Yellowstone National Park

Junior Ranger

Activity paper for ages 8 and up

Learn how to become a Junior Ranger by reading the instructions on the back page.

When you become a Yellowstone National Park Junior Ranger, you become a Junior Ranger in the oldest national park in the world. In 1872, President Ulysses S. Grant signed an act that made it a national park to protect it "for the benefit and enjoyment of the people."

You are one of more than three million people who come each year to see its natural beauty. As a visitor, you share 2.2 million acres with its wildlife, and you have an opportunity to help protect its wonders for future visitors.

By becoming a Junior Ranger, you recognize that Yellowstone National Park is important for both people and wildlife. One animal that lives in Yellowstone and depends on the park for its future survival is the grizzly bear. That's why the track of the grizzly bear is the symbol for this Junior Ranger program.

The bear is an animal most people want to see in Yellowstone, but the bear often stays hidden from people. The secretive grizzly bear symbolizes all that is wild in Yellowstone. The bear lives here—roams, feeds, and has its young—and we are lucky to share its wilderness. As long as Greater Yellowstone is preserved, grizzly bears and other animals that depend on this rich habitat will survive. As a Junior Ranger, you know that as long as you care about Yellowstone, you can help protect its future.

We hope you'll become a Yellowstone National Park Junior Ranger, and we hope you enjoy your visit in Yellowstone.

Explore
Learn
Protect

Become a Yellowstone Junior Ranger and ...

- Learn interesting facts about Yellowstone's wildlife, plants, and geology.
- Understand the importance of preserving national parks for future generations.
- Discover that becoming a Junior Ranger is both fun and challenging. It's even something you may want to do in other parks that have Junior Ranger programs.
- Realize that becoming a Junior Ranger is just a beginning. After you visit Yellowstone, you can continue to learn about natural places—even in your own neighborhood and community.
- Receive the Junior Ranger patch with the track of the grizzly bear and be recognized by park rangers as someone who really cares about national parks and all natural wonders.

Yellowstone
Junior Ranger Pledge

As a Yellowstone Junior Ranger, I promise to do all I can to help preserve and protect Yellowstone's wildlife and natural features. I will continue to learn about and care for the natural world even after I leave Yellowstone.

_____

Print Name

- To learn more about your national parks and to become a WebRanger, visit www.nps.gov/webrangers
- To take part in free e-trips to Yellowstone National Park, visit www.windowsintowonderland.org

You Are Here

Use this map to trace your route through Yellowstone National Park. This map and the journal on page 3 will help you remember your visit.

- ☐ Be sure to show where you entered the park and mark each place where you stayed overnight.
- ☐ Show any trails that you hiked or roadside exhibits that you visited.
- ☐ Draw some of the things you saw along the way, such as geysers, wildlife, trees and flowers, mountains, meadows, and rivers.
- ☐ Maybe you'll be lucky enough to visit Yellowstone again in the future. Use the map in the park brochure to find names of places you would like to visit on your next trip. Write them here and then draw a circle around them on the map.

Places I want to visit on my next trip:

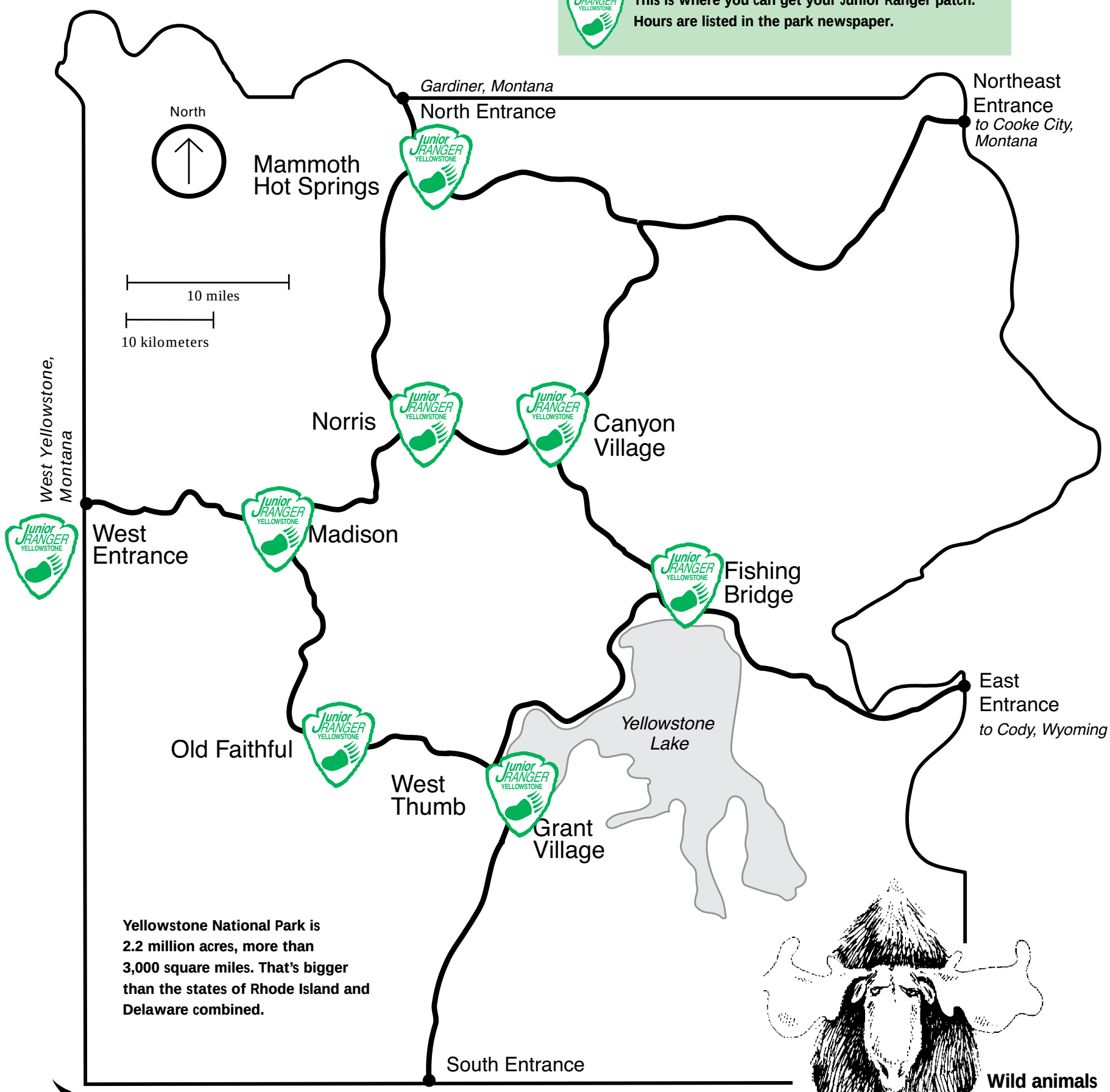
_____

_____

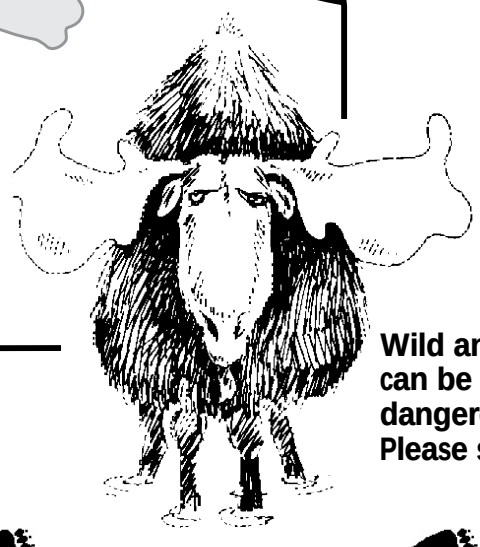
_____

We hope to see you on your next trip to Yellowstone wearing your Junior Ranger patch.

This is where you can get your Junior Ranger patch. Hours are listed in the park newspaper.



Yellowstone National Park is 2.2 million acres, more than 3,000 square miles. That's bigger than the states of Rhode Island and Delaware combined.



Wild animals can be very dangerous. Please stay back.

Your Park Journal

Rangers use journals to keep a record of what they see, what they do, and what they think. Today, we still read the journals kept by early travelers through Yellowstone—such as trapper Osborne Russell in the 1830s and surveyor Ferdinand Hayden in the 1870s.

Now you have the chance to record your own trip. Use the journal page below to describe some of your Yellowstone experiences. Who do you think will be interested in reading your journal . . . today? In 10 years? In 20 years?

This journal page is written by _____
on _____ in Yellowstone National Park.
Date

Find a place in Yellowstone that you really like. While you're there, find a quiet place and write down everything you can see. Then write down everything you can hear. Why do you like this place? Where is it?

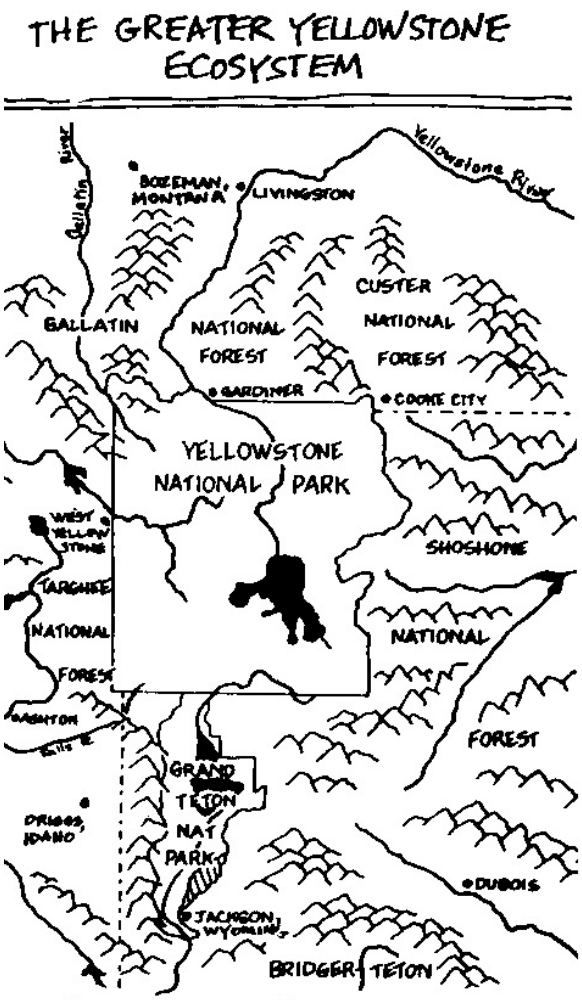
If you could be any animal in the park, which one would you be? Why?

If you were a ranger, what would be your favorite part of the job? Why?

Describe one thing that happened on your trip through Yellowstone that you want to remember forever!

Finish your journal page by drawing your favorite Yellowstone place, animal, or flower.

The Big Picture



Greater Yellowstone Ecosystem Word Puzzler

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

How many plants and animals can you find?

As you circle each word in the puzzle, remember to check it off the list. There are 42 different words in the puzzle, but you only need to find 35 for this page to count toward your patch.

_____ algae
_____ bacteria
_____ berries
_____ bighorn sheep
_____ bison
_____ black bear
_____ bobcat
_____ bullsnake
_____ Canada geese
_____ coyote
_____ deer
_____ eagle
_____ elk
_____ fox
_____ grasses
_____ grasshopper
_____ grizzly
_____ ground squirrel
_____ grouse
_____ human
_____ kingfisher
_____ lynx
_____ magpie
_____ mayfly
_____ mice
_____ moose
_____ mountain lion
_____ osprey
_____ otter
_____ owl
_____ pelican
_____ peregrine falcon
_____ pine marten
_____ pinenuts
_____ pronghorn
_____ red-tailed hawk
_____ short-tailed weasel
_____ stonefly
_____ trout
_____ trumpeter swan
_____ willow
_____ wolverine

If you hear people speak about the Greater Yellowstone Ecosystem, they're talking about Yellowstone National Park, the area that surrounds it, and all of the plants and animals that live there. In an ecosystem, everything is connected to everything else, like a puzzle. If you have all the pieces to the puzzle, then the ecosystem, and all the plants and animals in it, will usually be healthy.

In the Greater Yellowstone Ecosystem, most of the pieces to the puzzle are still here. In fact, Yellowstone is one of the most complete ecosystems in the lower 48 states. This doesn't mean everything is perfect though. Not every part of the area is protected like the park, so the growth of nearby cities and towns can affect the plants and animals. As humans, it is our responsibility to make sure that the ecosystem stays healthy. After all, the plants and animals have nowhere else to go.

Did you know?

The Greater Yellowstone Ecosystem covers 18 million acres—larger than the state of West Virginia—and extends into Wyoming, Montana, and Idaho. At its center is Yellowstone National Park, home of diverse vegetation and wildlife populations, and more than half the world's geysers.

Healthy Habitats

While you are in Yellowstone, you will travel through several types of habitat; including grasslands; wetlands along rivers, lakes and marshes; forests; and rocky mountain slopes. Many different animals depend on these habitats for their survival. Remember that habitat is the food, water, shelter, and space that animals need to live.

☐ As you visit Yellowstone's different habitats, add what you see to each of the drawings below. Look closely—and draw the trees, grasses, wildflowers, and animals. If you know the names of the plants and animals, write them in at the bottom of the box. For more information, ask for a free copy of a wildlife checklist at any visitor center.

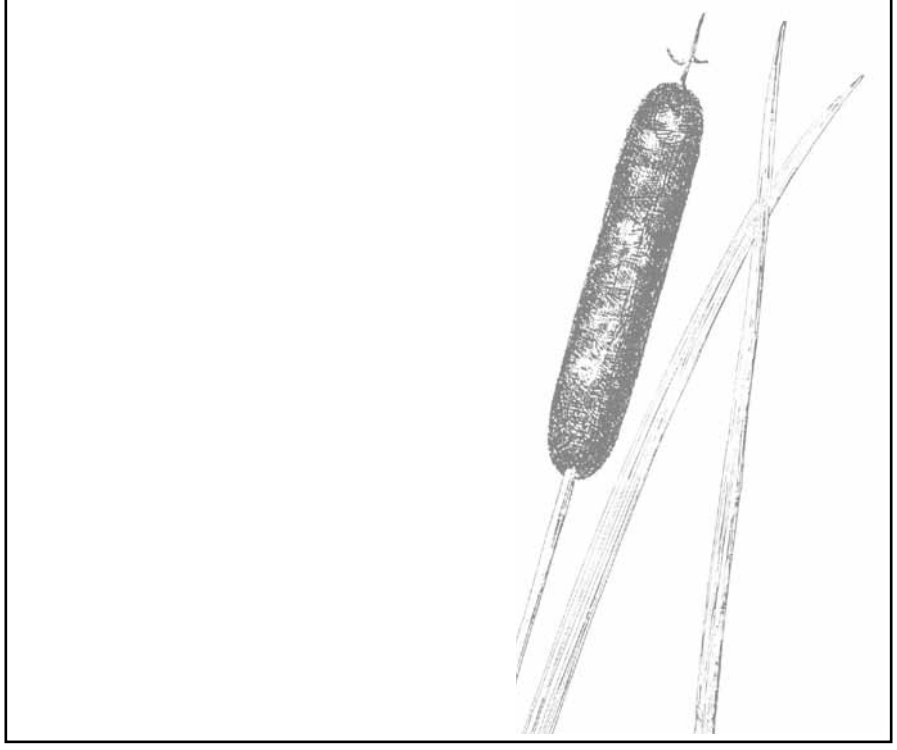
Did you know?

Yellowstone National Park has more than 400 species (or types) of animals, including:

- 4 amphibians
- 6 reptiles
- 16 fish
- more than 60 mammals
- more than 320 birds

To have this page count toward a Junior Ranger patch, you need to complete at least three of these drawings.

Grasslands



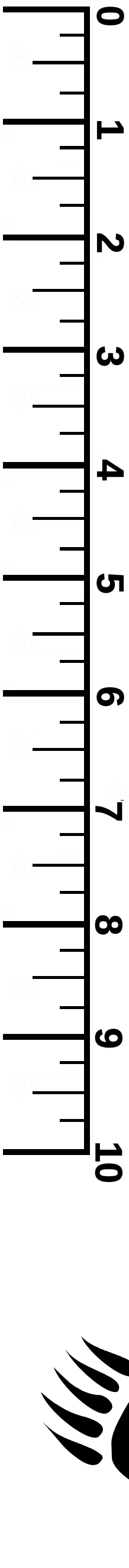
Aquatic/wetlands

Forests

Mountain slopes

Reading Tracks

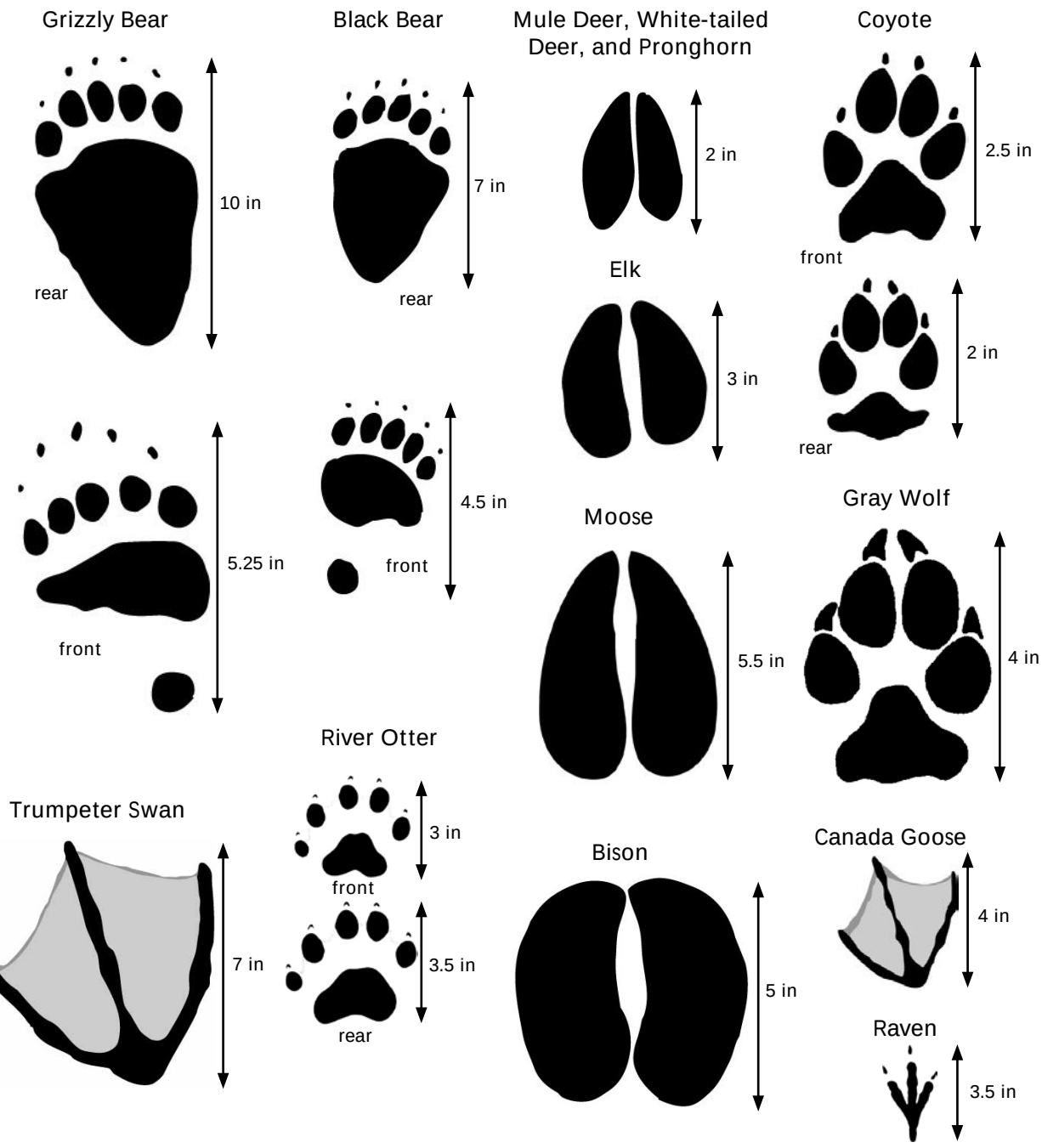
Inches



Tracks can tell you a lot about animals. Reading tracks tells you a story because track patterns can sometimes tell you what the animal was doing. Some patterns may show the animal was walking, running, or stopped to feed. Identifying tracks is also helpful to park rangers who want to learn more about the habits of animals they don't often see, such as otters and mountain lions.

Try identifying tracks in Yellowstone using these drawings. Draw tracks you find in the box below. Look for other signs, such as scat (animal droppings), hair, feathers, nests, burrows, marks on trees, or gnawed plants. These signs can also help you identify an animal.

- One of the best places to look for tracks is in the soft sand and mud along edges of rivers or lakes. **Caution:** Bring an adult with you and always be careful around water.
- Morning is a great time to find fresh tracks. **Caution:** Many animals are active in the morning, so make noise while you're tracking. Animals don't like to be surprised.



Keeping track of Yellowstone's animals

- Find an animal track and draw it here.
- How long is it? How wide is it?
- Where did you find it?
- Is it in sand, mud, soft dirt?
- What animal do you think made this track?
- What do you think it was doing?
- What other signs of animals do you see?

Bear Country

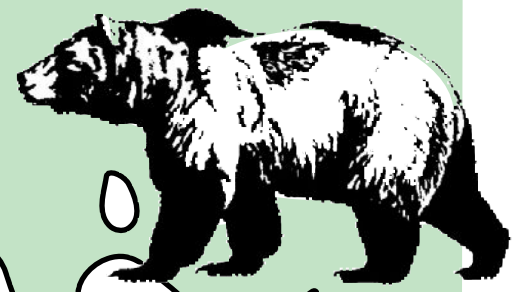
Yellowstone National Park is home to both black and grizzly bears. Although it's difficult to count Yellowstone's bears, rangers think black bears are common and that about 150 to 200 grizzly bears live entirely in the park. But bears are secretive animals, and visitors to the park do not see them as often as they see elk or bison. If you are lucky and you see a bear, remember:

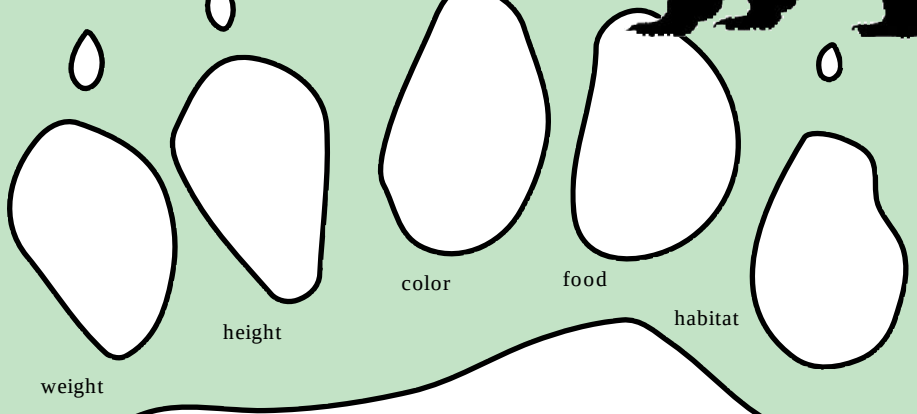
- Bears are wild and can be dangerous. **Always stay at least 100 yards (the length of a football field) away from bears and wolves.**
- Bears don't like surprises. If you are hiking, be sure to make noise by talking loudly or singing. When bears hear you, they know you are nearby, and usually they will leave the area.
- Bears with cubs and bears feeding on a carcass (a dead animal) can be **very** dangerous. They will protect what is theirs, and they don't want you near them.
- Never feed a bear or any other wild animal.
- Please report all bear sightings to a ranger.

1 ☐ Find each bear's **weight**, **height**, **color**, **food**, and **habitat** in the text and write them in or near the toes of their tracks. Habitat is where an animal lives and finds its food, water, shelter, and space.

2 ☐ Trace the shape of your own left footprint over one of the bear tracks. How is your track like the bear's track? How is it different?

Grizzly Bear





Grizzly bears, with their shoulder hump of strong muscle and long front claws, feed and roam in Yellowstone's open meadows, close to forested hillsides. Sometimes seen with silver-tipped hair, grizzlies can be brown, black, cinnamon, or even blond. Although they measure about 3-1/2 feet at the shoulder, they can reach nearly 7 feet when they stand on their hind legs. Adult bears can weigh from 200 to 700 pounds (averaging about 350 pounds). However, being big doesn't slow them down; both grizzly bears and black bears can easily run up to 45 miles per hour for short distances.

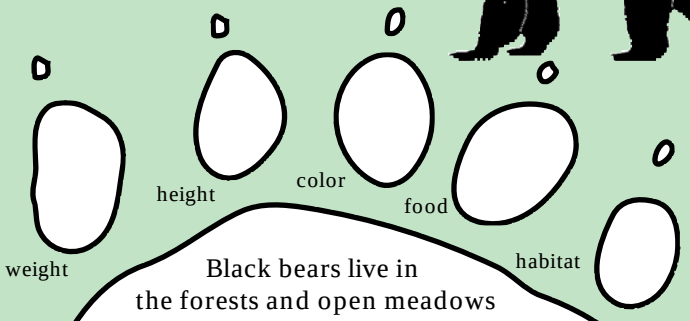
Bears have a keen sense of smell that helps them to find food and to know when other animals, including humans, are nearby. Grizzly bears like to feed on lots of plants (like grasses, roots, berries, and pinenuts) and some meat (like wolf-killed carcasses, elk, spawning trout, or small burrowing animals). They also like to eat insects (like ants, grasshoppers, and moths).

In addition to digging for some of their food, grizzly bears use their 3 inch long claws to dig their winter dens. While in their dens, cubs, weighing only about 1 to 1-1/2 pounds, are born. For the next couple of months, the cubs feed on the rich milk of their mothers, and when they emerge from their dens in the spring, they weigh between 5 and 10 pounds. Grizzly bear cubs frequently spend 2 years with their mother before going on their own during the spring of their third year. A grizzly bear mother may raise 4-6 litters in a lifetime.

Did you know that while bears are sleeping in their winter dens, they don't eat, drink, or go to the bathroom?

Actual size track—
left hind foot of a grizzly bear

Black Bear



Black bears live in the forests and open meadows of Yellowstone. They spend much of their time, spring through fall, looking for food. A black bear's diet is similar to a grizzly bear's; most of its food is plants (like grasses, berries, nuts, some roots, and occasionally the soft chewy layer of wood beneath tree bark). They eat some meat (like carcasses, small rodents, elk, spawning trout, frogs, or salamanders). Black bears eat almost any insect, especially ants.

Black bears come in a variety of colors. They may be black (with a light brown nose), brown, cinnamon, or blond. Black bears are smaller than grizzly bears, and adult black bears can weigh from 135 pounds to more than 300 pounds. They measure about 3 feet at the shoulder. Black bears, even cubs, are excellent climbers, and their short 1-1/2 inch claws help them climb trees for protection and to reach pine cones for their nuts.

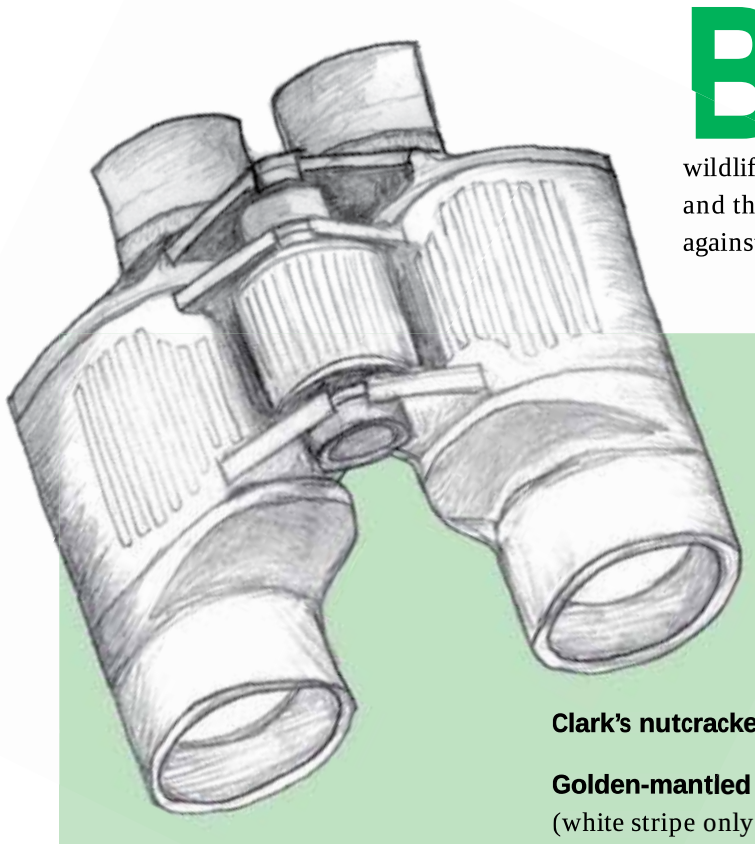
A black bear makes its den in a natural cavity among rocks, a hollow tree, a den abandoned by another animal, or it digs under rocks, logs, or tree roots. When born, cubs weigh only 10 to 20 ounces and are only 8 to 10 inches long. When they leave the den, they're about 5 pounds. Black bear cubs stay with their mother a little over 1 year. A black bear mother may raise 6-8 litters in a lifetime. Do you know how much you weighed when you were born?

Actual size track—
left hind foot of a black bear

Did you know?

Some animals–such as coyotes, mountain lions, and deer–walk on their toes. But others–such as bears–walk flat-footed, just like you do.

Wildlife Watching



Binoculars let you get a close-up look at wildlife without getting too close. It's important that anytime you are watching wildlife, you keep a safe distance between you and the animals. Did you know that it's actually against the law in Yellowstone to get too close to an animal? Too close means within 25 yards (one-fourth the length of a football field) of all wildlife except bears and wolves—and you have to stay at least 100 yards away from them. Regardless of distance, if any animal changes its behavior due to your presence, you are too close.

1 ☐ Use the binoculars on this page to imagine that you are taking a close-up look at some of Yellowstone's animals. Identify the animals by drawing a line from the name of the animal to its picture or by writing its name in the circle.

2 ☐ As you see these animals in the park, color in their circles or put boxes around their pictures.

Clark's nutcracker (black wings with white tips)

Golden-mantled ground squirrel (white stripe only on its back)

Chipmunk (stripes on back and face)

Red squirrel (no stripes, large, bushy tail)

Yellow-bellied marmot (often seen sunning on rocks)

Grizzly bear (hump on shoulders)

Black bear (light-colored nose)

Bighorn sheep (curled horns)

Mule deer (white rump and black-tipped tail)

Osprey (white head with dark stripes)

Bald eagle (all-white head and tail)

Canada goose (large water bird with white chin and cheeks)

Coyote (yowls and yips)

Bison (tall hump at shoulders)

Elk (bull has large, branching antlers)

Pronghorn (white stripes on neck)

Moose (bull has large, wide antlers)

Raven (large, black bird)

Pelican (pouch in bill for catching fish)

Did you know?

Yellowstone National Park is home to two threatened species (the grizzly bear, and the Canada lynx).

Wildland Fire

The summer of 1988 will be remembered for a long time. During that summer, fires affected about one third of Yellowstone National Park and many people thought Yellowstone was destroyed. They seemed to forget that fires were not new to Yellowstone—major fires like the ones in 1988 have occurred here every 150 to 300 years for the past 10,000 years.

Learn more about Yellowstone's fires by completing each sentence on this page. ☐ Pick an answer from the list below and write the **word** in each sentence blank. ☐ Then, write the **number** of the answer in the proper box in the **magic square**. When you add the numbers of each row across, you'll find the total is 34. When you add each column down, you'll find the total is also 34. It's magic. To solve the magic square, visit the Yellowstone and Fire exhibit at the Grant Visitor Center.

A) Most of Yellowstone's fires are started by _____.

B) Fires are driven through the forest by _____.

C) Mountain bluebirds sometimes build _____ in burned trees.

D) Trees killed by _____ may burn easily in hot, dry years.

E) _____ was the driest year in the park in a long, long time.

F) Lodgepole pine _____ often sprout in a burned area after a fire.

G) Fires that burn the tree crowns let more _____ reach the forest floor, so grasses and flowers can grow more easily.

H) Ashes from a fire fall on the ground as a kind of natural _____, which helps plants repopulate burned areas.

I) Most of the park's large _____ easily avoid fires. Very few are ever killed.

J) Fire is a natural _____ that has helped create the Yellowstone landscape we see today.

K) Sometimes you can see _____ trying to capture insects from beneath the loose bark of burned trees.

L) _____ trees often sprout in burned areas after a fire has passed through.

M) _____ cones from lodgepole pines open up during fires and spread their seeds to the forest floor. This ensures that the lodgepoles will survive major fires.

N) Forest soils are usually not damaged too much in a fire because most of the heat goes_____ not down.

O) Douglas firs have very thick _____, which helps to protect them from fire.

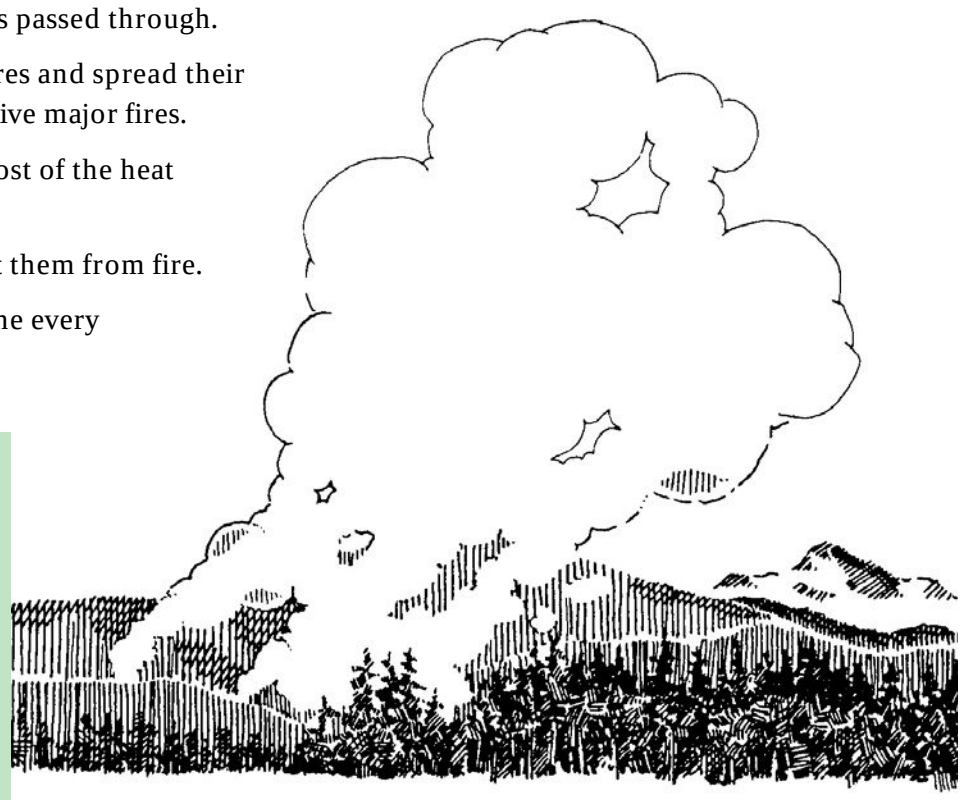
P) Over the last 10,000 years, major fires have occurred in Yellowstone every _____ years.

Wildland Fire Magic Square

A	B	C	D
E	F	G	H
I	J	K	L
M	N	O	P

Did you know?

Each year, lightning starts about 22 fires in the park. In 1988, hundreds of fires started this way. Two were human caused. Outside of the park, most forest fires (9 out of 10) are caused by people and roughly 30 percent are started deliberately.



Wildland fire answers

(Use each answer once)

1) 150 to 300
2) wind
3) nests
4) serotinous
5) 1988
6) woodpeckers
7) process
8) fertilizer
9) animals
10) sunlight
11) seedlings
12) aspen
13) pine bark beetles
14) up
15) bark
16) lightning

Letting Off Steam

As a visitor to Yellowstone, you know that Yellowstone is famous for its geysers.
Do you also know that:

- Yellowstone has more than 300 geysers. That's more than half of all the known geysers in the world.
- Yellowstone has the tallest active geyser in the world. Look for Steamboat Geyser at Norris.
- The Upper Geyser Basin, near Old Faithful, has more than 150 geysers within about one square mile.

So just how do these famous geysers work?

A **geyser** needs three things to erupt: water, heat, and a strong plumbing system. Let's take a closer look at each.

- **Water**—The water for geysers in Yellowstone comes from rain and snow (mostly snow) which seeps into the ground through cracks.
- **Heat**—Not too far underground in Yellowstone is molten rock called **magma**. Magma is the heat source for all of Yellowstone's hot springs and geysers. The magma heats up surrounding rocks, which in turn heat up the water seeping underground. When the water gets hot enough, it begins to rise back up towards the surface.
- A strong **plumbing system**—Geysers need strong "pipes" underground to withstand the violent force of an eruption. Cracks in the silica-rich bedrock form a plumbing system that can hold up to the high **pressure** of a geyser eruption.

☐After reading about geysers above, explain how they work by filling in these blanks. Answers appear above as words that are **bold**.

Before a geyser erupts, it fills with _____. Once the geyser is full or nearly full of hot water (hotter than boiling because of the intense heat of the _____ and pressure of overlying water), the _____ is almost ready to erupt. The underground water continues to _____ and more water boils, forming more steam.

The steam forms more and more bubbles in the strong _____ until the steam bubbles force hot water out of the geyser's throat. Once the overlying _____ of water in the geyser has been reduced by the belch of water caused by steam bubbles, the geyser erupts! The eruption continues until the water in the geyser is gone or the temperature drops below boiling. Then the process begins all over again—filling with water, heating and boiling, leading to the next eruption.

Old Faithful

The most famous geyser is also one that rangers-and you-can predict.

Did you know?
The many colors you see in hot springs are made by microscopic organisms (bacteria, algae, and archaea) living in the hot water.

What's Your Prediction?

1 Wait for Old Faithful to erupt, then time its eruption from when water begins splashing continuously out of the cone until only steam is coming out.

A: starting time = _____ **A**
B: ending time = _____ **B**
C: length of eruption to nearest half minute = _____ **C**

2 Using the table below, find the length of the eruption (**C**) in the first column. Read directly across to the second column.

Length of eruption:	Time to next eruption:
less than 2.5 minutes	62 minutes
between 2.5 to 3.5 minutes	80 minutes
more than 3.5 minutes	89 minutes

Write that number here: **D** = _____ **D**

3 Add the start time for the first eruption (**A**) with the amount of time to the next eruption (**D**) to come up with your prediction for the next eruption.

A _____ + **D** _____ = ☐

Visit the Old Faithful Visitor Education Center. Find and write down what the rangers predict for the next eruption = _____
How does it compare with yours?

If you are still at Old Faithful for the next eruption, write the time it started here = _____

Compare the actual starting time to your prediction and that of the rangers. How accurate were you? Old Faithful changes all the time, so any prediction may not prove to be exactly right.

Hot Spots

Right now you're standing on top of a volcano. Imagine yourself standing here 640,000 years ago:

You hear a deep rumbling rolling across the landscape. Suddenly there's a deafening explosion. Hot volcanic ash and pumice spew out from great cracks in the earth's surface. Dust clouds blacken the sky, and volcanic debris covers thousands of square miles. Abruptly, a great smoldering pit—a caldera 30 miles across, 45 miles long and several thousand feet deep—appears. The **Yellowstone Caldera** is formed. Over many of the years following, the caldera is filled in by lava flows oozing from cracks in the earth's surface.

This spectacular geologic event is largely responsible for the Yellowstone we know today. Hot molten rock, called **magma**, is still here underneath the caldera, providing heat for all of Yellowstone's famous thermal features.

- **Hot springs** are pools filled with hot water that do not erupt.
- **Geysers** are hot springs that throw hot water and steam into the air.
- **Mudpots** are filled with hot bubbling mud.
- **Fumaroles** are steam vents that don't have enough water to be hot springs.

The hot water in hot springs and geysers carries minerals from underground and deposits them on the surface in beautiful and strange formations. In geyser basins, this rock is called **geyserite** or **sinter**. At the Mammoth Hot Springs, you see terraces formed of a different kind of rock, called **travertine**.

As you visit Yellowstone's thermal features, be sure to look for all the different colors. Most of the brilliant shades of yellow, orange, brown and green that you see come from **bacteria** and other microscopic organisms that live in hot water.

Just think . . . Yellowstone is really a big volcano and you are standing right on top of it.

Hot Spots Word Puzzle

After you read the information on this page, fill in the missing words in the puzzle. The letters in the circles spell out the answer to the question found in the box at the very bottom. As you travel through the park, be sure to look for all the interesting thermal features that you have learned about. Choose your answers from the words printed in **BOLD** on this page.

1. Many of the colors found in thermal water come from different kinds of . . .

— — ○ — — — — —

2. The Mammoth Hot Springs terraces are made of a rock called . . .

— — ○ — — — — — — —

3. Another name for a steam vent is . . .

— — — — — — ○ —

4. To protect the thermal features, walk on the trails and . . .

— — — — ○ — — — — —

5. Old Faithful's water deposits a rock called geyserite or . . .

— — — — ○ —

6. Thermal features include fumaroles, mudpots, hot springs and . . .

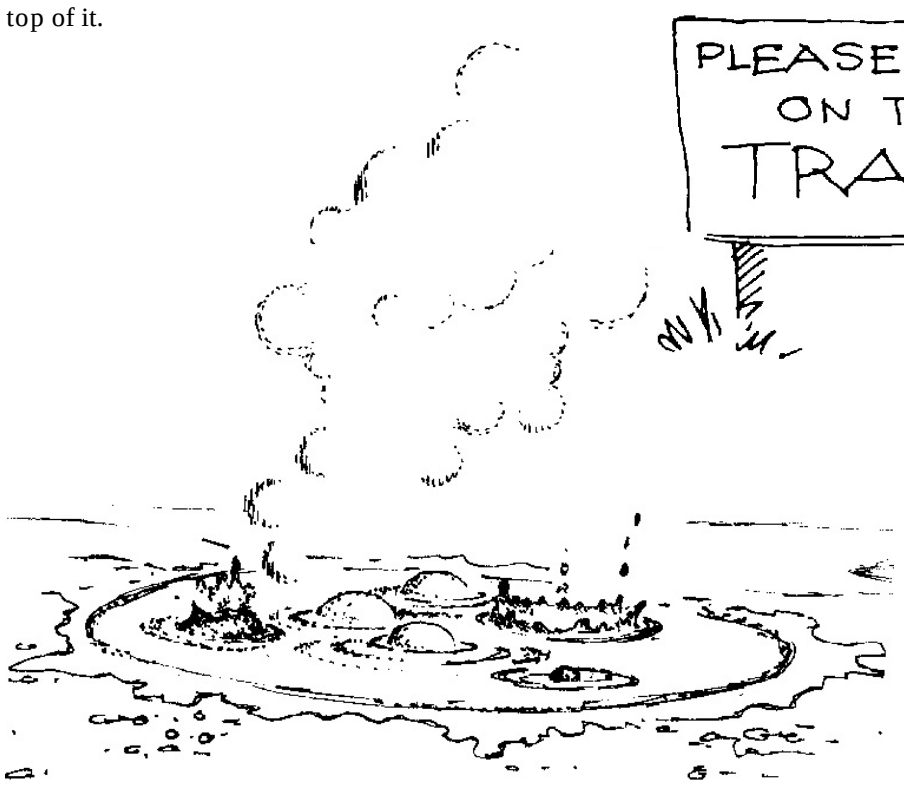
— — — — — ○ —

7. The molten rock underground that heats water for thermal areas is called . . .

— ○ — — —

What geologic feature in the central portion of Yellowstone measures 30 by 45 miles and was formed 640,000 years ago by a massive eruption?

The Yellowstone __ __ __ __ __ __ __



Use caution in thermal areas: Always stay on trails and boardwalks

Formations in thermal areas are unique and very fragile. They can be destroyed easily by walking or climbing on them. Protect them for future generations. **The trails and boardwalks also protect you**. In Yellowstone, water boils at about 92°C (199°F), and some thermal features can reach as high as 138°C (280°F).

Keep a safe distance from all thermal features—**stay on trails and boardwalks**. Remember also, never throw anything into a hot spring.

What You Need To Do

Earn a Yellowstone Junior Ranger patch by completing 1-8 on this page.
After you finish, take this newspaper to a visitor center or another location listed on page 2, to be checked by a ranger.

☐ **1** In addition to this page, complete the required number of activity pages below

Age	Number of Pages
8 - 9	any 4
10 - 12	any 6
13 and up	all pages

I have completed this many pages:_____

_____
Child's signature

_____
Adult's signature Date

☐ **2 Attend at least one park ranger program.**
A complete list of activities can be found in the park newspaper or at visitor centers.

Name of program:

What did you learn?

Ranger's signature Date

☐ **3 View one visitor center or roadside exhibit and tell about it.**
Title and location of exhibit:

What did you learn?

☐ **4 Take a walk on any self-guiding or other park trail or boardwalk.**

Name of trail:

_____
Adult's signature Date

☐ **5 Why do you think national parks are important?**

☐ **6 Hunt for the answer to <u>three</u> of the following questions:**

a) Who is the artist whose paintings helped Yellowstone become a national park? (Hint: Answer can be found at Albright Visitor Center at Mammoth Hot Springs or Canyon Visitor Education Center.)

b) Which geyser is the tallest in the world? (Hint: Hike the Back Basin at Norris.)

c) What fish-eating bird commonly nests in the Grand Canyon of the Yellowstone? (Hint: Answer can be found at the Canyon Visitor Education Center.)

d) What illegal things do humans sometimes do that can destroy or change the activity of thermal features? (Hint: Answer can be found on an exhibit in all hydrothermal areas.)

e) Why do you think it is no longer legal to fish from Fishing Bridge? (Hint: Look for answer on a sign on Fishing Bridge.)

f) How does fire help lodgepole pines reseed an area? (Hint: Answer can be found at the Grant Visitor Center Fire Exhibit.)

☐ **7 Understand park rules. Some of the important ones for you to know are:**

- Do not feed the wildlife.
- Always stay at least 100 yards from bears and wolves, and at least 25 yards away from other wildlife.
- Stay on boardwalks and trails.
- Do not throw anything into hot springs.
- Do not pick wildflowers.
- Put all trash in garbage cans. Recycle aluminum, glass, plastic, paper and cardboard.

Why do you think these rules are important?

During my visit to Yellowstone, I have followed the park's rules.

_____
Child's signature

_____
Adult's signature Date

☐ **8 Read the Junior Ranger Pledge on page one to an adult and understand it.**

_____
Adult's signature Date

To earn a Junior Ranger patch, fulfill all requirements above. A minimum of two days is recommended for completion. Adults may assist a child in answering questions and completing activities, but the work must be the child's own.

I have read and fully understand the requirements for the Junior Ranger program.

_____ _____ _____
Child's signature Age | Adult's signature Date | Issuing Ranger

The Yellowstone National Park Junior Ranger patch is awarded to:

_____ on _____ by _____
Name | Date | Ranger's signature

You can also send your completed paper to: Junior Ranger Coordinator, P.O. Box 168, Yellowstone, WY 82190

Printed on recycled paper with soy ink. **Spring 2012**