Waterton-Glacier International Peace Park World Heritage Site

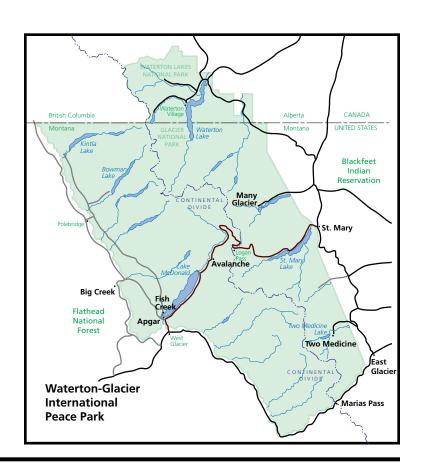


# **Educational Opportunities**

#### **Dear Educator:**

The education staff at Glacier National Park hope you had a great summer and would like to remind you about our "Parks as Classrooms" education programs. These programs are designed to merge your educational goals and objectives with the nationally significant natural and cultural resources found in Glacier. We are proud to be able to offer ranger-led field trips, classroom visits, educational trunks, and teacher trainings throughout the school year on both east and west sides of the park. The following information explains these opportunities (see the areas on the map at right in black type for field trip locations).

We also realize that these options may not fit your needs and encourage you to apply for a fee waiver to bring groups on your own. (You must apply for an educational fee waiver in advance or you will be charged the park entrance fee when you arrive.) Visit <a href="http://www.nps.gov/glac/forteachers/">http://www.nps.gov/glac/forteachers/</a> for information on bringing a school group on your own and the fee waiver application.



Senses, Habitats, Wildlife Grades K-2 Spring & Fall These ranger-led programs use the forest, aquatic, and grassland habitats found in the park to help young students learn about habitat requirements, plant and animal growth stages, and the National Park Mission of protecting habitat. Hikes are less than one mile and are combined with other hands-on learning activities.

West Side/Apgar: The day can include a puppet show, Discovery Cabin stations with hands-on examination of animal artifacts, a short hike on the Oxbow Trail, and a ranger-led concluding activity.

Note: Kindergarten senses programs are half-day with a ranger, and half-day with teacher-led activities.

East Side: The day will include activities along hiking trails appropriate to the students' ages and abilities. The Beaver Pond Trail and the Sun Point Trail at St. Mary, the Lubec and Mt. Henry Trails out of East Glacier, and the South Shore Trail at Two Medicine are the ideal length for these ages.

Forests & Native Plants Grades 4-8 Spring & Fall One- to two-mile hikes with a ranger into the old growth coniferous forest or aspen parkland provide opportunities for elementary students to learn about photosynthesis, nutrient cycling, succession, disturbance, forest ecology, wildflowers, and American Indian uses of both plants and wildlife.

West Side/Apgar & Avalanche: Depending on the group age and time of year, a hike on the Trail of the Cedars can be combined with activities in the Avalanche picnic area or a visit to the native plant nursery.

East Side: In St. Mary, the Beaver Pond Loop Trail, the St. Mary Falls Trail, and the Sun Point Trail, are excellent for student activities exploring forests, as well as the Autumn Creek Trail at Marias Pass and the South Shore Trail at Two Medicine.

Fire Ecology Grades 3-9 Spring & Fall Rangers guide students through activities such as: scavenger hunts, using dichotomous keys to identify fuel types, examining tree rings for fire scars, and/or watching demonstrations of fire behavior. Groups consider the history of fire in Glacier and its role as a natural process on these 2-3 mile hikes.

West Side: Students view the area burned by the 2003 Robert Fire by hiking the Rocky Point Trail which starts at the Fish Creek Picnic Area.

East Side: The Red Eagle Lake trail will allow students to see how the area is changing since the 2006 Red Eagle Fire.

Earth Science Grades 5-12 Spring & Fall The Avalanche and Lake McDonald Valleys (Apgar Area) and the Grinnell Glacier Valley (Many Glacier), provide evidence of a range of geologic processes that have shaped the landscape. Rangers lead students on a 4+mile hike and explore sedimentation, mountain building, glaciation, rocks and minerals, erosion, weathering, and soil formation.

The length of these hikes and level of information is geared toward secondary age students and is a challenge to fit into a regular school day schedule. The ability to have an extended field day is recommended for this program.



## Native Plant Restoration & Stewardship Grades 7-12 Spring & Fall

For secondary school students, the native plant program offers field trips on both east and west sides of the park to help with seed collecting, planting, and learning about native plant restoration.

These are hands-on, work days for students to do service learning. Contact the Native Plant Nursery at 406-888-7835 to find out about restoration projects your students could be involved in.

## Winter Ecology Variations for all Grades January - March

All winter ecology programs on both west and east sides of the park include snowshoe hikes. The park provides all the snowshoes for students and chaperones free of charge. Depending on the age of the group and the area visited, students may also explore the physical properties of snow, animal tracks, winter adaptations, snow caves, snow metamorphism, variations in snow density, and the importance of snow surveys.



#### Typical Field Trip Schedule

No two school programs are exactly alike, but the following represents a typical schedule. If your school is closer to the park, or has earlier or later dismissal times, this schedule can be adjusted. Make sure to consider adequate travel time (especially if there is inclement weather) for your park visit.



9:30 - 10:00 a.m. - Bus arrives

10:00 - 10:30 a.m. - Park ranger introduction & the National Park Mission

10:30 - 11:30 a.m. - Session 1 of ranger-led activities

11:30 - 12:00 p.m. - Lunch and clean-up

12:00 – 1:00 p.m. - Session 2 of ranger-led activities

1:00 - 1:30 p.m. - Concluding activity and final assessment

1:30 - 1:45 p.m. - Bus departs

# Scheduling a Field Trip

We accept reservations starting August 25, 2008 for the entire 2008-2009 school year. Program availability is first-come, first-served. Call soon, as dates fill up quickly!

#### Fall programs:

September 15, 2008 - October 22, 2008.



Winter programs:

January 12, 2009 - March 20, 2009.

#### Spring programs:

May 4, 2009 - June 5, 2009.

#### Contact:

Laura Law, Glacier Education Specialist 406-888-5837, or email laura\_law@nps.gov

Group size is generally limited to 60 students but may be fewer on days when ranger staffing, facilities or equipment are limited (40 students for snowshoeing). The number of chaperones will be determined by the age of the students and the program selected.

When you email or call to schedule your visit, be prepared to explain/discuss your field trip objectives and the topic you want to focus on. (Objectives for each field trip are available on our website at www. nps.gov/glac/forteachers/ .) You will need to provide a contact phone number, email address, group size, school address, approximate park arrival and departure times, and the date you are interested in. It's a good idea to have alternate trip dates in mind in case your first choice is taken.

#### **Educational Trunks**

Educational trunks and materials can be borrowed for 2-4 weeks at no charge as long as you can pick-up and return them. The newly updated wolf and bear educational trunks contain pelts, skulls, activities, DVDs, story books, and other items to use in your classroom to help your students learn about these amazing creatures (lessons are K-12). We also have a collection of 7 mammals skulls available for loan and a "Birdsong Kit." The FireWorks trunk has many hands-on lessons and labs for learning about the science of fire (www. fs.fed.us/rm/pubs/rmrs\_gtr65.html). The trunks/kits must be picked up and returned to West Glacier.

Would your school like a three hour training session on one of our trunks as part of a staff training day? OPI renewal units are available, contact Laura Law at 406-888-5837, or email Laura\_Law@nps.gov at least a month in advance to schedule a training or to reserve a trunk.

#### Classroom Visit on Glacier & Climate Change November - December

New for this fall, one of our summer interpretive rangers is available to visit your classroom to present information and an activity that will engage your students in how climate change is affecting Glacier. Geared toward upper elementary and secondary school students, this one hour presentation will include a pre-visit activity to prepare students and a post-visit activity to extend the learning experience.

## **Glacier Institute**

The Glacier Institute is a nonprofit organization providing quality outdoor education to people of all ages through exceptional field and science-based learning experiences. Two facilities, Glacier Park Field Camp and Big Creek Outdoor Education Center, are staffed by experienced naturalists and offer overnight accommodations to school groups participating in Institute courses. Field Camp and Big Creek are open April until October. Please contact the Glacier Institute Office at 406-755-1211 or visit their website at www. glacierinstitute.org.

#### Concessions

Tour companies that operate in the park occasionally offer reduced rates for school groups. Call each company for updated information and pricing: Glacier Park Boat Company, 406-247-2429; Sun Tours, 1-800-786-9220 or 406-226-9220; Glacier Park Inc. (Red Jammer Buses), 406-892-6721.