



## Student Guide



### The Idea

What was once an idea to bring tourism to South Dakota, turned into something much greater. The idea was originated by State historian Doane Robinson. He imagined large figures of the American west carved in South Dakota's Black Hills. Robinson contacted master sculptor Gutzon Borglum. Borglum liked the idea, but wanted the sculpture to be a monument that conveyed the meaning of America. Work commenced officially on October 4, 1927. After fourteen long years riddled with funding challenges, the monument was completed in 1941. Today Mount Rushmore is visited by millions of visitors a year and stands as a symbol of America and this great nation.

### The People

Before bringing his idea to the South Dakota citizenry, Robinson contacted and gained the help and support of Senator Peter Norbeck. Norbeck had a deep interest and appreciation for the Black Hills. In 1913, using his powers as a Senator, Norbeck was able to create a 61,400 acre game preserve in the Black Hills. This later grew by over 30,000 acres in 1920, becoming what we know today as Custer State Park.

Gutzon Borglum, a famous sculptor who had made his name through celebration of things American, was asked if he would be interested in designing and supervising the creation of this massive sculpture in the Black Hills. Robinson in his letter to Borglum admitted that the project had "not passed beyond mere suggestion", but if Borglum would be willing to do it, Robinson would find the financial backing for the project.

Borglum liked the idea, and scouted out a broad wall of exposed granite on 5,725 foot Mount

Rushmore, named in 1885 for New York lawyer Charles E. Rushmore. Robinson was originally imagining the sculpture would be a parade of Indian leaders and American explorers who shaped the frontier. Borglum instead envisioned four U.S. presidents beside an entablature inscribed with a brief history of the country. In a separate wall behind the figures, a Hall of Records would preserve national documents and artifacts. The sculptor's choice of subjects would elevate the memorial from a regional enterprise to a national cause.

Senator Peter Norbeck and his long time friend Congressman William Williamson were key figures in acquiring funding for the carving of the mountain. Throughout the years they wrote and promoted legislation which ultimately provided 85% of the funding for the memorial.

### The Presidents

Gutzon Borglum chose four presidents to carve on the mountain, because to him they represented the first 150 years of American History.



Washington, being our first president represents the BIRTH of our country.

Served 1789-1797



Lincoln embodies the PRESERVATION of the nation in confronting the challenges of the Civil War.

Served 1861-1865



Jefferson symbolizes the EXPANSION of the nation, he is credited with Louisiana Purchase in 1803.

Served 1801-1809



Theodore Roosevelt represents the DEVELOPMENT of our country. He promoted construction of the Panama Canal.

Served 1901-1909

## Mount Rushmore Timeline



1920

December 28, 1923  
State Historian Doane Robinson suggested carving giant statues in South Dakota's Black Hills.



October 1, 1925  
Dedication of Mount Rushmore as a national memorial.



October 4, 1927  
First actual drilling begins.



July 4, 1930  
Washington's dedication.



June 10, 1933  
Executive order issued by President F. D. Roosevelt placed Mount Rushmore under the jurisdiction of the National Park Service.



August 30, 1936  
Jefferson's dedication scheduled in conjunction with F.D.R. visit.



September 17, 1937  
Lincoln in dedication in connection with 150th anniversary of the adoption of the constitution.



July 2, 1939  
Roosevelt's dedication.

March 6, 1941  
Death of Gutzon Borglum, work carried on by his son Lincoln.

1940

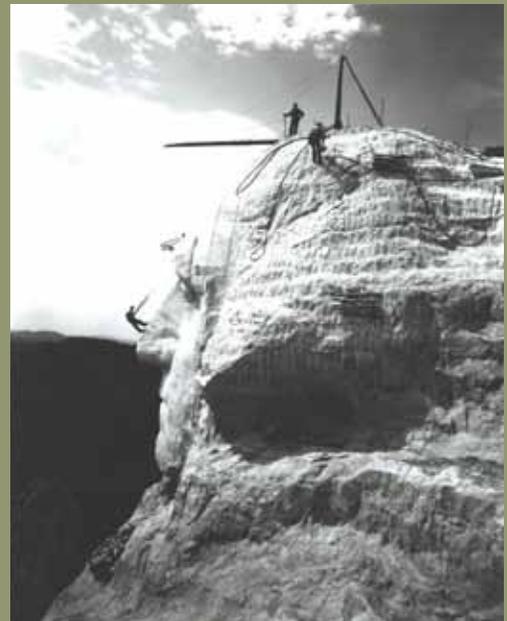
October 31, 1941  
Last day of drilling on the mountain.

## Carving

How do you turn a mountain into a work of art? The famous sculptor Gutzon Borglum familiarized himself with life masks, painting, photographs and descriptions of the four presidents. He then created multiple models which his workmen could use as guides.



The models he created were sized at a ratio of 1:12—one inch on the model would equal one foot on the mountain. He used these models in conjunction with a method of measurement called the pointing system. He had one set up on the models and another on the mountain itself, using the ratio guidelines workmen were able to figure out how much rock to remove and where.



Once an egg-shaped volume of rock had been exposed and prepared, the measurements were calculated for the facial features. Skilled blasters could dynamite within a few inches of a desired measurement. After rough facial features were shaped out, workers suspended by cables in swings called Bosun chairs used pneumatic drills to honeycomb the granite with closely spaced holes. This excess rock was chiseled off, and then workers "bumped" away the drill holes and lines using pneumatic hammers to create a smooth, white surface.



## What Animals Live Here?

There are many creatures that call the Black Hills home. This is the land where mountains meet the plains; two very different environments, leading to a rich diversity of habitats and animals. Today in the Black Hills you can find bison, elk, pronghorn, bighorn sheep, coyotes, mountain lions, and bobcats as well as many other creatures.

During your visit to Mount Rushmore you are most likely to see the following:



Rocky Mountain Goat  
*Oreamnos americanus*



Mule Deer  
*Odocoileus hemionus*



Least Chipmunk  
*Tamias minimus*

## What Plants Live Here?



The ponderosa pine is the primary tree in the Black Hills around Mount Rushmore. Ponderosa pine trees are found on dry and rocky slopes. In the Black Hills a ponderosa pine forest is the climax community. A climax community is the final stage of biotic succession attainable by a plant community. If there is a disturbance in the ponderosa pine community, such as a blow down or pine bark beetle infestation in an area, forest succession will start again. In this newly opened area other species of trees and plants such as grasses, shrubs and quaking aspen will start to grow. The aspen seedlings cannot tolerate the shade created by the ponderosa's, and soon the ponderosa pine dominates again, until the next disturbance befalls the forest.

## Today



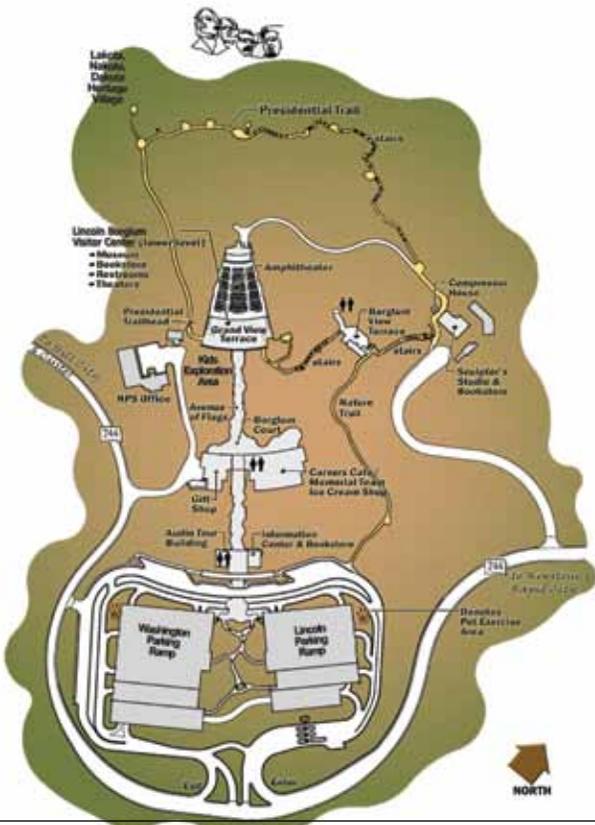
Each year around 3 million visitors travel to Mount Rushmore to admire and be inspired by Gutzon Borglum's sculpture. To help maintain the sculptures vitality, once a year, just before winter, National Park Service staff repels over the side of the faces to inspect and caulk any cracks or fissures that they find. They use a silicone sealant, which seals out moisture and helps prevent ice and snow from penetrating into the cracks and splitting or damaging the sculpture.

## Weather

January and February are usually the coldest months during the winter. Daytime temperatures average in the 30's but during windy conditions temperature inversions can occur, warming the area into the 50's and 60's. March and April are usually the snowy season in the Black Hills. Normal temperatures are in the 40's and low in the 30's. Average snowfall in the Black Hills is about 10-20 inches. May and June are mild, in the 60's and 70's, with some scattered thunderstorms in the afternoon. July and August are considered the warmest months when temperatures can easily rise into the 90's, and providing there is low humidity temperatures will only dip into the 50's. In September and October the temperatures begin to cool, averaging in the 60's and 70's, lows into the 40's. November and December are the beginning of winter months when temperatures range from the 30's to 40's.

## Park Facts

- 90% of the heads were carved with dynamite.
- There were nearly 400 workers who helped create this memorial.
- Total cost of memorial was \$989, 992.32.
- No one died during the carving of the memorial.
- Rate of erosion of heads: 1 inch every 10,000 years.
- Mount Rushmore is 5,725 feet tall.
- Mount Rushmore was named in 1885 for New York lawyer Charles E. Rushmore.
- The mountain is made of Harney Peak granite.



**Visitor Information**  
13000 Highway 244,  
Building 31, Suite 1  
Keystone, SD 57751  
605-574-2523  
[www.nps.gov/moru](http://www.nps.gov/moru)