

Pipestone National Monument

National Park Service
U.S. Department of the Interior



JUNIOR RANGER ACTIVITY BOOK

EXPLORE! LEARN!
PROTECT!

This book belongs to:



WELCOME TO: INYAN ŠA OYATETAWA WOKIKSUYE

(EEN-yawn shaw oh-YAH-tay-tah-wah woe-KEEK-soo-yay)



*This is how you say "Pipestone
National Monument" in Dakota*

The National Park Service protects over 400 special places across America. Pipestone National Monument protects the rights of Native Americans to dig for a red stone called pipestone. They use this stone to make pipes and other important objects. The park rangers are here to help visitors and to protect this place.

To earn your badge, complete the following number of pages based on your age (circle your group):

5 and under: any 3 pages

6-9 years old: any 5 pages

10-12 years old: any 7 pages

12+: Entire book

Please keep a few things in mind as you explore the park:

- Leave what you find so others can find and enjoy it, too.
- Help us protect the prairie by staying on the paved trail.
- Give all wildlife plenty of space.
- Don't climb the rocks.
- The water is not safe to play in or drink - steer clear of it!

What state (or country) are you visiting from?

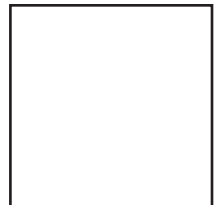
Can you name a National Park Service site in your home state?
(Hint: there is a large map of national park sites in the building to help.)

Many other parks have Junior Ranger programs, too! Have you earned a Junior Ranger Badge from any other national park sites? If so, list at least one place that you have earned a badge.



Most national park sites have ink stamps that people collect in their National Park Passports. These stamps have the name of the place you visit and the date.

Find the stamp in the Visitor Center and place the
Pipestone National Monument stamp in this box.



3 Exhibits

There are more than 570 federally recognized tribes across the United States and Alaska.

How many different tribes does Pipestone National Monument work with to protect the pipestone quarries?



Throughout the exhibits you will see a medicine wheel. It is an important symbol that can have several different meanings.

Write an example of what each section on the medicine wheel may represent:



A **quarry** is a pit people dig into the ground to get rock. Quarriers (people who work to get the stone out) use hand tools to break through the hard Sioux Quartzite to reach the softer pipestone layer below.

Look at the quarry wall in the exhibits. How tall do you think the wall of quartzite is that quarriers have to break through? _____

How many buckets of rock have to be removed before quarriers reach the pipestone? _____

Can you think of anything that you would be willing to work that hard for? _____



There are two state parks nearby where rock climbing is allowed. Why do you think visitors are not allowed to climb the rocks at Pipestone National Monument?

(Circle the right answer)

A. To discourage fun

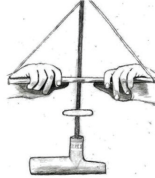
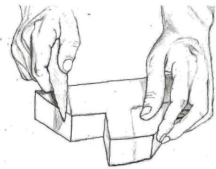
B. Out of respect for the many Native Americans who consider this place sacred

C. To annoy rock climbers

5 Pipecarving

After the pipestone is removed from the quarry, quarriers carve the stone into pipes. They have done this for centuries.

Match the old tool with the new tool.



Many Indigenous people smoke the pipe as a form of prayer in which the smoke carries their prayers to the Great Spirit.

Sometimes the pipes are mistakenly called “Peace Pipes,” but they are used for much more than that, such as important ceremonies, trade, personal prayer, and Sun Dances.

The tallgrass prairie provides many different types of plants that Indigenous people have traditionally smoked in their sacred pipes.

Smell the bowls containing different plants used in sacred pipes. Which scent is your favorite?



Explore the images, murals, videos, and text around the exhibits.
Complete the activities below to learn more about the sacred pipe.

Circle True or False

Native Americans use the pipes they carve for prayer and ceremony.

True / False

Native Americans have been coming here to quarry pipestone for less than 100 years.

True / False

All Native Americans use the same word for "Sacred Pipe."

True / False

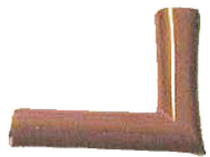
The Sioux Quartzite on top of the pipestone is very soft and easy to remove.

True / False

One way that pipes are polished today is with beeswax.

True / False

There are many different shapes of pipe bowls made by different people or different cultures. Draw a line to match each pipe on the left with its correct name.



Disc Pipe



Elbow Pipe



Plains T Pipe

7 Petroglyphs

Petroglyphs are rock carvings made by striking the surface of a rock with a sharp piece of stone as a way of recording stories and events. Many were found at Pipestone National Monument and several can still be seen in the visitor center near the demonstration area.

Draw one or more petroglyphs that tell a story.



Buffalo



Dragonfly



Man



Sun



Turtle

A large, empty rectangular box with a brown border, intended for drawing petroglyphs.

Write out your story on the lines below:

A series of ten horizontal lines for writing a story.

Winter Counts are a way that some tribes record their history with images drawn on a bison hide. Each image usually represents one memorable event in a year (from the first snowfall of one year to the first snowfall of the next year).

Design an image for your own winter count. Draw a picture of one memorable event that will help you remember this year:



In what season did your special event take place?
Circle your answer (in Dakota and English).

waniyetu
(winter)



we'tu
(spring)



mdoketu
(summer)



ptanyetu
(autumn)



9 Geology

Pipestone National Monument is considered a **geoheritage site** - a location worthy of conservation for its unique and important geological features.

Pipestone is the only place on earth where **catlinite** (the special type of pipestone that formed here) can be found. This stone is very important to many Native Americans, and it is difficult to get to because of how it formed. The quarries represent a living tradition that has survived for centuries.

Touch the rocks at the Information Desk.
Circle your answers based on how the rocks feel.

What do you think the **Sioux Quartzite** is made of?

Rough Sand

Smooth Clay

What do you think the **pipestone** is made of?

Rough Sand

Smooth Clay

Circle 6 tools quarriers use to reach the pipestone.



Even though pipestone and Sioux Quartzite formed in the same place and in similar ways, these two rocks are very different. Pipestone is a very soft rock that is easy to carve, while Sioux Quartzite is a very hard rock that is difficult to break through.

The **Mohs Hardness Scale** is a tool used by geologists to identify rocks based on their hardness. **Pipestone** has a hardness of about **2.5** (the same hardness as your fingernail). **Sioux Quartzite** has a hardness of about **7.5** - harder than steel!

Using the chart below, fill in each blank with the word “harder” or “softer.”

Pipestone is _____ than a copper penny.










Sioux Quartzite is _____ than a knife or glass plate.

Pipestone is _____ than calcite and _____ than talc.

Sioux Quartzite is _____ than diamond and _____ than topaz.

Pipestone is _____ than Sioux Quartzite.

MOHS HARDNESS SCALE

	Mineral Name	Scale Number	Common Object
	Diamond	10	
	→ Corundum	9	←  Masonry Drill Bit (8.5)
	Topaz	8	
	→ Quartz	7	←  Steel Nail (6.5)
	Orthoclase	6	
	Apatite	5	←  Knife/Glass Plate (5.5)
	→ Fluorite	4	
	Calcite	3	←  Copper Penny (3.5)
	Gypsum	2	←  Finger Nail (2.5)
	→ Talc	1	

11 Geology

The Three Maidens boulders are sacred to many people. They play important roles in traditions that have been passed down for many generations. These granite boulders were not formed here. They are called **glacial erratics** - rocks carried from one place to another by glaciers.

During the Ice Age, huge glaciers moved **from the north to the south**, picking up sand, rocks, and other materials along the way. When the glaciers melted, they left behind some of the items they carried with them. Rocks like the Three Maidens may have been carried hundreds of miles by glaciers before being left at Pipestone.

When visiting the Three Maidens, please maintain a respectful distance and do not climb on the rocks.



On the map to the left, draw an arrow in the direction **YOU** think the Three Maidens boulders traveled from to get to Pipestone.



Pipestone is marked by a red star on the map.

For centuries, many different tribes from across the country have traveled here to quarry pipestone. The quarries were a place of peace where everyone - including enemies - laid down their weapons to dig for the stone.



**Match the phrase “sacred pipe” with
the language it’s written in:**

hAahnaaWiskahts

Omaha & Ponca

canuŋpa wakaŋ

Arikara

i-hii-ke

Ioway & Otoe-Missouria

ninibá waxube

Ojibwe

ee-gu-bi

Oceti Sakowin

rahnuwe waxonyitą

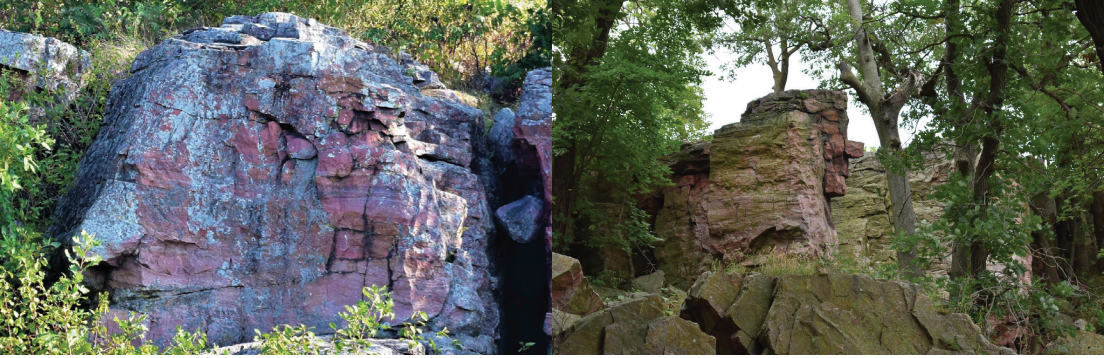
Mandan

opwaaganasin + lig

Hidatsa

13 The Circle Trail


The Oracle and Old Stone Face are two rock features along the trail that resemble faces. Some visitors have also seen the shapes of bison, wolves, and foxes in the rocks along the wall of Sioux Quartzite outcroppings.



Draw a picture of something you see in the rock wall along the trail (it can be an animal, person, or object).

In 1836, artist **George Catlin** came west to paint the American Indians and the prairie. He brought a soapstone pipestone, which now bears his name (catlinite).

Two years later, **Joseph Nicollet** and his expedition came to the area to map the region's rivers. He and several members of the party carved their initials onto a rock near Winnewissa Falls.



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Early explorers recorded their observations and experiences in journals for others to learn from. Describe your visit to Pipestone by filling in each blank.

I visited Pipestone National Monument on (today's date)

_____.

During my visit, I counted _____ birds that were_____.

I was surprised to see _____ in the prairie.

The waterfall was_____. I noticed that the trees around me were _____ and probably used by wildlife for _____. While

standing perfectly still for 30 seconds, I heard the sound of _____.

The weather was _____.

The most important thing I learned during my visit was _____.

15 Tallgrass Prairie

Outside the Visitor Center are pipestone quarries, Sioux Quartzite outcrops (rock sticking out of the ground), Winnewissa Falls, and the tallgrass prairie.



The tallgrass prairie is a large grassland that once covered roughly 40% of the country. Less than 2% remains today with wildflowers and grasses of all shapes, colors, and sizes. Some grasses can grow up to 10 feet tall! The tallgrass prairie is one of the most diverse ecosystems in North America.



— 10 ft

— 8 ft

— 6 ft

— 4 ft

— 2 ft

— 0 ft

How tall are you!

Draw a picture of
yourself next to the
scale.

Which is taller –
YOU or the GRASS?

As you explore the Circle Trail, draw an “X” through each space that contains something you saw or did. How many times can you get a BINGO?

If you’re playing in the winter, it’s tougher to do than the rest of the year, but try your best! You may have to get creative and look for the animals in exhibits, pictures, books, or carvings.

Saw Winnewissa Falls	Said “Hi” to a Park Ranger	Climbed the Stairs at the Oracle	Had a Picnic	Saw the Spotted Quarry
Stayed on the Trail	Saw a Monarch Caterpillar or Butterfly	Saw a Quarrier in their Quarry	Saw Leaping Rock	Asked a Carver a Question
Listened to Nature for One Minute	Earned Jr. Ranger Badge(s) at other parks	Pipestone National Monument	Visited the Three Maidens	Walked the South Quarry Trail
Saw a Leashed Dog	Got Your Passport Stamp	Picked up a Piece of Litter	Identified a Bird	Saw a White-Tailed Deer
Have Visited Other Nat’l Park Sites	Saw a Turtle	Saw Lake Hiawatha	Saw a Native Prairie Plant	Learned Something New

Did you see or experience something that’s not on the BINGO chart, but you think should be? Tell us about it!

17 Tallgrass Prairie

Can you find all the hidden animals of the tallgrass prairie on the following page? Use the checklist below to search for Pipestone's wildlife. Once you find an animal, be sure to circle it in the picture.

1 - 7 Animals: Tallgrass Tenderfoot

8 - 14 Animals: Wildlife Watcher

15 - 21 Animals: Prairie Pro!

- | | |
|--|--|
| <input type="radio"/> Thirteen-Lined Ground Squirrel | <input type="radio"/> Monarch Butterfly |
| <input type="radio"/> Bison | <input type="radio"/> White-Tailed Deer |
| <input type="radio"/> Northern Grasshopper Mouse | <input type="radio"/> Beaver |
| <input type="radio"/> Coyote | <input type="radio"/> Northern Prairie Skink |
| <input type="radio"/> Eastern Cottontail | <input type="radio"/> Bobolink |
| <input type="radio"/> Bald Eagle | <input type="radio"/> Common Snapping Turtle |
| <input type="radio"/> Virginia Opossum | <input type="radio"/> Green Heron |
| <input type="radio"/> Plains Pocket Gopher | <input type="radio"/> Topeka Shiner |
| <input type="radio"/> Striped Skunk | <input type="radio"/> Raccoon |
| <input type="radio"/> Northern Leopard Frog | <input type="radio"/> Prairie Vole |
| <input type="radio"/> Dragonfly | |



An activity to do at home with your family:

The following is a traditional recipe for wasna (pemmican) created by the Indigenous people of the Great Plains. It's nutritious, portable, and can last for months. The prairie provided everything they needed!

- Meat: dried bison, elk, or deer
- Fruit: dried chokecherries (or raisins/cranberries)
- Fat: lard or tallow (melted)

Blend/grind the meat and fruit into powder. Use a ratio of 2:1 (meat to fruit) and add melted fat a little at a time until the desired consistency is reached. Roll into balls or bars and let cool. That's it! Experiment with adding honey, spices, etc. and see what you can make.





YOUR MISSION AS A JUNIOR RANGER

EXPLORE! LEARN! PROTECT!



The Junior Ranger program is designed to help make meaningful connections to the special places protected by the National Park Service. We hope that you and your family enjoyed the program, learned a little about Pipestone National Monument, and of course had fun during your visit. We appreciate any suggestions and comments you have on how we can improve the Junior Ranger program.

If you were unable to finish the booklet during your stay, you can mail your completed booklet and address to:

Pipestone National Monument
Attn: Interpretive Department
36 Reservation Avenue
Pipestone, MN 56164-1269

Our park rangers will check your booklet and mail back your Junior Ranger booklet and badge.

Thank you to:

Dakota Language Educator Wambdi Wapaha
The Drapeau family for their wasna recipe
Gabriel Yellowhawk for his historic tool artwork
Tori Wheeler for her prairie artwork

