SUMMER ADVENTURES
ON THE ROAD

Along the Way...
Road trips are a fun time to play games with family and friends along the way. Enjoy these games and activities whether you are on a real road trip or on a virtual exploration.

READY TO EXPLORE?

PG 3
Make a Geyser
All Ages

PG 4
Author a Camping Story
Ages 4-8

PG 9
All Around Yellowstone
Ages 4-8

PG 11
Old Faithful Needs Some Color
All Ages

PG 12
Kahoot
Ages 9+

PG 13
Earthquake
Ages 9+

PG 15
What is a Wolf’s Favorite Holiday?
Ages 9+

PG 16
True or False?
Ages 9+

PG 18
Answers (no peeking!)

Book List
MATERIALS
A bottle of soda pop
Two pieces of cardstock, each about 8” x 12”
A tube of mints (Mentos work best!)

WATCH AND READ
Have you ever opened a soda bottle and it exploded? Pssst! That small explosion was caused by the same dynamics that cause the geysers in Yellowstone National Park to erupt.

Watch *Geyser and Springs of Yellowstone* from National Geographic and observe geysers in action. Think about how the geysers are different from the hot springs.

Before you make your geyser, do some research and answer the questions below.

- What is a geyser?
- How is a geyser different from a hot spring?
- What makes a geyser blow?
- What are three active geysers in Yellowstone National Park?

TO DO
Now, make your own geyser! Follow this guide from National Geographic Kids for step-by-step instructions.

Create a landscape in a sandbox and surround your geyser with grasses and animal figurines to make it look even more realistic. Then, set your geyser inside of it.
MATERIALS
Pen or pencil
Crayons or colored pencils
Device with internet connection (optional)

TO DO
Write a story about camping with your family or friends in Yellowstone. If you need to find out more about camping in the park, visit the park website or find a relevant book at the library.

Use the story starters in each section to write about your camping visit to Yellowstone National Park or write your own story starters!

CAMPING STORY PART 1
Story Starter:
Yellowstone National Park is...______________

Writing Thought Starters:
Where is Yellowstone National Park?
Are you excited to go on your camping trip?
What time of year are you going?
Who is going with you?
Illustrate your story.

CAMPING STORY PART 2
Story Starter:
We arrived at Yellowstone National Park early one (season) morning. Along the way we stopped to see...___________

Writing Thought Starters:
Write a sentence or two to describe the sites you visit. Learn more about them here. Possibilities: Old Faithful geyser Mammoth Hot Springs Tower Fall Bison herds Fishing Bridge on Yellowstone Lake

CAMPING STORY PART 3
Story Starter:
After a long day touring through the park, we stopped at Grant Village Campground to spend the night at our campsite. Once there...__________

Writing Thought Starters:
What was your tent like?
Explain how you pitch a tent.
Did you make a campfire? How?
What did you cook on your campfire?
Did you make s’mores? How?
What was it like to sleep outdoors in a tent?
Illustrate your story.

CAMPING STORY PART 4
Story Starter:
We had so much fun...___________

Writing Thought Starters:
How long did you stay on your camping trip?
Describe a funny, weird, or exciting event.
Would you do this again someday?
Illustrate your story.
CAMPING STORY PART 1

Yellowstone National Park is... _____________________
CAMPING STORY PART 2

We arrived at Yellowstone National Park early one (season) morning. Along the way we stopped to see...___________
After a long day touring through the park, we stopped at Grant Village Campground to spend the night at our campsite. Once there...
CAMPING STORY PART 4

We had so much fun... ____________________

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ALL AROUND YELLOWSTONE
ACTIVITY | Ages 4-8

MATERIALS
A single die
A small token for each player to mark their way around the board such as a coin or dried bean

HOW TO PLAY
Get to know Yellowstone National Park by playing this board game by yourself or with friends. If there are multiple players, throw the die to decide who goes first. The person with the highest number goes first. The first player to complete the board wins! You can make this more challenging by going around the board two times.

1. Each player chooses a token.
2. Take turns by throwing the die until a 1, 2, or 3 appears, and move the token accordingly. If you roll 4, 5, or 6 keep rolling; they don’t count.
3. To win, a player must have the exact number on the die to land back at the North Entrance.

To learn more about traveling around the park, follow your moves on this road map.

For more fun, make up your own board game using destinations and sites in the park!
OLD FAITHFUL

FUN FACT
This geyser erupts around 17 times a day. Eruptions usually last between 1.5 and 5 minutes and happen every 60 or 90 minutes!
KAHOOT!
ACTIVITY  |  Ages 9+

MATERIALS
Device with an internet connection
Shared screen that all players can see

TO DO
Kahoots are best played in a group setting. The game host will need a big screen. Questions are displayed for all players to see on a shared screen such as a smart TV or laptop. You can also use screen-sharing tools like Zoom, Skype, or Google Hangouts to include players in other locations.

1. Click here to access the game. Once you’ve logged in or registered for an account, click Play.

2. Launch the game so players can join. Change the Game Options if you like, then click Classic to play with one device per person or Team Mode to play with one device per team.

3. A unique Game PIN will be displayed at the top of the screen. Players use their own devices to join the game via kahoot.it or the Kahoot! app by entering the PIN and their nickname.

4. Play Kahoot! Once all players are in the game lobby, click Start. Players answer the questions they see on the shared screen with their devices. Each answer option on the shared screen is inside a box with a specific color and shape that matches the boxes displayed on the players’ screens. Kahoots test players’ accuracy and speed. The host can use the spacebar or mouse to go to the next question.
MATERIALS
Device with internet connection

WATCH AND READ
Yellowstone has seismic activity every day and has up to 2,500 earthquakes per year. Learn about the park’s monitoring here at the United States Geological Survey.

TO DO

1. Choose a duration of time, such as a week, month, or even a summer, and monitor Yellowstone’s earthquake frequency over time.

2. Using the data table on the following page, enter the dates you will be monitoring.

3. Retrieve your data at this site using the Earthquake archive.

4. At the end of your research, give a report to a friend or someone in your family explaining any patterns or observations you have.

EXPLORE MORE

- National Geographic Explorer Profile: Navakanesh M Batmanathan
- National Geographic Earthquake Collection
- Science Max – EARTHQUAKES – Home Experiments
# EARTHQUAKE DATA COLLECTION

<table>
<thead>
<tr>
<th>DATE</th>
<th>BIGGEST EARTHQUAKE MAGNITUDE</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/6/21</td>
<td>0.6</td>
<td>West Yellowstone, Montana</td>
</tr>
</tbody>
</table>
MATERIALS
Device with internet connection (optional)

READ AND LAUGH
After nearly going extinct, gray wolves were reintroduced to Yellowstone National Park in 1995, and scientists began to study how wolves relate to one another and to their environment.

Did you know wolves can be funny and like to play? Have some fun guessing the answers to puns about wolves and stumping your friends and family.

› What did the Big Bad Wolf do after his workout?
› How do wolves eat their food?
› What do you call a wolf with a fever?
› What do you call a cold wolf?
› What did the Uber driver say to the wolf?
› Why couldn’t the wolf run in the marathon?
› What do you call a wolf that knows it’s a wolf?
› What are the wolf’s favorite times of the year?
› What is the name for the entrance to a wolf’s den?
› What do you call a wolf that works as a lumberjack?

Answers on PG 18
Now that you get the idea, make up some of your own!

EXPLORE MORE
National Geographic video, Wolves of Yellowstone

25 Wolf Puns That Are Howlingly Funny
TRUE OR FALSE?
ACTIVITY  I  Ages 9+

HOW TO PLAY

1. Each player takes turns choosing a square and answers true or false.

2. Write down the answers and check after all the squares have been used or have a third player check the answers.

3. If a player answers correctly, the player receives the points designated in the square.

4. The player who answers the most correctly and earns the most points after all the squares have been played wins. There are 150 possible points.

Answers on PG 17

Note: YNP refers to Yellowstone National Park
### TRUE OR FALSE?

**ACTIVITY | Ages 9+**

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<table>
<thead>
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</thead>
<tbody>
<tr>
<td><strong>1</strong></td>
<td><strong>2</strong></td>
<td><strong>3</strong></td>
<td><strong>4</strong></td>
<td><strong>5</strong></td>
</tr>
<tr>
<td><strong>5 PTS</strong></td>
<td><strong>10 PTS</strong></td>
<td><strong>5 PTS</strong></td>
<td><strong>5 PTS</strong></td>
<td><strong>10 PTS</strong></td>
</tr>
<tr>
<td>YNP is the most visited park in the world.</td>
<td>Yellowstone’s human history dates back only 1,000 years.</td>
<td>YNP includes approximately 1,000 miles (1,609 kilometers) of backcountry hiking trails.</td>
<td>YNP hosts 342 species of mammals, including seven species of native ungulates and two species of bear.</td>
<td>YNP was established in 1965.</td>
</tr>
<tr>
<td><strong>6</strong></td>
<td><strong>7</strong></td>
<td><strong>8</strong></td>
<td><strong>9</strong></td>
<td><strong>10</strong></td>
</tr>
<tr>
<td><strong>10 PTS</strong></td>
<td><strong>5 PTS</strong></td>
<td><strong>5 PTS</strong></td>
<td><strong>5 PTS</strong></td>
<td>Grand Canyon is in YNP.</td>
</tr>
<tr>
<td>YNP has 26 associated Native American tribes.</td>
<td>No part of YNP receives more than five inches of precipitation per year.</td>
<td>There are over 500 geysers in YNP.</td>
<td>A large active volcano is underneath Yellowstone.</td>
<td></td>
</tr>
<tr>
<td><strong>11</strong></td>
<td><strong>12</strong></td>
<td><strong>13</strong></td>
<td><strong>14</strong></td>
<td><strong>15</strong></td>
</tr>
<tr>
<td><strong>10 PTS</strong></td>
<td><strong>10 PTS</strong></td>
<td><strong>10 PTS</strong></td>
<td><strong>10 PTS</strong></td>
<td>The Nez Perce (Nee-Me-Poo) National Historic Trail crosses YNP.</td>
</tr>
<tr>
<td>On average, between 100 and 300 earthquakes occur annually in YNP.</td>
<td>YNP is home to two threatened species: Canada lynx and grizzly bears.</td>
<td>You may approach within 10 yards of bears and wolves and five yards of other large animals.</td>
<td>Bison have lived in YNP dating back to prehistoric times.</td>
<td></td>
</tr>
<tr>
<td><strong>16</strong></td>
<td><strong>17</strong></td>
<td><strong>18</strong></td>
<td><strong>19</strong></td>
<td><strong>20</strong></td>
</tr>
<tr>
<td><strong>5 PTS</strong></td>
<td><strong>5 PTS</strong></td>
<td><strong>10 PTS</strong></td>
<td><strong>5 PTS</strong></td>
<td>Yellowstone is entirely within one state, Montana.</td>
</tr>
<tr>
<td>Old Faithful is the tallest geyser in YNP.</td>
<td>Non-native plants threaten the YNP ecosystem.</td>
<td>YNP is the world’s largest national park.</td>
<td>Old Faithful erupts only five times a day.</td>
<td></td>
</tr>
</tbody>
</table>
What did the Big Bad Wolf do after his workout?
Huff and puff

How do wolves eat their food?
They wolf it down

What do you call a wolf with a fever?
A hot dog

What do you call a cold wolf?
A chili dog

What did the Uber driver say to the wolf?
Where, wolf?

Why couldn’t the wolf run in the marathon?
Because he isn’t a part of the human race

What do you call a wolf that knows it’s a wolf?
Aware wolf

What are the wolf’s favorite times of the year?
The howl-o-days

What is the name for the entrance to a wolf’s den?
The howl-way

What do you call a wolf that works as a lumberjack?
A timber wolf

PG 14

PG 17

Answer for 1 here.
Answers for 2, 9, 10, 13, 14, 19 here.
Answers for 3, 4, 5, 6, 7, 8, 11, 12, 15, 16, 17, 18, 20 here.
Answer for 18 here.

1. False | YNP was the second most visited national park in the U.S. in 2020.
2. False | Yellowstone’s human history dates back 11,000 years.
3. True
4. False | There are 67 species of mammals in YNP.
5. False | YNP was established in 1852.
6. True
7. False | Annual precipitation at YNP ranges from 10 to 80 inches.
8. True
9. True
10. True | YNP has its own Grand Canyon.
11. False | Between 1,000 and 3,000 earthquakes occur annually.
12. True
13. False | Park rules state you must stay 100 yards from bears and wolves and 25 yards from other large animals.
14. True
15. True
16. False | Steamboat Springs is the tallest geyser in YNP.
17. True
18. False | The world’s largest national park is in Greenland.
19. False | Old Faithful erupts around 17 times a day, more often than any of the park’s other large geysers.
20. False | Yellowstone is mostly in Wyoming, with small portions in Montana and Idaho.
FULL LINKS

PG 3
Geysers and Springs of Yellowstone
https://www.youtube.com/watch?v=A3x65YP7rkQ

Geyser
https://www.nationalgeographic.org/encyclopedia/geyser/

Hot Springs
https://www.nps.gov/yell/learn/nature/hydrothermal-features.htm#geysers

How to Make a Geyser
https://www.natgeokids.com/uk/home-is-good/geyser-science-experiment/

PG 4
National Park Service
https://www.nps.gov/yell/planyourvisit/campgrounds.htm

PG 9
Yellowstone road map

PG 13
USGS seismic monitoring

National Geographic Explorer Profile: Navakanesh M Batmanathan
https://www.nationalgeographic.org/article/explorer-profile-navakanesh-m-batmanathan-earthquake-geologist/

National Geographic Earthquake Collection
https://www.nationalgeographic.org/topics/resource-library-earthquake/?q=&page=1&per_page=25

Science Max – EARTHQUAKES – Home Experiments
https://www.youtube.com/watch?v=TLsqVjtrovo

PG 15
Wolves of Yellowstone
https://www.nationalgeographic.org/media/wolves-yellowstone/

25 Wolf Puns That Are Howlingly Funny
https://www.rd.com/article/wolf-puns-that-are-howlingly-funny/