



## Field Trips Fall 2013 to Spring 2014



National Parks provide outstanding outdoor classrooms that support and enhance your learning objectives. Grand Canyon National Park rangers conduct curriculum-based field trips using this remarkable landscape as a tool. Parks provide students with real-world examples of concepts they learn in the classroom. Field trips encourage students to explore, experience, and engage in the learning process. Programs take place along the rim of Grand Canyon—an inspirational backdrop. All programs are aligned with National and Arizona Academic Standards.

For additional details, visit [www.nps.gov/grca/forteachers](http://www.nps.gov/grca/forteachers).

### SCHEDULE

Fall trips run Monday through Friday, between September 18 and November 15, 2013.

Spring trips run Monday through Friday between March 19 and May 23, 2014.

(no programs October 14, 18, November 1, 11, April 8, 9, 10, 23, 24)

### COST

Programs are free to schools! A waiver for the park entrance fee is included. For title one schools and tribal schools travel grants may be available. See online for details.

### GROUP SIZE

Field trips are limited to 35 students maximum, and require an exact student to chaperone ratio of 5:1. For larger schools, it may be possible to conduct multiple field trips simultaneously or on the same day, depending on staffing levels. Please submit a separate form for each group of up to 35 students.

### TO REGISTER

1. Fill out a form. All registration forms are available online at: [www.nps.gov/grca/forteachers](http://www.nps.gov/grca/forteachers).
2. Submit registration form by email to [GRCAeducation@nps.gov](mailto:GRCAeducation@nps.gov), or faxing 928-638-7691.
3. Wait for confirmation and an orientation packet.

### DETAILS

All field trips are conducted outside, weather permitting, and require walking up to 1.5 miles on paved and unpaved trails. Some routes are off trail and include traversing uneven or rocky terrain.

Field Trip Name	Grades	Length	Description	Start time	Topic
<b><i>Dynamic Earth</i></b>	3 to 6	5 Hours	Unravel the mystery of how Grand Canyon formed. Hike into the canyon to explore a fossil site and gain an understanding of how scientists determine environments in the geologic past. After, learn about the deposition of the colorful rock layers and explore the dynamic geologic processes that formed Grand Canyon.	9 am	Geology
<b><i>Grand Canyon Rocks!</i></b>	3 to 6	2.5 Hours	Focus on the rock layers and their depositional environments. Through hands-on activities, learn the geologic processes that formed Grand Canyon.	9 am or 1 pm	Geology
<b><i>Stories in Stone</i></b>	3 to 6	2.5 Hours	Using the eyes of a paleontologist, discover fossils preserved in the rocks of Grand Canyon. Through close observation of the 270 million-year old Kaibab Formation, students record the fossils they find and interpret the environment in which the animals lived.	9 am or 1 pm	Geology
<b><i>Life on the Edge</i></b>	3 to 5	5 hours	Using their senses, students explore the forest and rim ecosystems of Grand Canyon. Activities, games, and journal entries help students learn plant and animal adaptations. Make wildlife observations, search for evidence of animals, and learn the role of National Parks in protecting wildlife and plants.	9 am	Ecology
<b><i>Eco Explorers</i></b>	3 to 5	2.5 hours	A shorter version of Life on the Edge.	9 am or 1 pm	Ecology
<b><i>Rails and Tales</i></b>	4 to 6	2.5 hours	While exploring historic Grand Canyon Village, discover stories of people who have shaped the park's pioneer history. Through scavenger hunts, activities and journaling, students learn about the changing ways people have valued Grand Canyon over time.	9 am or 1 pm	Human History
<b><i>Into the Canyon</i></b>	5 to 8	5 Hours	Hike into the canyon on the Bright Angel Trail, 3 miles round-trip and 1,500 feet descent and ascent. Students measure pulse, breathing rate, and blood pressure before and after hiking to understand our body's physical responses to strenuous exercise. Learn how to have fun and stay safe while hiking outdoors. Not recommended for people with heart or respiratory problems, difficulty walking or extreme fear of heights.	9 am	Human Physiology/ Hiking Safety
<b><i>Fire: Creator or Destroyer?</i></b>	7 to 8	5 hours	Examining forest plots, comparing burned and unburned locations, collecting data and recording observations, students gain an appreciation for the important role of fire in this ecosystem.	9 am	Ecology
<b><i>Earth Explorations</i></b>	9 to 12	2.5 Hours	Through observing and analyzing fossils from Grand Canyon, students gain an understanding of how geoscientists use the rock record to determine past environments. Additionally, students will explore the dynamic geologic processes that formed Grand Canyon.	9 am or 1 pm	Geology
<b><i>Chillin' out on Climate Change: High School Geology</i></b>	9 to 12	5 hours	Grand Canyon National Park protects an outstanding record of climate change through time. Comparing the fossils found in three distinct rock layers, recording sedimentary structures and completing journal entries allow students to grasp natural climate change variables and relate this to human-induced climate change.	9 am	Geology
<b><i>Battle for Survival</i></b>	9 to 12	5 hours	Through analyzing forest structure, recording tree and soil data, observing evidence of wildlife and discovering the fascinating survival strategies of plants and animals, students understand interrelationships between the living and non-living components of the ecosystem.	9 am	Ecology