Project Week: Grand Canyon & National Parks of the American Southwest

Global Week 2022 // Upper School

Zion National Park showed us an amazing range of educational opportunities in the earth and biological sciences. Additionally, pioneer and Mormon history are highlighted in this “place of sanctuary.”

The main canyon at Zion was the product of erosion by the Virgin River – being cut deeper and deeper as flash floods scoured out the riverbed, and rockfalls widened the canyon over millions of years. Zion is located at the intersection of three major geological regions of the southwest – the Colorado Plateau, the Mojave Desert, and the Great Basin. It is one step along the Grand Staircase, which extends across the state of Utah. This confluence of land regions makes a truly unique high desert experience.

Ecologically, we saw the effects of elevation on vegetation zones and animals. We drove through the Mt. Carmel tunnel; a wonder of engineering from the 1920s and ’30s. Many of Zion’s hiking trails and buildings were built by the Civilian Conservation Corps and remain as historical reminders of the work done in the National Parks during the Great Depression as part of Roosevelt’s New Deal.

At the Grand Canyon, we started with Desert View Watchtower in the eastern portion of the park. We learned Architect Mary Colter who designed this re-creation of an ancient Native American structure in the 1930’s as part of a series of structures built at Grand Canyon National Park. This famous building stands as not only a beautiful structure and part Grand Canyon National Park history but also as a monument to one of the first notable female architects in American history.

We learned the geology of the canyon itself. Sedimentary layers read like chapters of a geologic history book of this part of the country. Each layer

represents a different time period, different environment, and different era of the history of life on this planet.

We hiked down the South Kaibab trail taking them back in time – each foot deeper into the canyon represents hundreds of thousands of years of geological history. We saw fossilized sponges and shells in the canyon walls in places where oceans can hardly be imagined today. We learned about the formation theories of Grand Canyon including the deposition of the sedimentary layers, uplift of the Colorado Plateau, down-cutting by the Colorado River, and erosional widening of the canyon over time.

Other Highlights

We enjoyed the sunset at Coral Pink Sand Dunes State Park.

We rode on the cowboys' truck and went to cowboy dinner and s'mores in the middle of nowhere. We squeezed together in the cowboys' 1970s truck and got dusted from our teeth to feet but the students were so excited about it. They were laughing and singing all the way. We also stop by the cowboys' cow farm and played with the cows.

We did a three-hour float down the Colorado River. We had a very knowledgeable and experienced guide, Pat. He knows every rock of the mountain. It was cold, windy and even raining during the floating trip but we saw amazing scenes along the river. Some brave kiddos even jumped into the river when we took a short break by the river.

Flagstaff is the world's first International Dark Sky City. City regulations limit the amount of light pollution sent out to illuminate the desert sky. We had an unprecedented experience of night walk and star gazing at Buffalo Park. We were completely indulged in nature with a full moon, a beautiful stary night and winding mountains. We also learned the arrangements of the winter night sky and how to tell the stars that we saw. Plus MPA is the only group in the park!

We swam in the Slide Rock State Park among the mountains. The water was freezing cold but our students were the bravest people among all the tourists in the park to slide down the river.