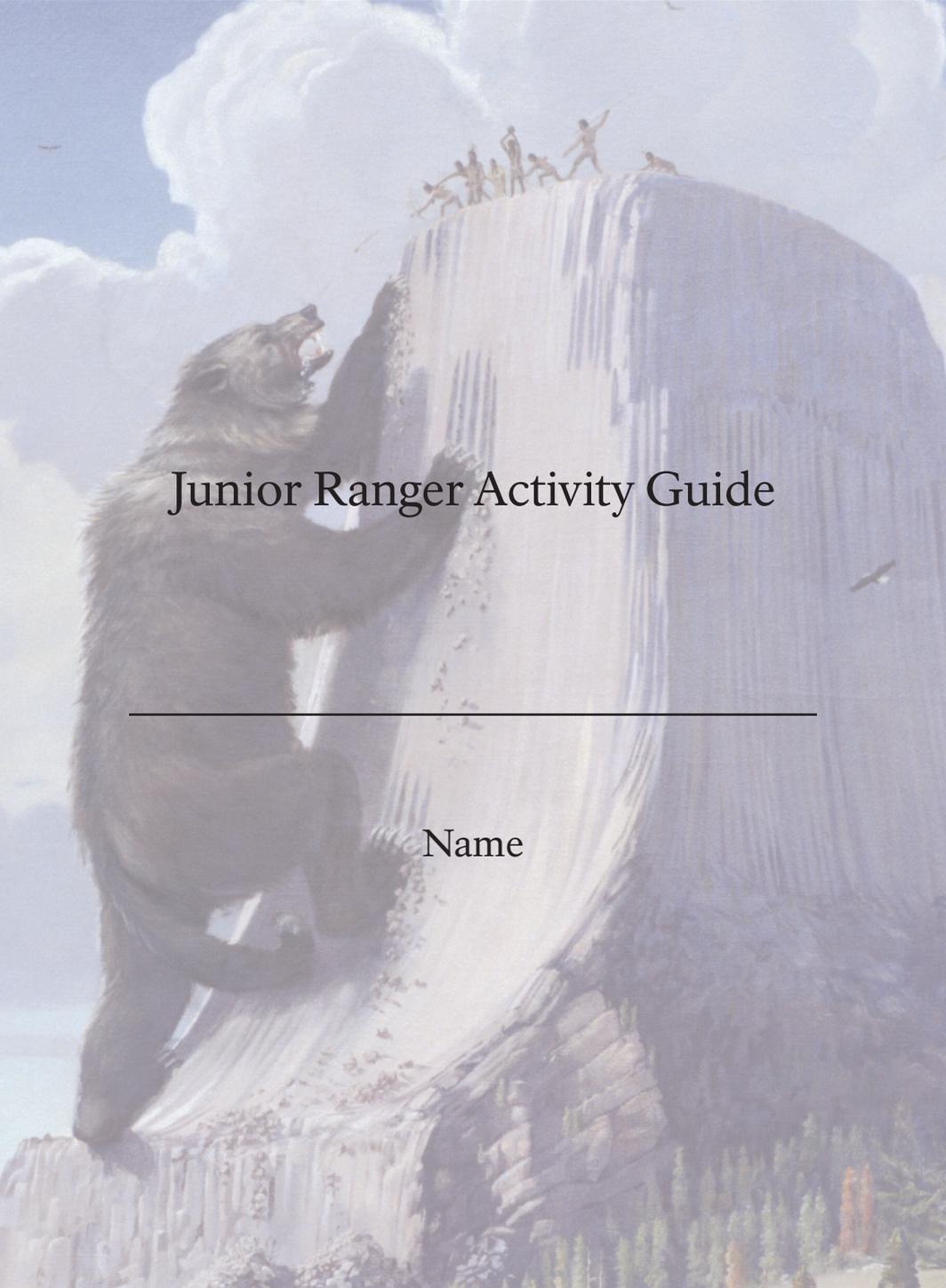


Devils Tower

National Park Service
U.S. Department of the Interior



National Monument
Wyoming



Junior Ranger Activity Guide

Name

Welcome to Devils Tower National Monument! Are you ready to earn your own Junior Ranger Badge? It's simple—just complete the activities in this book! You have to do one activity for every year old that you are. This page counts as one activity!

How old are you? _____

How many activities will you do? _____

There are 12 activities in the book. If you are older than 12, that is all you have to do! When you finish, bring your book to a ranger and ask them to check it.

STAYING SAFE ON THE TRAIL

When you are hiking...

1. Stay on the trails. This protects the rocks and plants that are next to the trail.
2. Bring a buddy! Make sure a family member or friend knows where you are.
3. Check the weather and wear the right clothes. Do you need protection from rain, sun, or other weather?
4. Bring water and snacks!

Can you think of other ways to stay safe?

Are there other things you would bring on your hike?

Respect the Park, Protect the Park

1. Keep nature free of litter—pollute your pockets, not your planet! Throw away your trash and clean up any you find.
2. Do not pick plants or wildflowers—let them grow!
3. Give animals lots of space! If you are slow and quiet you will see more animals than if you are fast and loud.

Draw a picture of a plant or animal that you might see in the park.



ANIMALS OF THE TOWER

Devils Tower is home to many different species of animals. Some of the animals are **nocturnal**. This means they like to come out at night. Porcupines and raccoons are two nocturnal animals. An animal that is out during the day is **diurnal**. Can you think of a species that is diurnal?

Finish the word search to "find" some animals that live around Devils Tower.

Raccoon

Red Squirrel

Turkey Vulture

Porcupine

Bluebird

Prairie Dog

Least Chipmunk

Mule Deer

Falcon

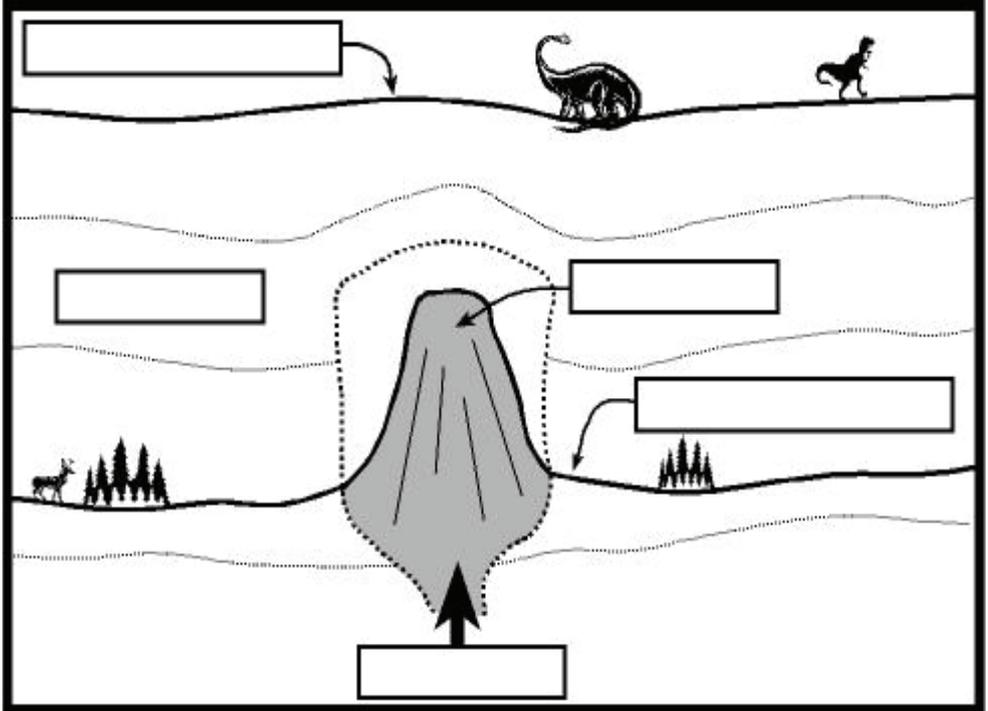
P W T D H Y A P F J J S P G V
L G L U T Q E D R A C C O O N
E P M T R C T E F E E Q L D S
A I R R O K E H L S P A Z E G
S G E G O D E I R I A R P W D
T V L N E H D Y I T E N J E R
C T G L I L F K V D R U F F I
H H U W J P X A S U D B X A B
I M S T P W U Q L K L C S I E
P A M Z O H U C Y C A T L A U
M D S V T I I Z R L O U U V L
U Y R F R K Y W I O F N G R B
N T H R X W D Y X H P W B Z E
K A E A R C A J T L J E A X L
Y L E L A T G C Z S F W W Q Y

GEOLOGY OF THE TOWER

*Geology is the study of the Earth and rocks. Scientists use geology to help explain how the Tower was created. Use the **bold** words to fill in the blanks of the puzzle below.*

The Tower formed about 50 million years ago. **Magma** (hot liquid rock) moved up from deep underground. It squeezed through **sedimentary** rock layers. If this magma had reached the **old land surface** it would have formed a volcano and erupted lava.

Instead, the magma cooled and hardened underground. It formed an igneous rock named **phonolite**. During the last five million years, water and wind eroded the sedimentary rock layers. As these layers disappeared, the harder Tower rock was left behind. Today, the Tower stands high above the **modern land surface**.



PRAIRIE DOG FACTS



There are five different species of prairie dogs across North America. Devils Tower is home to the black-tailed prairie dog.

Prairie dogs are not dogs at all. They are rodents that belong to the squirrel family. Early explorers called them "little dogs" because they make a barking noise. These barks alert other prairie dogs of dangers.

*At one time, over 4 **billion** prairie dogs lived across North America. Today there are less than 30 million.*

*Prairie dogs are a **keystone species** of the prairie ecosystem. A keystone species supports the other plants and animals that share the ecosystem.*

Prairie dogs can go their whole lives without drinking water. They get all of the nutrition they need from the plants that they eat.

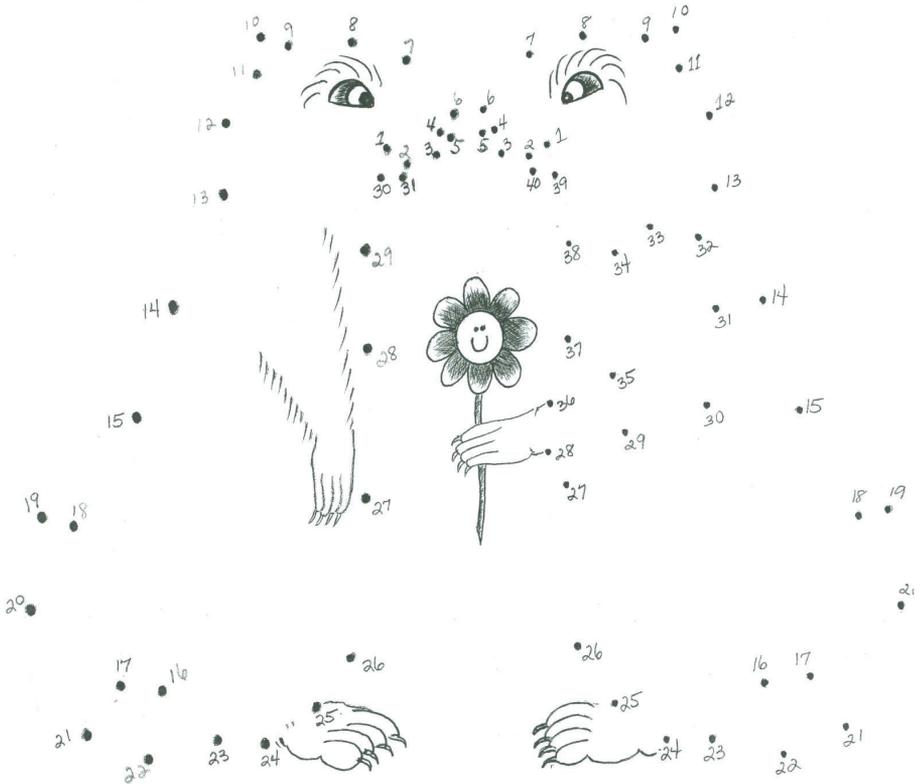
*A prairie dog family is called a **coterie**. Coterie usually include one male, three or four females, and several pups.*



Like all wild animals, it is important not to feed prairie dogs. Human food can upset their stomachs. Also, wild animals may bite you or carry disease.

WHAT COULD IT BE?

Connect the dots to complete the picture!



WHAT'S IN A NAME?

Activity #6

The Black Hills and the Tower are sacred to many American Indian tribes. These tribes have their own name for the Tower. Several of these names have to do with a bear's house.

Match the American Indian tribe with their name for the Tower.

HINT: look around the visitor center to find these names.

Lakota

DAXPITCHE'E AWAASUUA
(Bear's Home)

Kiowa

NA KOVEHE
(Bear Lodge)

Assiniboine

WOOX-NIII NON
(Bear's Tipi)

Crow

MATO TIPILA
(Bear Lodge)

Mandan

TSO-I-E
(Rock Tree)

Cheyenne

WAX-ANK-SIJA TIBI
(Place Where Bears Live)

Arapahoe

MAHDO WAKUPE
(Bear's Hat)

WILDFLOWERS

Activity #7

Besides trees, there are many plants in the forests and prairies at Devils Tower National Monument. One way to enjoy flowers and plants without picking them, is to draw them. This way, you can bring home a memory, and everyone else who visits can enjoy the same piece of nature you found.

Keys for Identifying and Drawing Wildflowers

- ◆ Look at the petal and leaf shape
- ◆ Count the number of petals, leaves, and blooms
- ◆ What colors does it have?
- ◆ How tall is the plant?
- ◆ Where is it growing? (In the sun or the shade? On a rock, under a tree, by itself, or with lots of friends?)



TECHNICAL CLIMBING



Use the **bold** words below to solve the crossword puzzle.

Did you know people have been climbing the Tower for over 100 years? The first climb was in 1893! Two local ranchers built a ladder into one of the cracks! The first technical climb of Devils Tower was in 1937. A famous climber named Fritz **Weissner** led the way to the top. The next year, a man named Jack Durrance led the second climb. **Durrance** continues to be the most popular climb here. Since the first climb, over 200 routes have been created!

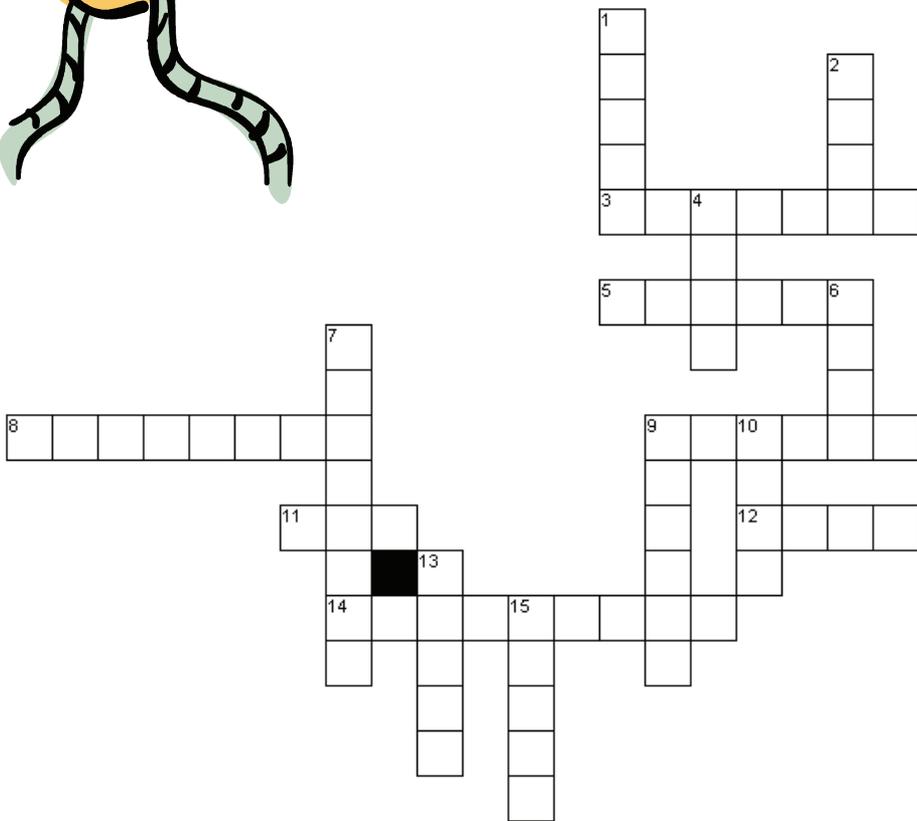
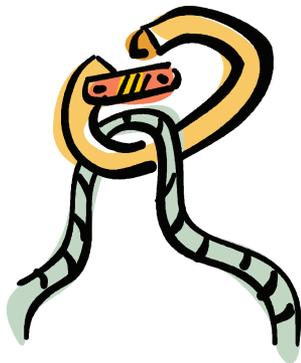
But how do they get up there? Climbers use a technique called free climbing. They jam their hand, arm, foot or leg into a **crack** in the rock. Special equipment is used to protect the climber if they fall.

That special equipment means climbers wear some funny looking gear! They wear tight-fitting shoes with sticky **rubber** soles. A climbing **harness** helps them carry gear and safety equipment. The most important piece of equipment a climber uses is a **rope**. Some ropes are over 200 feet long! They are very strong, and are able to withstand tremendous amounts of force—up to 5000 pounds! How much do you weigh?

Climbers place gear into the cracks as they climb. This gear helps catch them if they fall. **Nuts** can slide into a crack to create an anchor. A **cam**, short for camming device, is also used as they climb. Cams have a trigger which allows a climber to squeeze one into a crack. The climber releases the trigger, causing the cam to tighten inside the crack. These kinds of protection attach to the rope by a metal ring called a **carabiner**.

Climbers usually climb with partners. The **lead** climber goes first. Their rope runs down to their partner. The partner feeds more rope as the lead goes up. This system is called a **belay**. The belay system allows a climber to "catch" their partner by keeping the rope tight. When the lead climber reaches the end of the **pitch** (section of climb), they belay their partner up. While making their way up, the second climber removes the gear placed by the leader.

After they reach the top, climbers **rappel** off the Tower to get back down. This means they walk down the rock face while attached to their rope. The rope is secured to **anchor** above them. The anchor is often a permanent **bolt** drilled into the rock. When they reach the bottom, the climber pulls one side of the rope to remove it from the Tower. All of this and more happens in a single day of climbing! How would it feel to climb up the Tower? How would it feel to stand on top?



ACROSS

- 3. Special “belt” worn by climbers
- 5. Point used to secure rope for rappelling
- 8. The first rock climbing route on the Tower
- 9. The soles of climbing shoes are made of this
- 11. Short name for a “spring-loaded camming device”
- 12. The first climber in a group
- 14. Metal ring to clip gear into

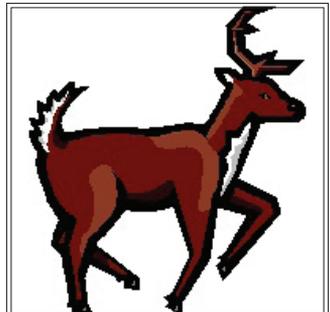
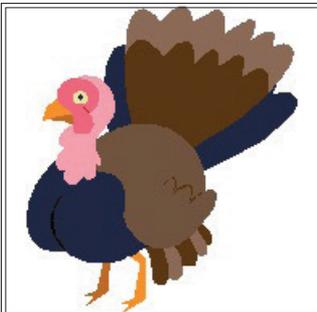
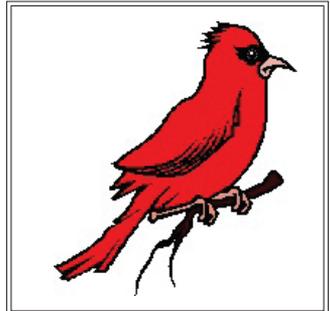
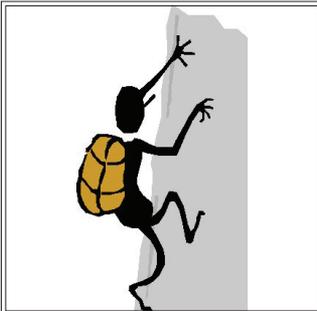
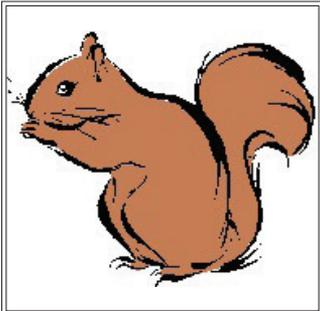
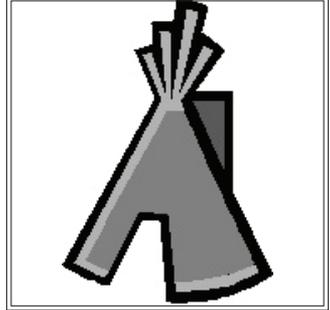
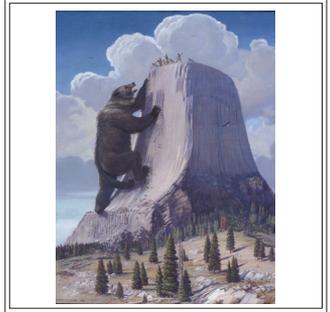
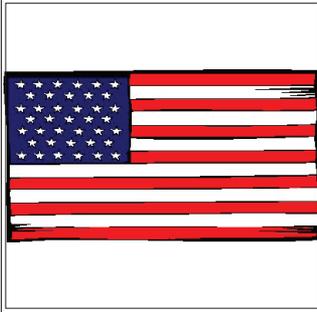
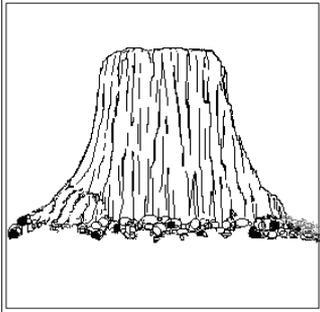
DOWN

- 1. One section of climbing
- 2. Climbing gear which slides into cracks
- 4. What the Tower is made of
- 6. The most important part of safety gear
- 7. The most popular route on Devils Tower
- 9. Technique used by most climbers to descend the Tower
- 10. Permanent anchor drilled into the rock
- 13. A split in the rock
- 15. Process of taking up or letting out a partner's rope

BINGO

Activity #9

Mark off the images you see below as you explore the visitor center and trails. Find at least half to score a BINGO!



FILL IN THE BLANK

Activity #10

Use the names in the word bank to fill in the blank spaces and discover history at Devils Tower.

Colonel Richard Dodge

Theodore Roosevelt

Steven Spielberg

Willard Ripley

William Rogers

George Hopkins

Devils Tower became America's first national monument in 1906. It was designated by President _____ o _____
_____ oo _____ t.

In 1893, Wi _____ ia _____ Ro _____ rs and _____ l _____ a _____ d
R _____ p _____ e _____ built a wooden stake ladder to become the first
men to climb Devils Tower.

Parachutist _____ e _____ r _____ e _____ p _____ i _____ s landed on top of
the Tower in 1941 and was stuck for 6 days!

Hollywood director _____ t _____ v _____ S _____ l _____
_____ featured Devils Tower in his film *Close Encounters of the
Third Kind*.

In 1875, _____ o _____ o _____ R _____ c _____
_____ o _____ g _____ led an expedition which gave the Tower its
name.

FIRES AND FLOODS

Activity #11

Fires and floods are a natural part of the ecosystem. Before humans interrupted this natural process, fires and floods crossed the prairies and forests for millions of years keeping them healthy. See how much you know about the value of fire and floods on the ecosystem at Devils Tower by answering the following TRUE or FALSE statements.



_____ Fire releases nutrients from plants back into the soil.

_____ All plants die when there is a fire in that area.

_____ Floods help new cottonwood trees grow and old ones get nutrients.

_____ Rivers can flood in the spring when snow melts in the mountains.

_____ Without regular burning, old branches and grasses pile up on the forest floor. This can let a fire burn out of control.

_____ All fires are bad for the environment.

_____ Dead or diseased trees burn faster than healthy trees.

_____ Fire can create places for animals to make homes.

TOWER JOURNAL

Today I visited Devils Tower: _____
(date)

I hiked the _____ trail.

The weather was:



My favorite part of the day was:

I learned a really cool fact:

I saw these animals:

I laughed when:

Let it be known that
by having successfully completed the prescribed course of study,

_____ is hereby awarded the title of

Junior Ranger

at

Devils Tower National Monument

with all the rights, privileges, honors, and responsibilities thereto pertaining.

Awarded by:

