



Mount Rainier Institute Program Overview

Mount Rainier Institute provides outstanding nature-based education experiences that are rooted in science and nurture the next generation of environmental stewards and leaders. In Partnership with the National Park Service, Mount Rainier Institute uses the natural and cultural resources of Mount Rainier National Park and University of Washington's Pack Forest to help students learn and to develop their relationship with the environment through an educational adventure they will remember for a lifetime.

Mount Rainier Institute programs aim to provide an appropriate mix between interdisciplinary content with science process skills such as observation, inquiry, analysis, and supporting claims with evidence. Mount Rainier Institute educators will work with teachers to better integrate the Mount Rainier Institute experience into their classroom curriculum. Possible focus areas include:

Forest Ecology

Students explore the intricacies and interconnections of forest ecosystems and how humans manage forests for multiple benefits. Mount Rainier Institute's main campus is located at Pack Forest which contains both managed forest ecosystems and outstanding examples of old growth. Students conduct research projects that explore the differences between different aged forests and a variety of plant and animal species interrelationships.

Watershed Ecology

Students learn about aquatic ecosystems and the importance of salmon habitat. Students conduct field investigations that can include: macro-invertebrate studies, water chemistry, and physical characteristics of riparian zones. On a trip to Mount Rainier National Park, students see "where the rivers begin" and learn how water shapes the land.

Earth Sciences

Students explore how fire and ice have shaped the land and with it human history. They discover signs of past geological hazards that have occurred on the slopes of Mount Rainier, and see evidence of the awesome power of glaciers. Students also investigate the relationships between abiotic and biotic factors.

EVENING PROGRAMS:

In addition to choosing a curriculum track for your visit, you will also select *your Evening Programs*. Current options for these include:

Guest Presenters

Field Science Researchers: Mount Rainier Institute's connection with the National Park Service and University of Washington provides the opportunity to learn directly from scientists doing research in Mount Rainier National Park and Pack Forest. With enough advance notice we may be able to set up a program with a researcher.

EcoSel—Students learn explore what they value about nature through this fun and exciting activity. Student will need to make hard choices about how they would manage natural resources in an auction of resource management plans.

Night Hikes – Students challenge themselves to explore nature at night. In field groups students learn about nocturnal adaptations, how humans adapt to the darkness, and astronomy.

Predator Prey Games—This active game puts students in the roles of herbivores, omnivores, and carnivores. They search through their habitat for the food and water they need, while hunting and being hunted by each other. Students learn about food webs and predator-prey relationships and how challenging it can be to survive in nature.

Values of the Past – Students will be introduced to the human history of the Mount Rainier region by going to a “time warp” party where they meet historical figures and learn how people valued nature in the past.

Opening & Closing Campfire – Sing songs, tell stories and reflect around a campfire. Campfires are a fantastic way to end the day and build community, and are a great way to begin to close the program on the last evening.

PRE-TRIP VISIT

A pre-trip visit by Mount Rainier Institute staff will help to prepare students for the program. Pre-trip visits can begin to engage students academically and get them ready for life at Mount Rainier Institute.

POST-TRIP VISIT

A Post-trip visit is designed to connect the Mount Rainier Institute experience back to their home communities, evaluate the program, and strengthen the connection to school curriculum.

Sample Program Schedule

10:15 Opening 15 min

- Students will get off the bus unload luggage into welcome shelter, and are immediately engaged in an active introduction to Mount Rainier Institute.
- Students will be welcomed to the Mount Rainier Institute and introduced to the staff.

10:30 Orientation-1 hour

- Pass out student journals/workbooks
- Students are introduced to the 1 rule at Mount Rainier Institute – RESPECT
- Students are divided into trial groups for the first time.
- Gear rotation-students get checked for proper gear –rain gear, warm layers, water bottle, backpack, etc.

Chaperones are getting a separate orientation during this time-when both orientations are complete-student are put into cabin groups and have a chance to move luggage to their cabin and meet there chaperones.

12pm Dining Lodge Orientation and Lunch

- Students are introduced to the food waste challenge; students will explain why food should not be wasted.
- At the end of the meal, students will get relevant announcements and get a presentation on the weather from the weather group for that meal.

12:45 After Lunch Energizer 15 min –last minute gear check

Introductory Lesson-Introduction to different land uses

- In field groups students participate in teambuilding activities that emphasize the need to work together.
- Students are taken to various stops where there is an activity to help them explore each land uses or Nature Benefits
 - Recreation (hiking, biking, fishing, hunting, camping)
 - Wildlife habitat restoration/preservation
 - Timber Harvesting/Resource extraction
- Students will be able to identify different benefits of the land and how different uses may interact with each other
- Students are asked “how do we make these choices”-how do they make choices about day to day things?

4:30-5:30 Free time

5:30-6:30 Dinner

6:30- 8:30 pm Evening Program-Historic land uses- Values of the Past-

- Students will be introduced to some of the historical figures associated with Mount Rainier region and will be introduced to different ways of valuing the area and reinforcing the concept of Nature Benefits introduced earlier in the day

DAY 2 (May be switched with Day 3 depending on group size and Mount Rainier conditions)

7:45-Breakfast

8:30 Field science Introduction

- Scientific method
- Each group is then sent out to do a structured inquiry field science investigation.
 - Water quality and salmon restoration related to habitat preservation.

- Possible salmon monitoring comparisons (what are best nesting sites for salmon, what are habitat characteristics.
- Old growth diversity study/comparison
- Carbon sequestration comparison

12pm Lunch

Continue field investigation

3:30 begin to analyze data

4:30-5:30 Free time

5:30-6:30 Dinner

6:30- 8:30 pm Evening –science symposium

DAY 3

7:45-Breakfast

8:30 Depart for MORA

9:15 Arrive at Nisqually gate

9:15 National Park Service and Recreation

- Students learn about the NPS management objectives and understand the mission of NPS.
- Students learn about specific management challenges facing MORA

12pm Lunch

12:30 The power of the mountain

- Students learn about natural processes that have shaped the land.
- Impact of flooding
- Volcanic land forms
- Observe Nisqually glacier and discuss origins of the river and source of fresh water
- Learn about glacial land forms parts of glacier, how glaciers form etc.
- Students find a solo spot given journal prompts to reflect on beauty of area

4:00 Depart for Pack Forest

5:00-6:00 Free time

6:00-7:00 Dinner

7:00- 8:30 Closing campfire/cabin or trial group skits-slide show-Art/music/drama

DAY 4

7:45-Breakfast

8:30 Group Energizers

9:00 Final Hike

Journal time

Solo spot

Trail group debrief

11:00 Closing Ceremonies

11:30 Lunch & Depart