nisqually entrance to the summit is the same as traveling from Seattle to the Arctic Circle. From a snowy mountain to a meadow filled with wild flowers to a green dense forest, Mount Rainier National Park hosts a variety of unique life due to its variety in temperature, moisture, and elevation.

To learn more about Mount Rainier's life, please visit any of the supplemental materials.

Supplemental Materials

In addition to the distance learning requirements, please feel free to explore prior to the program:

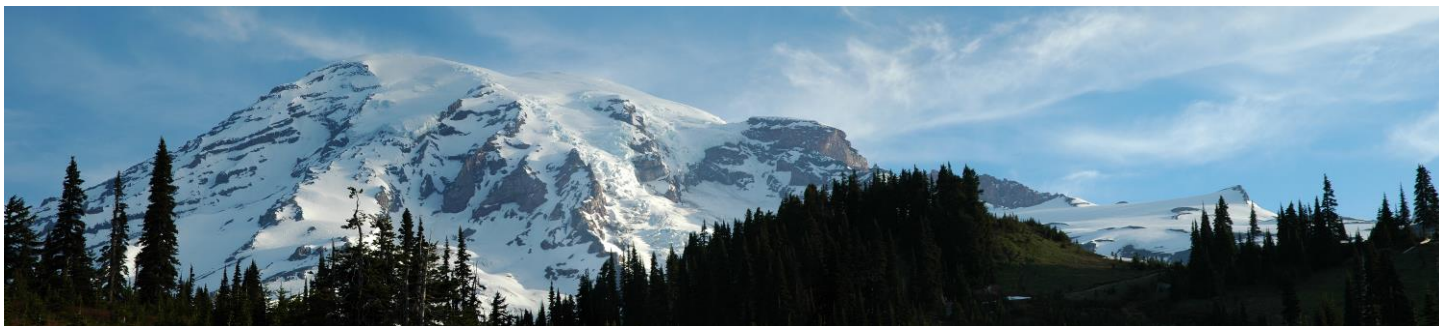
www.nps.gov/mora

Videos: <http://www.nps.gov/mora/learn/photosmultimedia/visit-mount-rainier.htm>

"Just Sayin" or "Journey around the Mountain: Exploring Mount Rainier National Park"

Youtube: <https://www.youtube.com/user/MountRainierNPS/videos>

Short "mountain moments" videos



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Procedure

Prior to the program: Have the students complete the pre-program activity. Introduce the state of Washington and the some of the plants and animals found at Mount Rainier. This can be done through videos and web materials (see Supplemental Materials). Look at the park map and identify major areas and features of the park like the summit, roads, trails, and general size of the park. Have the students generate questions for the ranger to be asked after the program or as time allows. The students will be prompted throughout the program, so be sure to brief the students on how to answer questions and speak clearly into the microphone or speaker. Many times they will be able to answer loudly in unison.

During the program: Have the students seated so wherever they are they can see the video screen. The ranger will share pictures, graphics, audio, skulls, furs, and other props in an interactive program.

Assessment

Pre Lesson: What's my habitat? The students with prompting will draw what they need to survive. After, the students will compare and contrast with animals and hypothesis that even though different, they all include homes and similar basic things.

Post Lesson: Where do I fit? Understanding what a habitat is, students will classify animals and their habitats to see they all include the same basic things. Using predetermined categories, the students will categorize animals that live in Mount Rainier's life zones.



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