



Bryce Canyon

Junior Ranger Field Book

THIS BOOK BELONGS TO:

1 Complete the Activities Inside!

Your age is the number of activities you'll do.

Example: If you are 9 years old, do 9 activities.
25 and older, complete entire book.



Green activities are good for young rangers!

2 Attend a Ranger Program, Watch the Park Movie, or Visit the Museum and write something you learned:

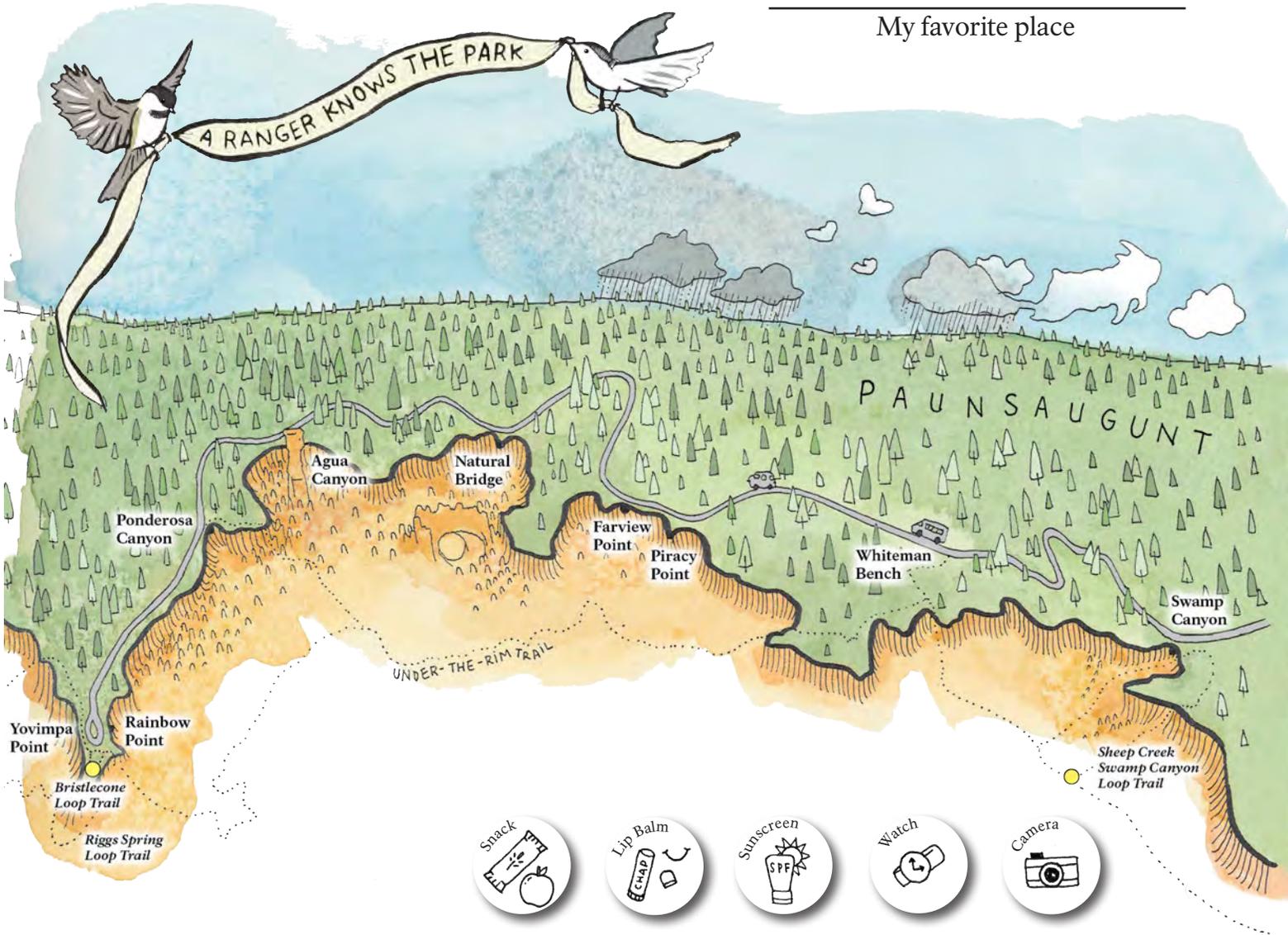


Ringtail
Bassariscus astutus
(Related to raccoons)

Planning Your Day at Bryce Canyon

Using Your Map

A Jr. Ranger knows how to read a map and knows where they've been in the park. Use the park map below to circle every place you go during your visit. Below, write your favorite place that you visited.



My favorite place _____

Get Ready Bingo

A Jr. Ranger is prepared!
Cross off all the items that you have with you today.
Can you get five in a row?





Your Junior Ranger Field Book is all you need for this activity.



Visit the Visitor Center or talk to a ranger to help with this activity.



Get outside and explore the park to complete this activity.



What's Happening Today?

Knowing what's happening outside is an important part of planning a day at Bryce Canyon!

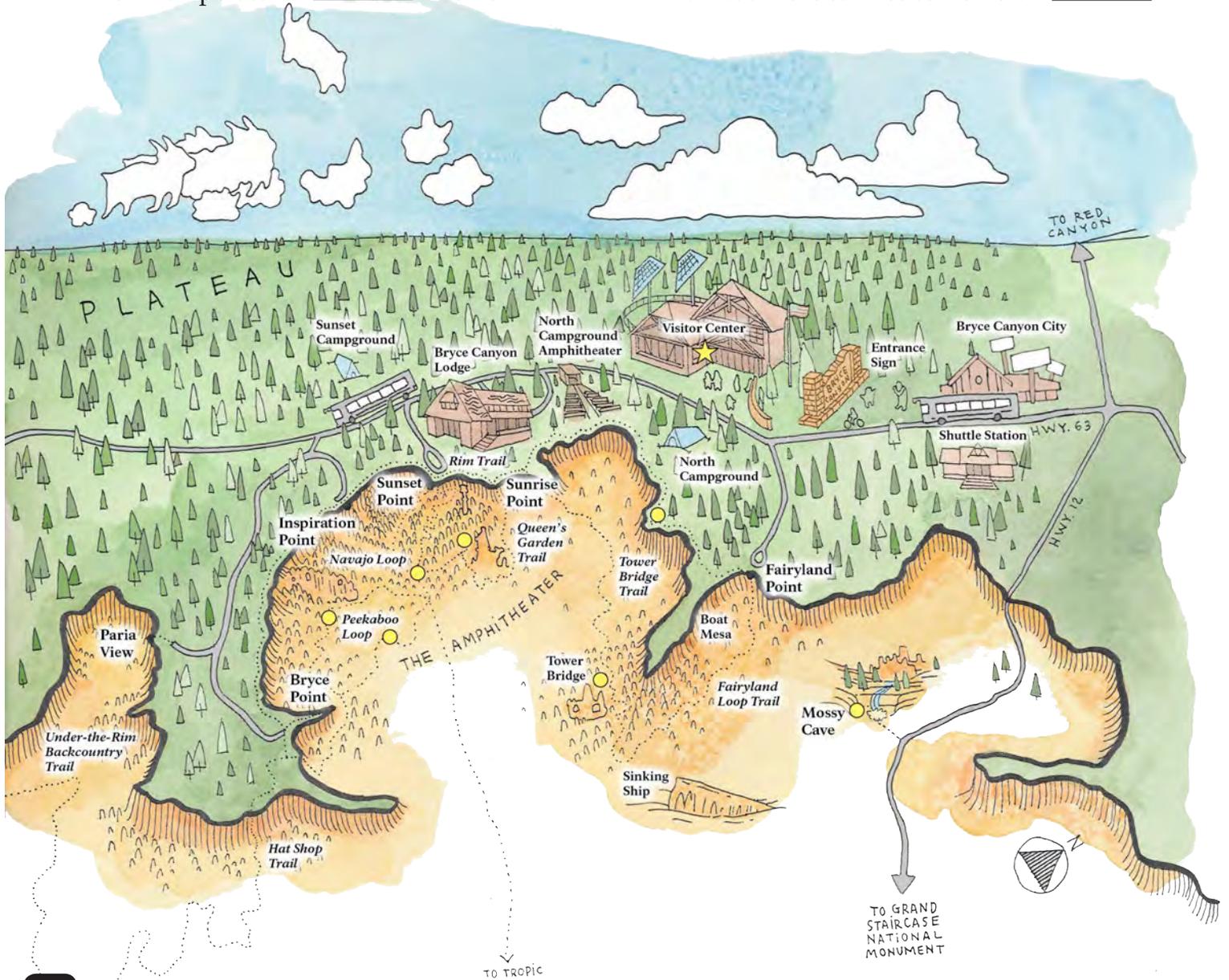
What is the weather like today? _____

High Temperature _____ F or C

What time is sunset today? _____ P.M.

Low Temperature _____ F or C

What time is sunrise tomorrow? _____ A.M.



I Hiked the Hoodoos! Complete this activity and receive a special reward!

Hike a minimum of 3 miles / 4.8 km and find the benchmarks. Take a photo or a pencil rubbing (back page) of the benchmarks you find. If you are completing the entire book, this activity is optional.

- Mossy Cave (0.8 mi / 1.3 km)
- Tower Bridge (3.0 mi / 4.8 km)
- Bristlecone Loop (1.0 mi / 1.6 km)
- Rim Trail (2.5 mi / 4.0 km)
- Navajo Loop (1.3 mi / 2.2 km)
- Sheep Creek (4.0 mi / 6.4 km)
- Queen's Garden (1.8 mi / 2.9 km)
- Peekaboo Loop (4.9 mi / 7.8 km) from Sunset Point
- Peekaboo Loop (5.5 mi / 8.8 km) from Bryce Point

Being in Bryce Canyon

I Spy!

Warm up your observation skills by finding these five items in your book. Write the page number where you find them.



Page #



Sensing Your Park

How does it feel to be here?

Go anywhere in the park and record your experience below.

Location: _____

I hear: _____

I see: _____

I smell: _____

I imagine: _____

I wonder: _____

I wish: _____





Prairie Dog Word Tunnels

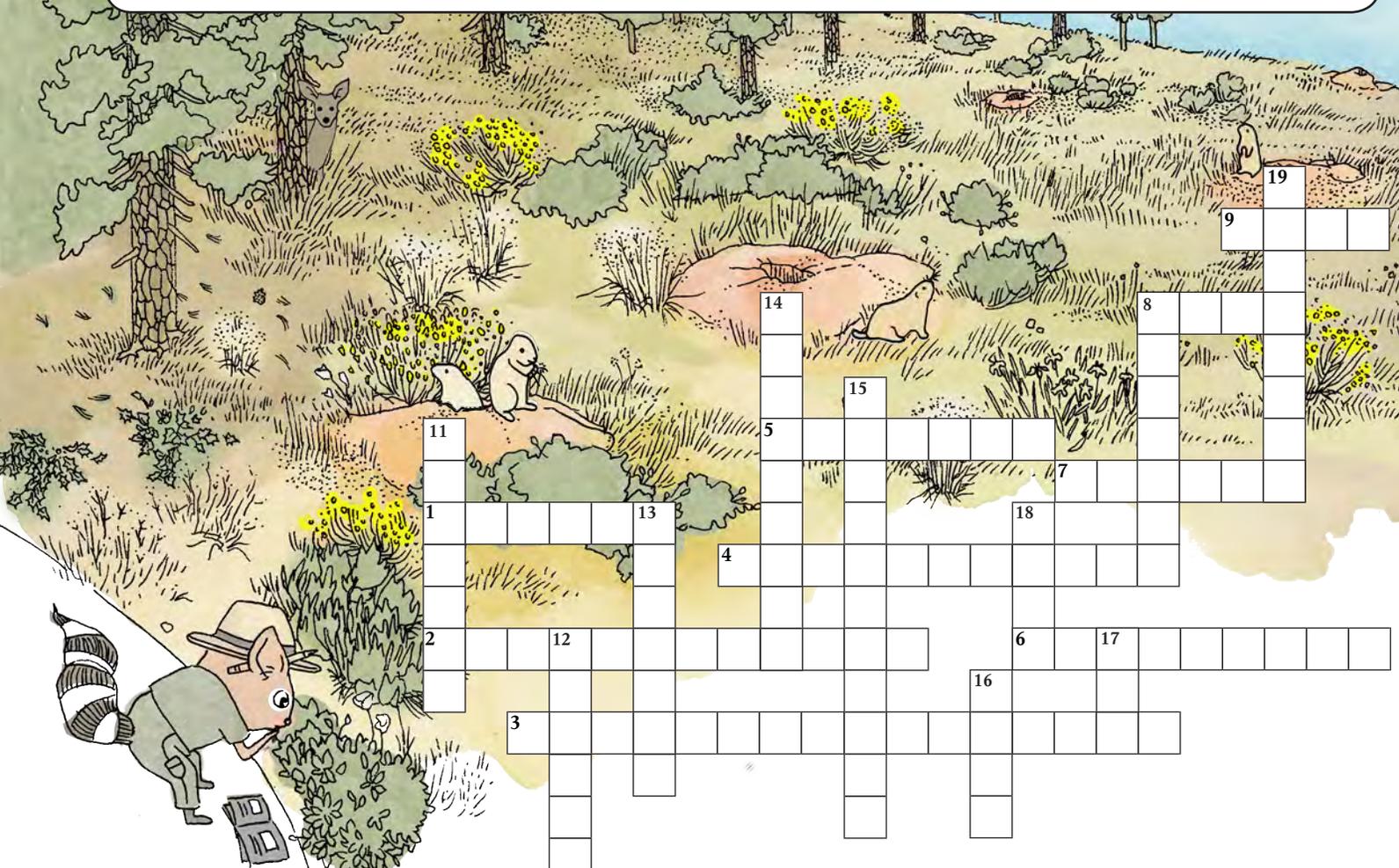
Prairie dogs have a very complex language that they use to protect themselves and their colony. Use your own word skills and solve the clues to connect all three burrow entrances!

Across Clues

- This person helps protect the park and keep prairie dogs safe
- These venomous reptiles with noisy names are predators of prairie dogs; watch your step in the summertime!
- This room is where prairie dogs can hear the world above
- This sleepy time usually lasts from November to March
- This scientific field of study includes prairie dogs and all other animals in the park (except humans)
- This is the fastest land animal in North America, often found grazing near prairie dog habitat
- The sego lily and evening primrose are examples of this
- Male and female prairie dogs do this every spring to make more of 9-Across
- What we call young prairie dogs

Down Clues

- This is the name of the park's summer rainy season
- This room is where you'll find the youngest prairie dogs
- This room helps keep the rest of the burrow clean
- This group of mammals, which includes squirrels, mice, and prairie dogs has front teeth that never stop growing
- This plant has rough leaves and red bark; in Spanish its name means "tiny apple"
- This large bird with an expensive sounding name is a common predator of prairie dogs
- Like real dogs, what we call the sound prairie dogs make
- Number of adult males in a prairie dog clan
- Cars that are prepared to do this can save prairie dog lives
- This hoofed animal with long ears grazes near prairie dogs

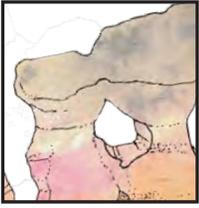


The Utah Prairie Dog is an endangered species. They were once expected to go extinct by the year 2000, but are now thriving thanks to federal protections in places like Bryce Canyon.

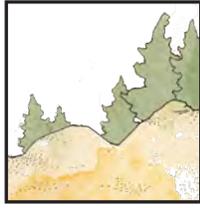
Geology of Bryce Canyon

Lifecycle of a Hoodoo

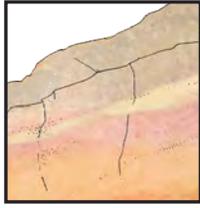
Place the hoodoo stages in the correct order (1 to 4) and answer the questions on the next page!
Tip: Start by finding the four stages in the background illustration.



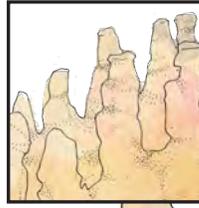
Window



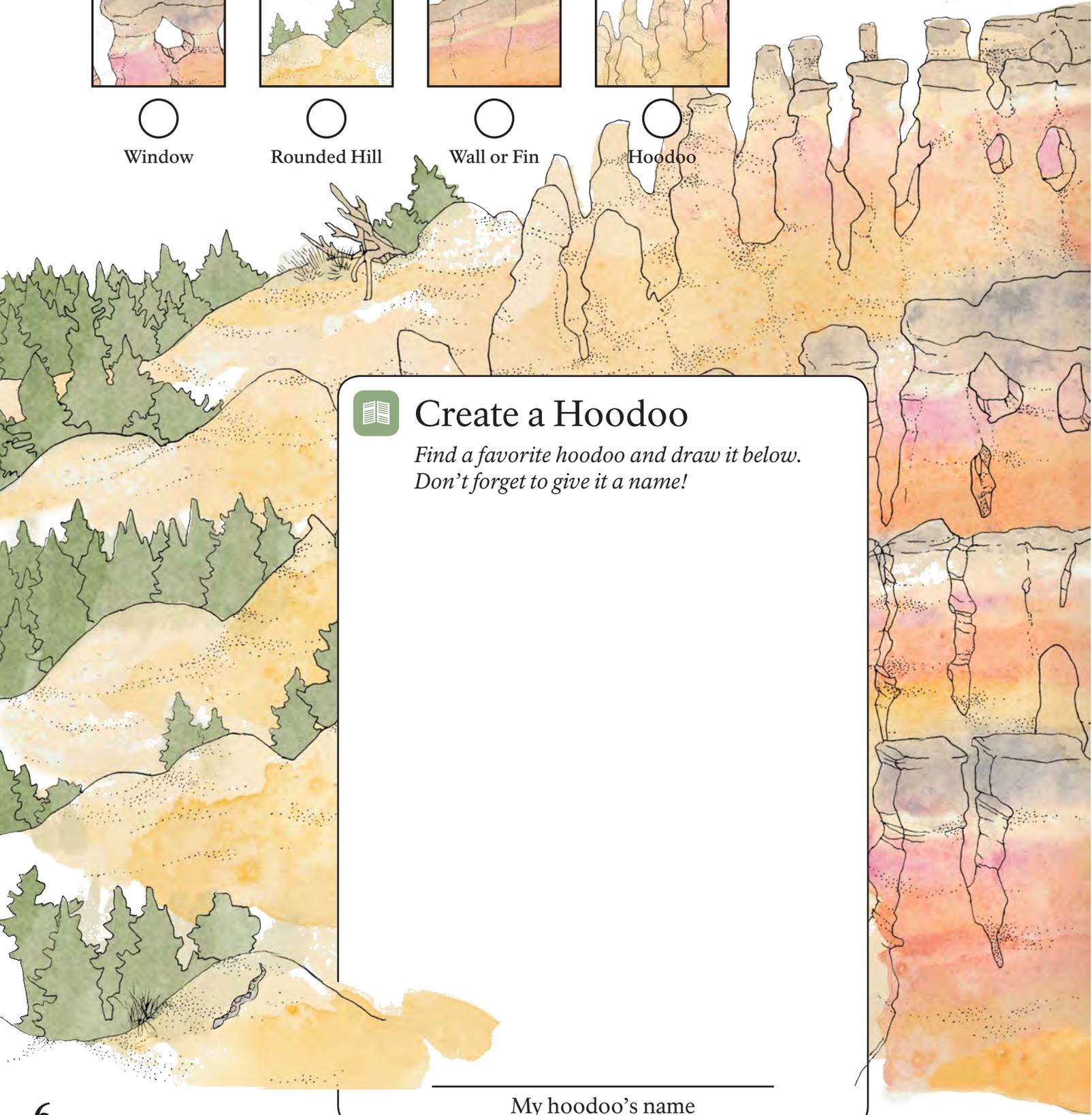
Rounded Hill



Wall or Fin



Hoodoo



Create a Hoodoo

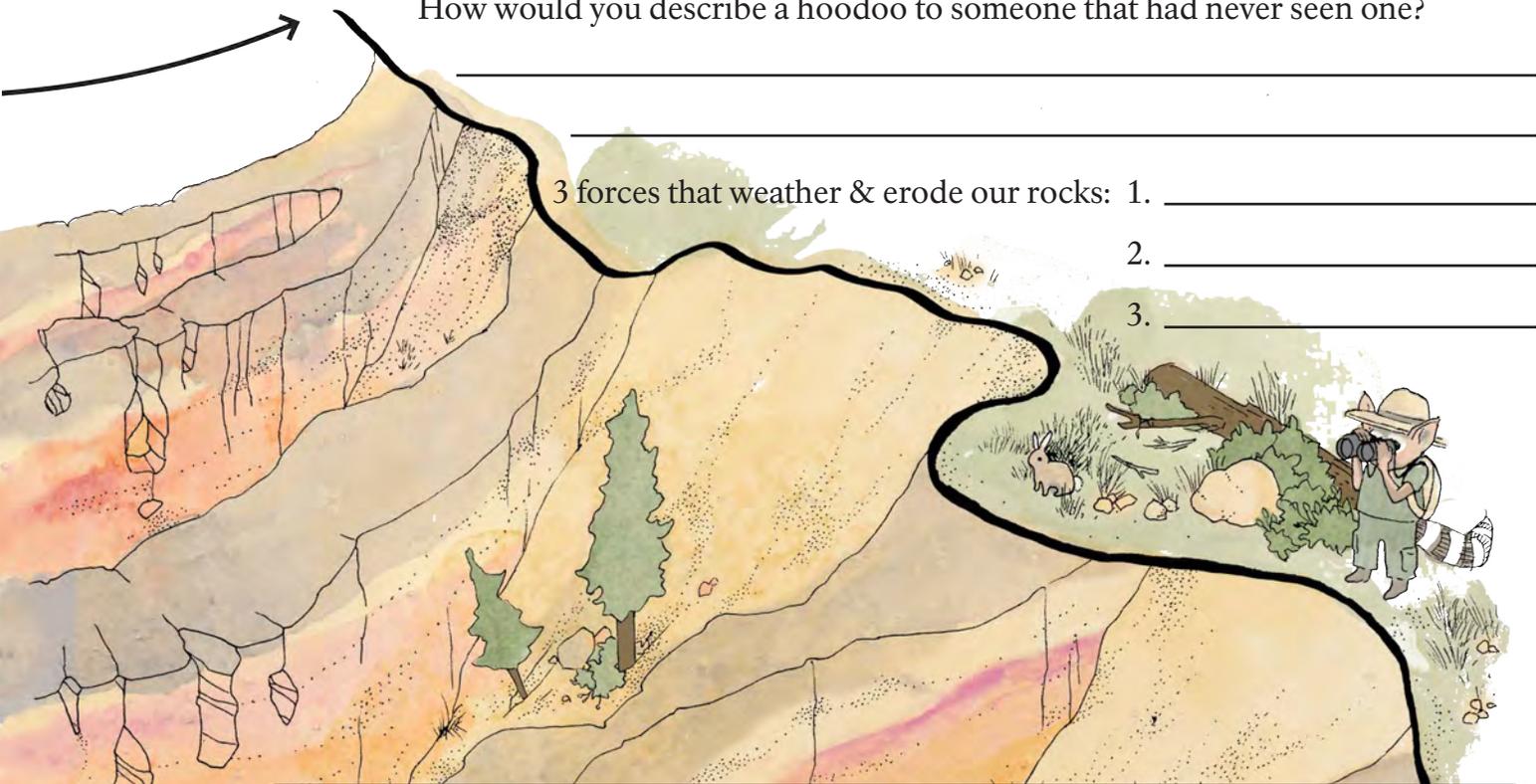
Find a favorite hoodoo and draw it below.
Don't forget to give it a name!

Blank space for drawing a hoodoo and writing its name.

My hoodoo's name _____



How would you describe a hoodoo to someone that had never seen one?



3 forces that weather & erode our rocks: 1. _____
2. _____
3. _____



Know Your Layers

Draw lines to match the rock layer to its description and fill in all of the missing words!

The hoodoos of Bryce Canyon are part of the _____ formation, which is around 50 million years old. This formation is also called the Pink Cliffs, which is the very _____ step of the “Grand Staircase”. Bryce Canyon contains the most hoodoos on Earth, but it’s not really a canyon because it has no _____.

Dolomitic Limestone

This layer is _____ than others, so it erodes away more quickly. Look for the skinniest parts of a hoodoo.

White Limestone

Magnesium makes this layer _____ than others. It forms a “hat” layer that erodes more slowly than others.

Red Limestone

These layers are formed of nearly pure calcium carbonate that settled at the bottom of a fresh-water _____.

Mudstone

These layers have calcium carbonate and other sediments rich in the element _____, which gives a red color.

Plants of Bryce Canyon

Plant Safari

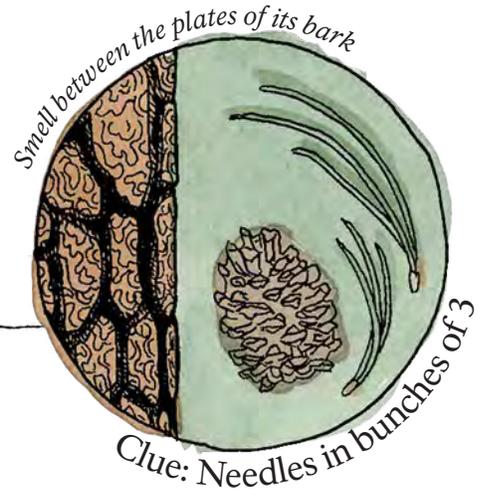
Find at least two of these seven plants in the park. Be sure to fill out the entire tag!



Indian Rice Grass

I found it!

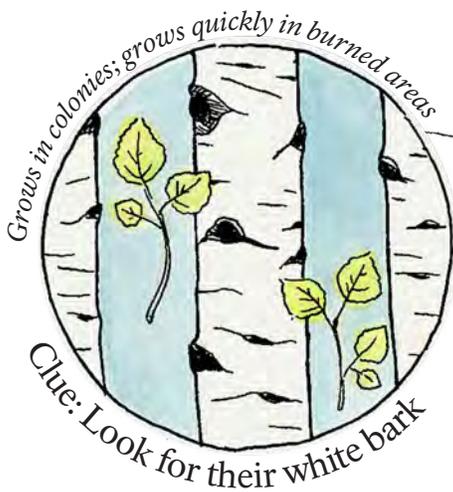
Location:
Shared Use Path



1. Ponderosa Pine

I found it!

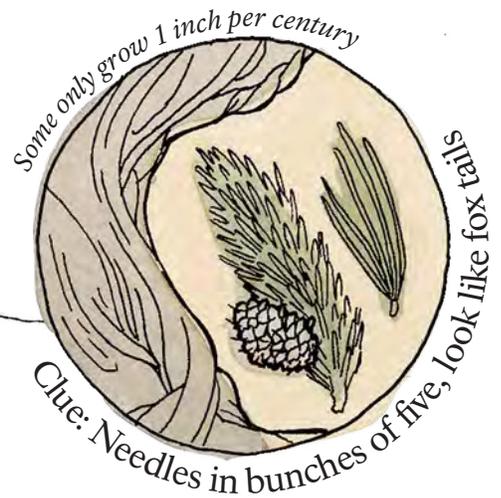
Location:



2. Quaking Aspen

I found it!

Location:



3. Bristlecone Pine

I found it!

Location:



Plant Facts *Choose from the plants above to complete these plant descriptions!*

The oldest _____ in the park was found to be around 1,600 years old.

Small red berries give _____ its name, which means "tiny apple" in Spanish.

_____ grows in groups, and may have arrived here over 10,000 years ago.

Along with the pinyon pine, _____ defines the park's lowest elevation zone zone.

The spaces between the bark of _____ smell like vanilla or butterscotch.

Along with the spruce tree, _____ defines the park's highest elevation zone zone.

Edible seeds have made _____ an important grain for native peoples.

Leaves of _____ change from summer green to winter purple.

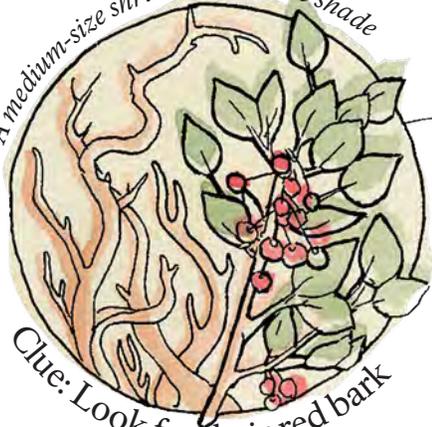


Get outside and explore the park to complete this activity.



The Visitor Center Museum might help you complete this activity.

A medium-size shrub, doesn't like shade



Clue: Look for their red bark

4. Manzanita

I found it!

Location:

Medium tree, sometimes called a cedar (it's not)



Clue: Look for blue berry-like cones

5. Juniper

I found it!

Location:

Grows in crowded, shady forests



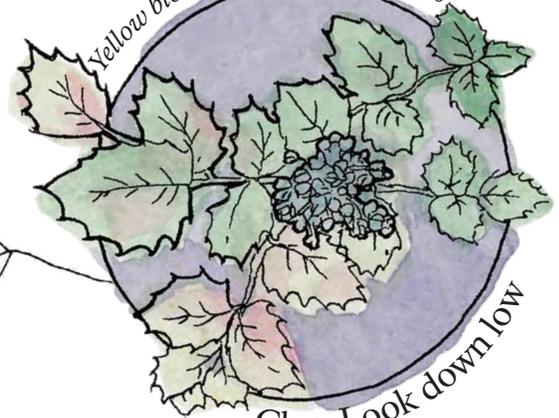
Clue: Needles are soft (not sharp), and curl upward

6. White Fir

I found it!

Location:

Yellow blooms become blue berries



Clue: Look down low

7. Oregon Grape

I found it!

Location:

Name:

Where I found it:



Mystery Plant

Draw a plant you find, and fill out the tag.

If you can't find its name later, make one up!

Animals of Bryce Canyon

Keep your eyes open!

Circle the names of animals you see.
Never feed a wild animal, and always keep your distance!

Rufous Hummingbird
Migrates from Mexico



Ringtail
Five toes on both feet



Common Raven
Does not digest fur or bones



White-breasted Nuthatch
Descends trees head-first



Coyote
Claw marks in tracks

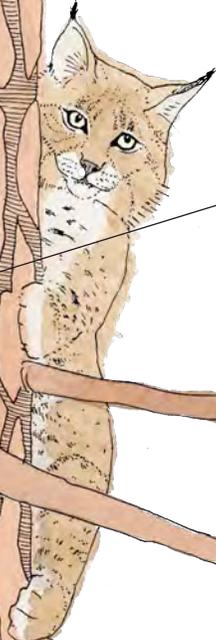


Golden-mantled Ground Squirrel
White eye-ring, shreds pine cones



Utah Prairie Dog
Lives in underground colonies

Bobcat
Leaves no claw marks in track



Pygmy Nuthatch
Our smallest nuthatch



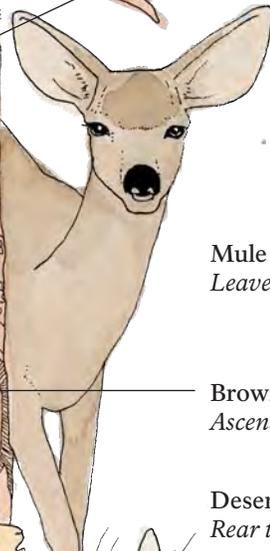
Steller's Jay
May mimic screech of hawks



Downy Woodpecker
About the size of a robin



Mule Deer
Leaves pellet scat



Brown Creeper
Ascends tree head-first

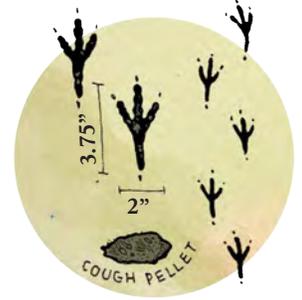


Desert Cottontail
Rear track is larger



Who left it?

Signs of animals are everywhere.
Write or match the animals (at left) that left these signs.



Who left it?



Who left it?



Who left it?



Who left it?

Humans of Bryce Canyon



What Parks Mean To Us (Interview)

National parks exist all around the world, and they mean different things to different people. Ask someone visiting the park today these questions, and write their answers below.

Which was the first national park you ever visited? When did you visit?

What do you remember about that experience? If Bryce Canyon is your first, why did you come?

What do national parks mean to you?

Of all the national parks you've visited, which was the most special to you? Why?



Naming the World Around You

Many names in and around the park come from the language of the Southern Paiute people, who still live in this area today. Their language describes places by things that happened there, who lives there, or what it looks like. Think about what makes this place unique as you complete this activity.

PAUNSAUGUNT Plateau: Place of the Beaver

PARIA: Muddy Water

YOVIMPA: Ponderosa Pine Tree Water

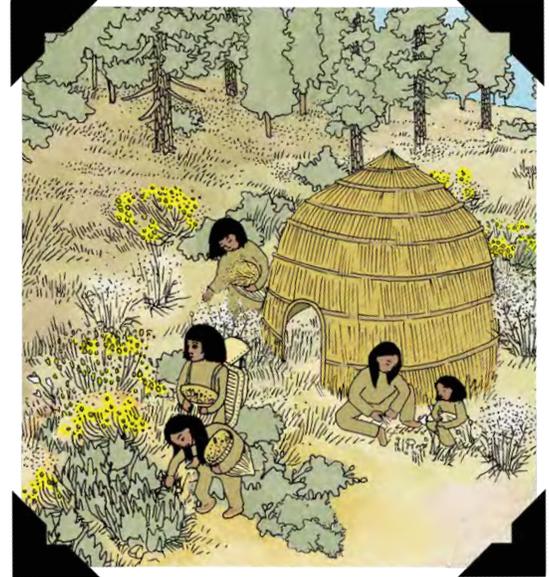
PANGUITCH: Fish Water

UNKA TUMPI WUN-NUX TUNGWATSINI

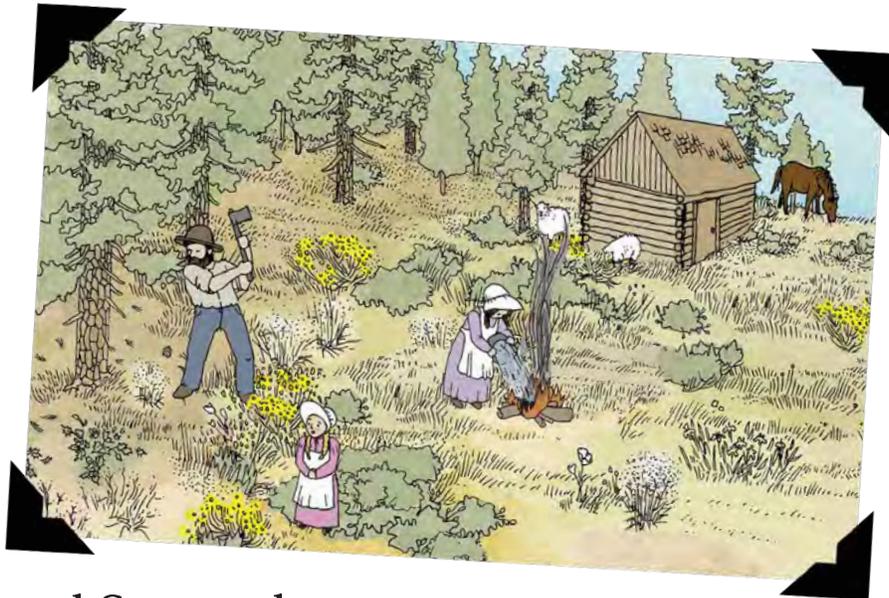
XOOPAKICHU ANAX (BRYCE CANYON):

Red Rock Standing Like a Man in a Hole

What is most special about this place to you?



If it had no name, what would you call this place?



Being a Good Steward

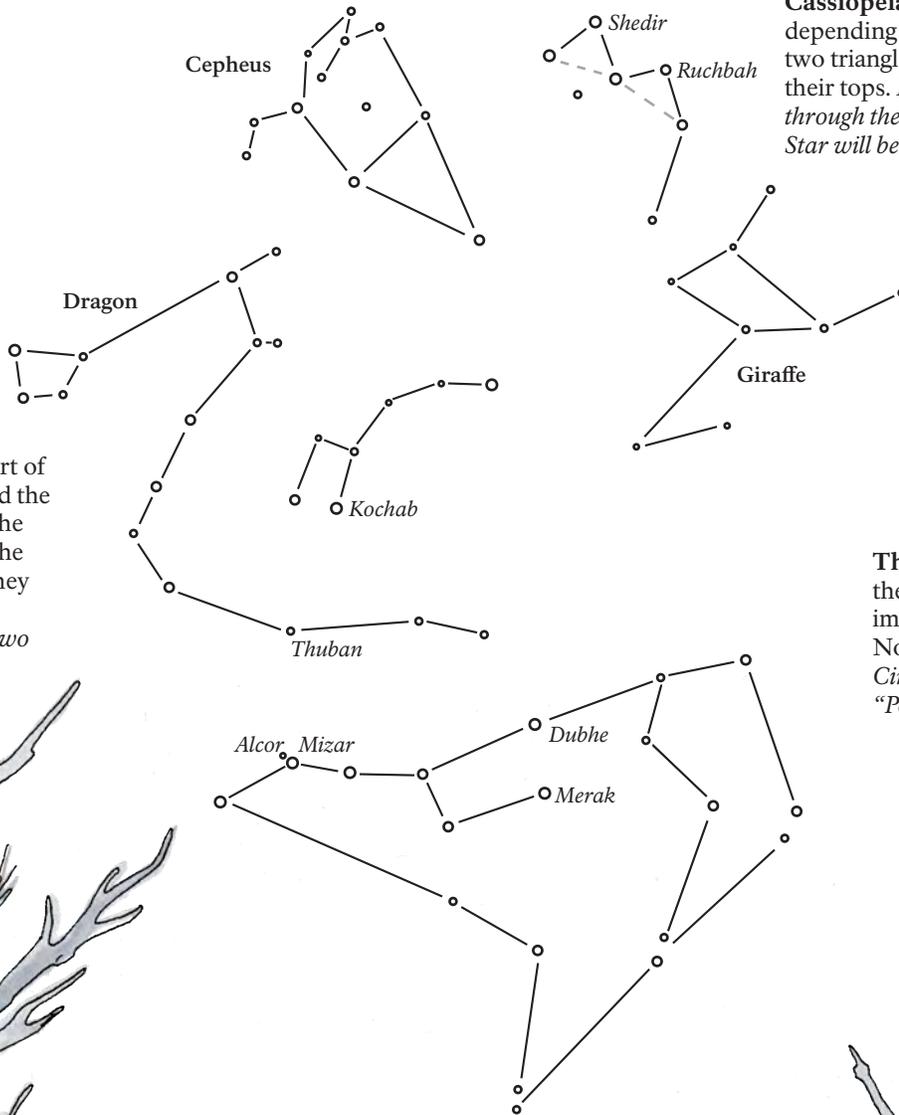
Settlers from The Church of Jesus Christ of Latter Day Saints arrived here in the 1860s. Bryce Canyon's name comes from one of these settlers, named Ebenezer Bryce. This faith teaches the importance of caring for all of the life that exists on this planet. You can help take care of this land too by picking up at least 10 pieces of litter you find during your visit. Cross off a trash can for every piece you find!



Night Skies of Bryce Canyon

The North Star

At this latitude, the stars that circle the North Star (Polaris) are always visible, so you can see them at any time of year. Complete this page to learn three ways you can find the North Star tonight.

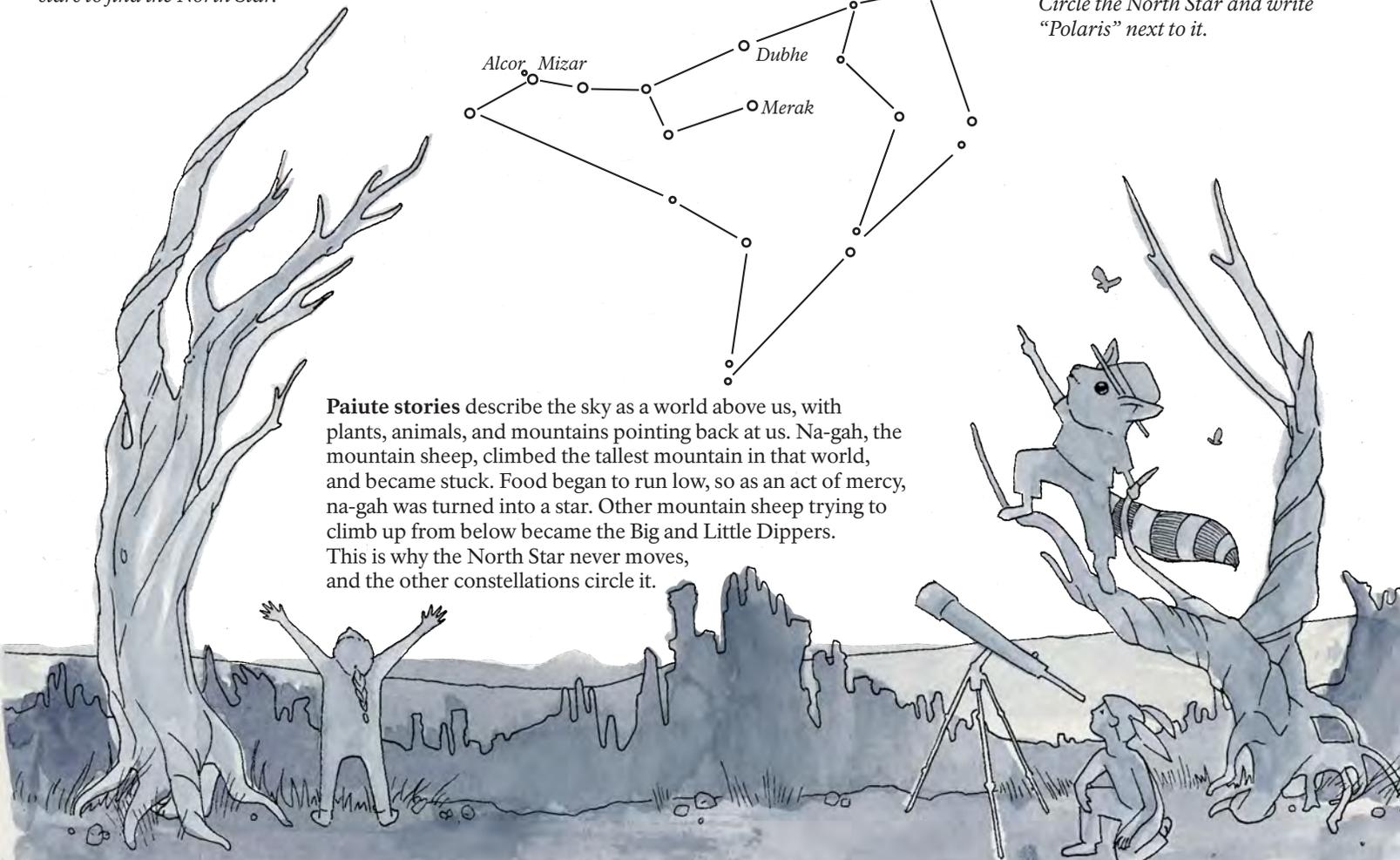


Cassiopeia looks like an M, E, W, or 3 depending on its rotation. Think of it as two triangles, with Shedir and Ruchbah at their tops. Draw two lines, one from each star, through the middle of their triangle. The North Star will be near where these lines meet.

The Big Dipper is one part of a larger constellation called the Great Bear. The stars Dubhe and Merak are known as the "Pointer Stars", because they point to the North Star. Draw a line through these two stars to find the North Star.

The Little Dipper is dimmer than the Big Dipper, but is just as important because it contains the North Star at the end of its handle. Circle the North Star and write "Polaris" next to it.

Paiute stories describe the sky as a world above us, with plants, animals, and mountains pointing back at us. Na-gah, the mountain sheep, climbed the tallest mountain in that world, and became stuck. Food began to run low, so as an act of mercy, na-gah was turned into a star. Other mountain sheep trying to climb up from below became the Big and Little Dippers. This is why the North Star never moves, and the other constellations circle it.



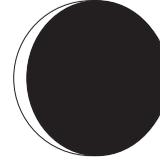
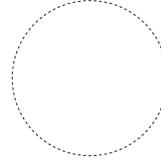
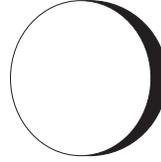
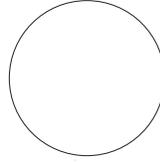
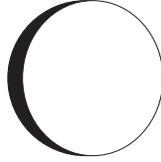
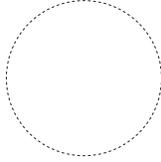
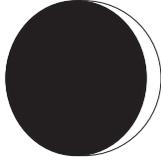
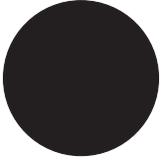


Just a Phase

It takes about 28 days for the moon to orbit Earth and go through all of its phases. Some phases are better for stargazing than others. Shade in the missing phases, and answer the questions below!

Getting "bigger" ("Waxing") Bright area looks like the letter D →

Getting "smaller" ("Waning") Bright area looks like the letter C →



New Moon
Rises at sunrise

Waxing Crescent
Rises a few hours after sunrise

First Quarter
Rises around noon

Waxing Gibbous
Rises mid-afternoon

Full Moon
Rises at sunset

Waning Gibbous
Rises a few hours after sunset

Last Quarter
Rises around midnight

Waning Crescent
Rises a few hours before sunrise

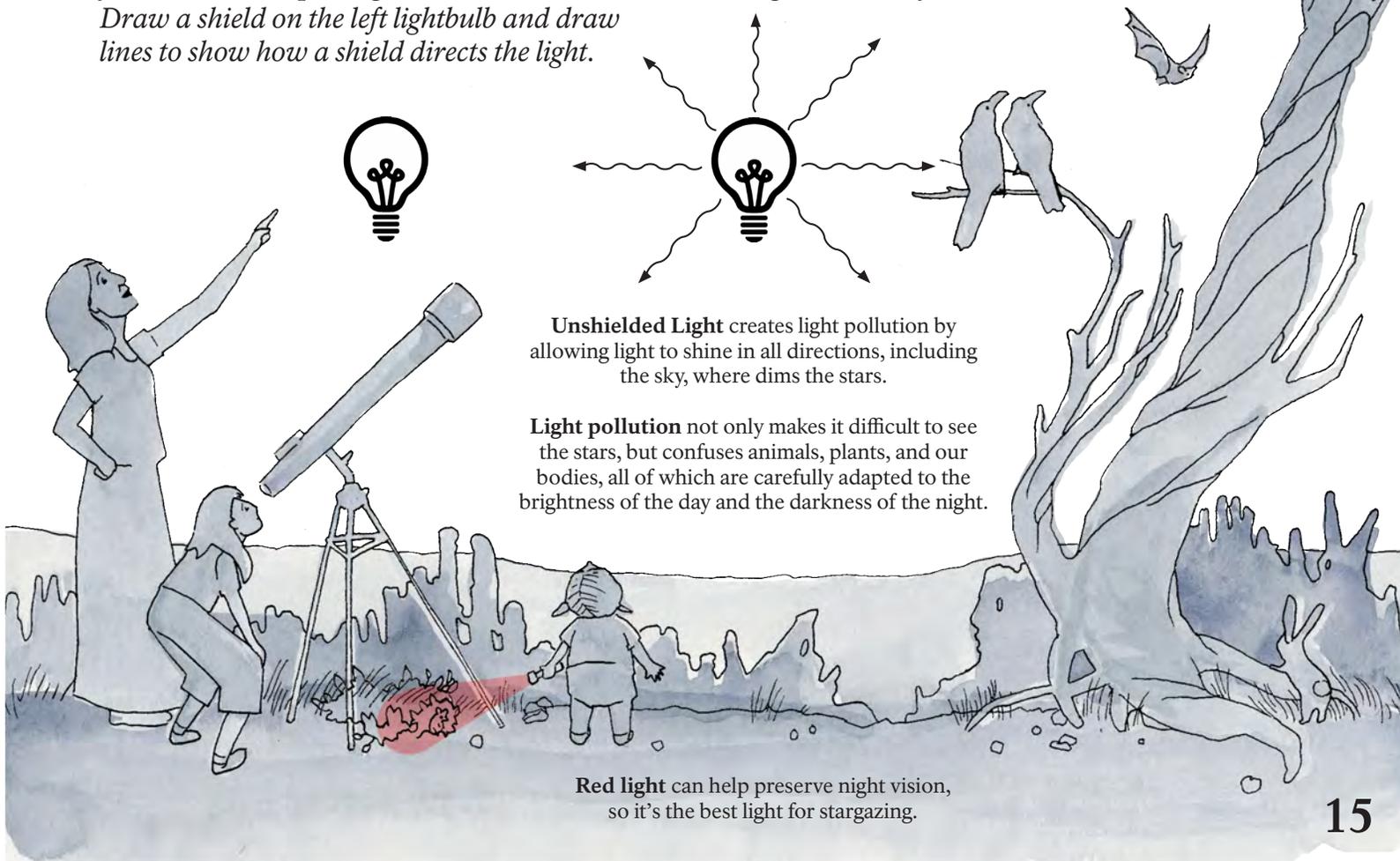
Which phase is the moon in tonight? _____

Will tonight be a good night for stargazing? Why or why not?

Losing the Night

For a few days a month the moon can make it difficult to see the stars, but in most places artificial light now makes it difficult to see stars every night of the year. One of the best things you can do to help bring back the stars is to "shield" the lights around your home.

Draw a shield on the left lightbulb and draw lines to show how a shield directs the light.



Unshielded Light creates light pollution by allowing light to shine in all directions, including the sky, where it dims the stars.

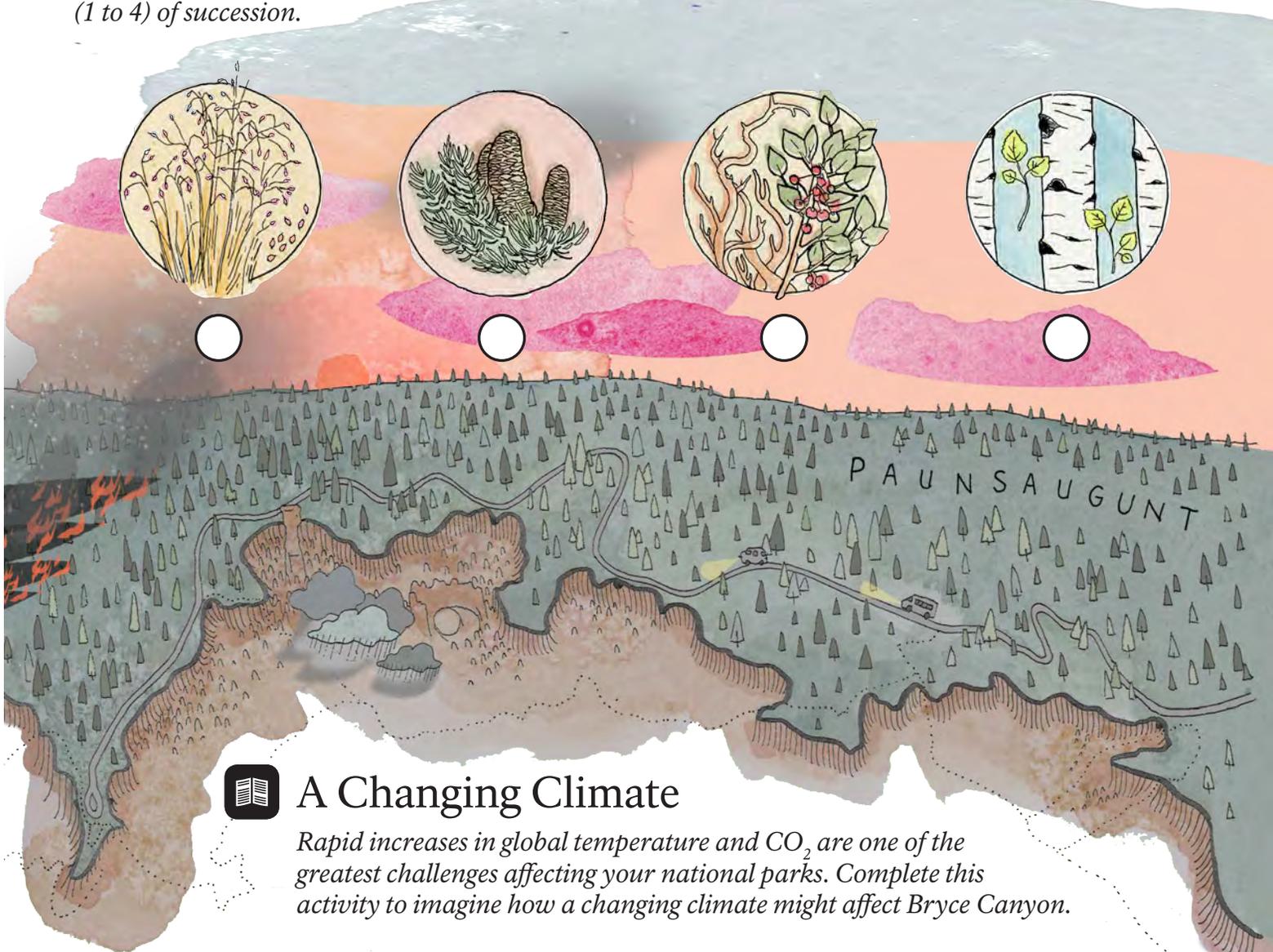
Light pollution not only makes it difficult to see the stars, but confuses animals, plants, and our bodies, all of which are carefully adapted to the brightness of the day and the darkness of the night.

Red light can help preserve night vision, so it's the best light for stargazing.

Protecting the Future of Bryce Canyon

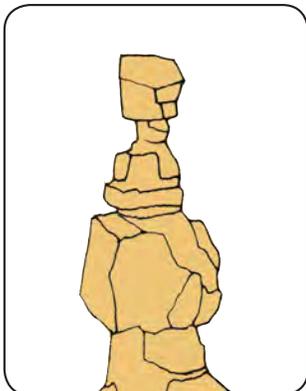
* What Comes After a Fire?

Wildfire is nature's way of keeping house. When no fire occurs, forests become dense and overcrowded, making them less healthy and vulnerable to larger, more destructive wildfires. After a fire, grasses take advantage of lots of sunlight on the forest floor. Then shrubs arrive, providing berries and more for animals to eat. Finally, tall trees return to the area, providing more food and shelter. The order that plants return after fire is called "succession". Use the plant clues on Page 8 and 9 to put these plants in the correct order (1 to 4) of succession.



📖 A Changing Climate

Rapid increases in global temperature and CO₂ are one of the greatest challenges affecting your national parks. Complete this activity to imagine how a changing climate might affect Bryce Canyon.



A Freeze/Thaw cycle is when rain or melted snow freezes at night and then melts during the afternoon. This currently happens about half the nights of the year here. Frequent Freeze/Thaw Cycles shape rocks bit by bit, and create tall, narrow hoodoos like Thor's Hammer.

Higher global temperatures will mean fewer Freeze/Thaw cycles, and possibly more rain here than snow and ice. Hoodoos formed in this environment could look very different than what you see today. Write or draw how more rain-shaped hoodoos might look.



Deciding the Future of Your Parks

Climate Change? Overcrowding? Cell Phones? Lack of interest? Try and think of one challenge the national parks will face in your lifetime. Below, write something you think that you and the National Park Service can do to better face that challenge.



A challenge facing the national parks is... _____

Something the National Park Service can do to help is to... _____

Something that I can do to help is to... _____



The Maze of Decisions

Complete the maze by making the best decisions at each situation. For Situation #11, draw or write a good decision you made while visiting a national park, and then find the correct path to the end.

The Way of The JUNIOR RANGER

The way of the Junior Ranger is one marked by many important decisions. Choose wisely- your choices have impacts beyond yourself.

← pick it up

leave it →

← by private helicopter

by gas-powered car

by shuttlebus

GOT TO THE TRAILHEAD

feed him your extra granola bar

respect his space

OH, HI!

5. A GOLDEN-MANTLED GROUND SQUIRREL!

take a drink → from your reusable water bottle

PFEW! I'M THIRSTY!

2.

take a drink from your single use plastic water bottle

WHOOPS! you forgot to bring water. Ask a friend.

← go check it out

4. WHAT'S THAT IN THE WOODS?!

stay on the trail

CONT. TO SIX



6. I LOVE MY THIS TRAIL!!!
 ← call a friend to tell them everything as you hike!
 turn on your boom-box & howl like a wolf!
 → share your enthusiasm quietly within your group

7. SOMEONE IS CARVING INTO THE ASPEN!
 ← add your name
 build a nearby cairn to alert the next hiker
 ask them to stop OR tell a Ranger

8. WOW! GREAT FINDS!
 keep 'em →
 leave 'em →

9. BRRR!
 build a fire on the Rim Trail
 put on a layer
 build a fire on the Queen's Garden Trail

10. PEOPLE ARE USING TELESCOPES AHEAD!
 Sneak up on them in the dark and make scary animal sounds
 wave your flashlight at them to say hello!
 turn your headlamp to the red light setting

11.

12. YOU MADE IT!
 Write the Park to tell us about your experience!
 Bryce Canyon National Park
 PO Box 640201
 Bryce, UT 84764

Hint: Make the "right" choice!

Use this space to make pencil rubbings of benchmarks!



JR. RANGER PLEDGE

**As a Bryce Canyon Junior Ranger...
I promise to do all I can
to help protect
my national parks.
I will collect litter
when I'm out exploring
and show respect for nature
by not disturbing anything wild.**

JR. RANGER'S NAME

PARK RANGER'S NAME

PARK STAMP