

# **Yellowstone/Grand Teton National Parks Science Adventure Tour**

## **Science Content Standards**



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## *Yellowstone/Grand Teton National Parks Tour*

<b>TOUR STOPS</b>	<b>Science Content</b>
<p><b>Great Salt Lake</b> Our first stop is Antelope Island in the Great Salt Lake, a popular tourist destination that offers panoramic views of the lake, hiking and biking trails, wildlife viewing and access to beaches. We will hike and swim in water much higher in salt content than the ocean. The lake is the largest salt lake in the western hemisphere. The shores of the lake provide a habitat for millions of migratory shorebirds and waterfowl as well as brine shrimp.</p>	<p>Geology Ecology Earth and Life History Mineral Resources Wildlife Biology Conservation Evolution</p>
<p><b>Yellowstone Mud Volcano, Hayden Valley, Grand Canyon of Yellowstone, Obsidian Cliffs</b> Sites will include geothermal wonders, minerals, and wildlife (the Hayden Valley supports herds of bison, scattered elk, and the occasional grizzly bear). The Grand Canyon of Yellowstone was formed by volcanic action and features spectacular waterfalls, and the Obsidian Cliffs appear as a mountain of black and deep green bottle glass.</p>	<p>Geothermal energy Geology Evolution Earth and Life History Wildlife Biology Shaping of Earth's surface Anthropology Archaeology Volcanism Seismology Conservation</p>
<p><b>Mammoth Hot Springs and the West Yellowstone Grizzly and Wolf Discovery Center</b> Mammoth Hot Springs consist of step-like terraces as heated water moves along the Morris-Mammoth Fault. The hot water carries dissolved calcium and bicarbonate to the surface of the terraces where pressure lessens. Carbon dioxide then escapes as gas and the carbonate combines with calcium to precipitate as travertine. Visitors to the Grizzly and Wolf Discovery center learn about and view grizzly bears and gray wolves in their natural habitats.</p>	<p>Geology Wildlife Biology Ecology Earth and Life History Geothermal energy Evolution Conservation Volcanism</p>

<b>TOUR STOPS</b>	<b>Science Content</b>
<p><b>Yellowstone: Norris Geyser Basin, Grand Prismatic Spring and Old Faithful!</b> Norris Geyser Basin may be the hottest geyser basin in Yellowstone, with temperatures exceeding 400 degrees Fahrenheit. The Basin contains an acidic environment and because of this hostile condition plants, algae and bacteria have difficulty in establishing themselves. Instead the basin derives its colors from mineral oxides, in spectrums of pink, red, orange (iron oxides) and yellow (sulfur and iron sulfates). Grand Prismatic Spring is the star attraction of the Midway Geyser Basin and is very appropriately named: it is indeed grand, and as you can see above, its waters and bacterial mats feature a veritable rainbow of colors. With dimensions of 250 feet by 380 feet, it is the largest hot spring in Yellowstone, and third largest in the world (the two larger ones are in New Zealand). Old Faithful, the most famous geyser in Yellowstone National Park, can produce eruptions shooting 3,700 to 8,400 gallons of boiling water to a height of 106–185 feet lasting from 1.5 to 5 minutes</p>	<p>Geology Geothermal Heat Wildlife Biology Microbiology Shaping Earth’s Surface Ecology Volcanism Seismology</p>
<p><b>Continental Divide Hike</b> Students experience the backbone of a continent. In North America, from Alaska to New Mexico, the Continental Divide moves along the crest of the Rocky Mts., which separates westward-flowing streams from eastward-flowing waters.</p>	<p>Geology Geography Plate Tectonics</p>
<p><b>Grand Teton National Park</b> Located in northwestern Wyoming, the Park embraces the most scenic portion of the glaciated, snow-covered Teton Range. The Tetons are made up of metamorphosed sandstones, limestones, various shales, and volcanic deposits. Students will tour the park, hike to Jenny Lake, and observe wildlife.</p>	<p>Geology Plate Tectonics Conservation Wildlife Biology</p>
<p><b>Snake River Adventures</b> The Snake River runs through the Grand Teton National Park. Students will have an opportunity to both experience a float trip and a whitewater rafting adventure on the Snake. Travelers will camp in the backcountry of Wyoming one night, experiencing the beauty of this glorious park.</p>	<p>Geology Biology Conservation</p>