



NORTH CASCADES INSTITUTE

Mountain School

**HANDS-ON ENVIRONMENTAL
EDUCATION AND SCIENCE
IN THE NORTH CASCADES FOR
4TH TO 12TH GRADE STUDENTS**



Dear Educator,

Thank you for your interest in Mountain School, our award-winning environmental education program for elementary, middle and high school students. Established in 1990, it has become a national model for teaching young people about the natural world that surrounds them through intimate, direct learning experiences in the dramatic wilderness setting of the North Cascades.

Why take your students to the mountains to learn? A growing body of educational research shows that today's generation is more "plugged in" to electronics – but less tuned into the natural world – than any generation in history. As opportunities for direct experiences in nature have dwindled, the rate of clinical depression, obesity and learning disabilities has skyrocketed.

High quality interdisciplinary environmental education that includes direct experiences in the natural world has been shown to improve standardized test scores, grade point averages and decision-making skills. In fact, more than 90 percent of teachers who participate in Mountain School report their students showed improved problem solving and critical thinking skills. As one teacher remarked, "Today's children are experience-poor. Mountain School helps fill a void in their lives. They never forget it."

**FROM THE
EDUCATION DIRECTOR**
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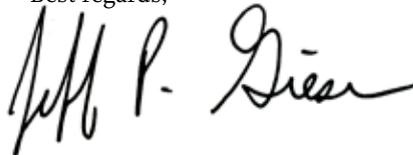
Mountain School curriculum is aligned with the Washington Assessment of Student Learning (WASL), Grade Level Expectations (GLEs) and Essential Academic Learning Requirements (EALRs). We provide excellent curriculum materials for pre- and post-Mountain School use to integrate study of the North Cascades into classroom activities.

While staying at the North Cascades Environmental Learning Center, your students will receive the highest quality educational experience possible. They will experience one of the wildest, most biologically diverse landscapes in North America – under the guidance of knowledgeable mentors – and discover for themselves the powerful connections between their quality of life, their community and the environment.

At North Cascades Institute, we believe that your students deserve an opportunity to explore their natural heritage first-hand, out-of-doors with good friends and caring adults. Please join us and sign your class up today.

Hope to see you in the mountains!

Best regards,



Jeff Giesen
Education Director



BRING YOUR CLASS
TO THE NORTH CASCADES

PHOTO © CAROLYN WATERS

Mountain School is a nationally recognized environmental education program offered by North Cascades Institute in cooperation with North Cascades National Park. Mountain School students come to the North Cascades with their school class, teacher and chaperones to learn about the ecosystems, geology and natural and cultural history of the mountains. Mountain School gives young people an experience they will remember forever – a chance to increase their knowledge of the world with their bodies, minds and spirits.

MOUNTAIN SCHOOL

AT NORTH CASCADES ENVIRONMENTAL LEARNING CENTER

Our Learning Center is located in North Cascades National Park in the heart of the North Cascades mountain range. Our facility includes classrooms, labs, a library, dining hall and lodges, all nestled on the shores of Diablo Lake along with numerous trails and three trailside learning shelters. Mountain School participants stay in three dormitory-style lodges, which sleep a total of 69 participants. Each room sleeps three participants with two shared, gender-specific bathrooms in each lodge. Our Foodshed Program offers appealing and wholesome food choices that are local, organic and sustainably produced. We challenge each class to minimize its food waste through composting. Weather at the Learning Center varies greatly depending on the season and we ask participants to be prepared for all conditions. Safety is of the highest priority, whether we're out on the trails or in the lodges. Travel time to the Learning Center from Bellingham is approximately two hours; three hours from Seattle. There are three Learning Center programs available as a three or five day option:

4TH – 8TH GRADE

ECOSYSTEM EXPLORATIONS

A strong focus on science and the natural and cultural history of the North Cascades provides the academic foundation of this keystone Mountain School program. Days are spent exploring the trails that surround the Learning Center, from Deer Creek, lined with sword ferns, to the Sourdough Waterfall where students have views of glacially-carved valleys. Hands-on inquiry-based lessons along the way introduce students to mountain ecosystems and ecological concepts and provide students an up-close look at the diverse ecological communities in the North Cascades. The educational experience continues back at the Learning Center campus in our fully equipped Aquatic and Terrestrial labs. Topics of study may include animals of the North Cascades, biodiversity, aquatic ecology, glaciers and geology, cultural history, ethnobotany and forest ecology.

7TH – 12TH GRADE

FIELD SCIENCE AND LEADERSHIP: CARNIVORES

Students are introduced to field science and research skills by investigating the habitat potential of the forest community surrounding the Learning Center for carnivores such as the fisher and wolverine, endangered forest dwellers. Participants are taught how to measure tree diversity, canopy cover, coarse woody debris and ground cover by creating and surveying their own forest transects in small groups. Students learn the roles of forest carnivores in the ecosystem and the history of hunting and trapping that have dramatically reduced their numbers. At the end of this program, groups analyze their data and draw conclusions regarding the potential of the Learning Center forests for regional wildlife.

9TH – 12TH GRADE

FIELD SCIENCE AND LEADERSHIP: WATER QUALITY

Students investigate the health of the Deer Creek watershed, a lush, perennial creek bordering the Learning Center campus. Students are introduced to field science and research skills by examining the physical, chemical and biological components of the watershed through site observations, water quality testing and examination of benthic macroinvertebrates. Students learn how these techniques are used by park researchers to assess the vitality of watersheds draining into the Skagit River and come to their own conclusions about the sustainability of this valuable resource.



OUR CLASSROOM

Mountain School is surrounded by 7,000,000 acres of protected public lands in Washington and British Columbia. In the middle lies 684,000-acre North Cascades National Park – our neighborhood. With 93 percent of its area designated as wilderness, it is known for its steep mountains, ever-flowing streams and tremendous biological diversity. With more than 300 glaciers and countless snowfields, the park is one of the most rugged and heavily glaciated areas in the United States outside of Alaska. The North Cascades are a national treasure and a living laboratory awaiting discovery.

OUR INSTRUCTORS

Students break up into small hiking and learning groups with approximately a one-to-five adult/student ratio. Teachers and chaperones are an integral part of Mountain School, participating fully in all activities. North Cascades Institute education staff design lessons and provide leadership at Mountain School. Instructors are a combination of environmental educators, graduate students studying environmental education and National Park Service rangers. All instructors have CPR and first aid certification. In addition, many have Wilderness First Responder (WFR) training, an advanced 80-hour first aid certification.

OUR CURRICULUM

While at Mountain School, students spend the majority of their time outside, hiking on trails and exploring mountain ecosystems first-hand through interdisciplinary activities. Experiential, hands-on activities in science, math, language, music, art, social studies and conservation fill days to the brim. Program activities extend through the evening. Mountain School curriculum is aligned with the Washington Assessment of Student Learning (WASL), Grade Level Expectations (GLEs) and Essential Academic Learning Requirements (EALRs) and designed to enhance classroom learning. With pre-trip and post-trip lessons included in the teacher's guide, teachers have ready-to-go, useful tools to help prepare their students for Mountain School and make connections in the classroom following their field experience.

MORE INFORMATION
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PRICING AND SCHOLARSHIPS

Mountain School serves a variety of schools and the majority of participating classes are given generous scholarship support to attend Mountain School. With no scholarship support, the full cost of the program is \$300 per participant for a three-day program and \$550 for a five-day program. The classroom teacher of a group of 20 or more students attends at no charge; additional adults pay the same rate as the students. Scholarships must be requested through the application process.

	Private schools	Public schools*
3 day program	\$300 per participant	0-25% \$150 per participant 26-50% \$125 per participant 51-100% \$100 per participant
5 day program	\$550 per participant	0-25% \$275 per participant 26-50% \$225 per participant 51-100% \$175 per participant

*Based on percentage of students in free and reduced lunch program

CONTACT US
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HOW TO SCHEDULE A MOUNTAIN SCHOOL PROGRAM

1. Fill out the enclosed application and return it to the address at left. Please call or email if you have questions or need more information. You may also go directly to our website at www.ncascades.org/school.
2. Once your application has been received, a Mountain School representative will call and schedule dates for your group. Programming is available from mid-March to mid-June and from mid-September to mid-November. Programs for the spring should be scheduled by December 15 of the previous year and programs for fall should be scheduled by May 15 of the current year.
3. You will be sent a contract to complete. Please make sure that all information is correct, sign and return the contract and a deposit of 10% within two weeks. The deposit will be deducted from your final bill. Billing occurs after the program is completed. Your reservation will be considered final after paperwork and deposit are received.
4. After we receive the signed contract and deposit, you will be sent a packet containing all the materials that you will need to plan a rewarding trip to the North Cascades for your class.

ABOUT NORTH CASCADES INSTITUTE

North Cascades Institute seeks to inspire a closer relationship with nature through direct experiences in the natural world. Our mission is to conserve and restore Northwest environments through education. Since 1986 we have helped connect people, nature and community through science, art, literature and the hands-on study of natural and cultural history. Our goal is to help people of all ages experience and enjoy the mountains, rivers, forests, people and wildlife of the Pacific Northwest – so all will care for and protect this special place.

North Cascades Institute is committed to innovation and excellence in environmental learning and leadership in the nonprofit community. We believe that sustainable communities are built on healthy environments, vibrant economies and social equity.

Toward that end, four key themes run through all our programs:

- The convergence of natural and cultural history, science, humanities and the arts
- Human history as integral to the history of landscapes and wild lands
- Respect among individuals and the broader community
- Exploration, reflection and stewardship in the out-of-doors

Teaching all ages, we offer:

- Natural and cultural history seminars, field excursions and retreats for adults
- Family Getaways
- School programs and summer youth adventures
- Teacher education and internships
- Volunteer stewardship programs
- Graduate M.Ed. in environmental education

MANY OF OUR ADULT SEMINARS ARE AVAILABLE FOR TEACHER CLOCK HOURS AND ACADEMIC CREDIT. SCHOLARSHIPS ARE AVAILABLE FOR EDUCATORS. VIEW COURSE LISTINGS AT WWW.NCASCADDES.ORG OR CALL (360) 856-5700 EXT. 209 FOR A FREE CATALOG.



Visit us online at
www.ncascades.org/school



FOR MORE INFORMATION ON ALL OF OUR
PROGRAMS, VISIT
www.ncascades.org





NORTH CASCADES INSTITUTE
SCHOOL AND YOUTH PROGRAMS

810 State Route 20, Sedro-Woolley, WA 98284
P 360-856-5700 ext. 209 F 360-856-1934
nci@ncascades.org

www.ncascades.org

Mountain School Application

PLEASE COMPLETE AND RETURN TO THE ADDRESS ABOVE

OR

FILL OUT ELECTRONICALLY AND EMAIL TO JEFF_GIESEN@NCASCADES.ORG

Please choose a program:

- 4th – 8th Grade Ecosystem Explorations
- 7th - 12th Grade Field Science and Leadership: Carnivores
- 9th - 12th Grade Field Science and Leadership: Water Quality

Choose your preferred season: Fall Spring

NAME OF SCHOOL	DISTRICT	PRINCIPAL
SCHOOL MAILING ADDRESS		
SCHOOL'S COUNTY	TYPE OF SCHOOL (PUBLIC, PRIVATE, ETC.)	
PRIMARY CONTACT PERSON AND JOB TITLE	GRADE LEVEL(S)	NUMBER OF STUDENTS
TELEPHONE NUMBER:	FAX NUMBER	EMAIL ADDRESS

Please list any dates that will NOT work for your class/group due to school holidays, standardized testing, teacher-parent conferences, etc.

Are you planning to repeat this experience beyond this year?

For scholarship consideration, please answer the following questions:

1. What is the percentage of your group that qualifies for a free or reduced lunch program?

2. Does your group have any extenuating circumstances that we need to know about?

PRIMARY CONTACT PERSON'S NAME (IF DIFFERENT THAN TEACHER INFORMATION)	DATE
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TEACHER'S NAME:	DATE
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