



YUKON-CHARLEY RIVERS NATIONAL PRESERVE

JUNIOR RANGER

— ACTIVITY GUIDE —



Is a River Like a Road?

Yukon-Charley Rivers National Preserve protects the plants, animals, history, water and landforms along the Yukon River and the Charley River. These rivers have been pathways for transportation and a source of survival for people and wildlife. The descriptions below are ways to travel on or near the rivers:
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1. Alaska Native people have traveled on the rivers by boat in the summer and by sled or snow shoe in winter for thousands of years and still do today.

2. Peregrine Falcons nest in the bluffs above the Yukon River and fly above the waterway while they hunt for food.

3. Moose and other wildlife like to feed in flood plain areas, near the edge of the rivers, where there are plants to eat in summer and in winter.

How old are you? Do that many activities to earn a Jr. Ranger badge!

How would you visit the rivers?

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What's Along the Rivers?

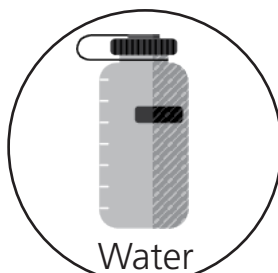
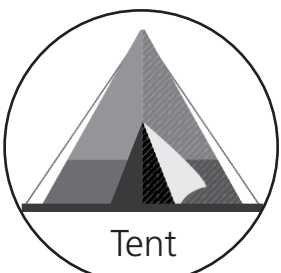
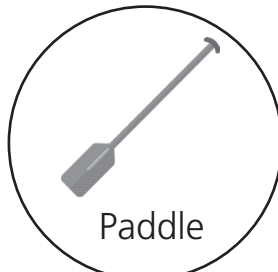
If you are going on a boat trip or a walk in the Preserve, you have the chance to experience some of the sights and sounds of the rivers and nearby boreal forest. Find the items below to check off the box and try for a bingo!

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What Will You Need to Travel Safely?

A trip on a river requires lots of gear. Being prepared includes knowing water safety, wildlife safety and being ready to experience all kinds of weather! Circle the items you will need to be prepared and safe while traveling on a river!



How does weather affect travel?

What Makes the Charley River Special?

The Charley River is protected by the Wild and Scenic Rivers Act. This protects the special features, natural cycles and cultural history of the entire river. Draw your own Wild and Scenic River below incorporating different examples of special features that would be protected in or near your river.
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Special Features

- Wildlife
- Landscape
- History
- Culture
- Recreation



What Plants are Used to Survive Here?

The Han Athabascan people are one group of Alaska Native people who have lived along the Yukon River for thousands of years and still do today. Collecting resources from the land to survive is still practiced. Look for these plants during your visit, but don't pick or eat unless you know how to identify your find!

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Blueberries



Low bush Cranberries



Fireweed



Prickly Rose



Crow Berries



Labrador tea

Have you noticed if any of these plants grow near each other? Which ones?

For an extra challenge, use a tally mark to count the number of times you see each plant!

Depending on the time of year, some of these berries might not be ready yet. Look at the leaves or needles and try an extra challenge of finding these plants before berry season!

How Do You Catch a Fish?

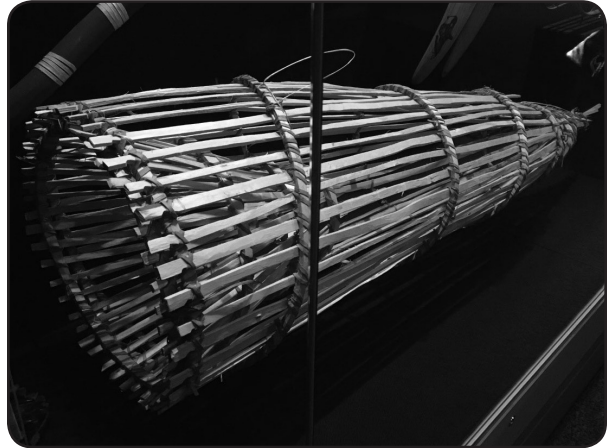
Many tools can be used to catch fish along the Yukon River. Alaska Native people have used many of these tools traditionally and many are still used today. Check out some of the examples below. Have you caught a fish? Tell someone what tools you used and your fish catching story!

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Fish Wheel



Fish Trap



Gill Net or Dip Net



Fishing Rod



What is Here in Winter?

Though much of Yukon-Charley's wildlife are sleeping in the winter, there is still a lot to do and ways to travel in the Preserve. Sled dog teams are great at traveling over frozen rivers, snow and ice! It can be hard work, but these sled dogs have the muscle, warm fur and the excitement to get out and run!

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Caring for many dogs can be a big job on a long journey. What are two things you would do to make sure your dog team is happy and safe?

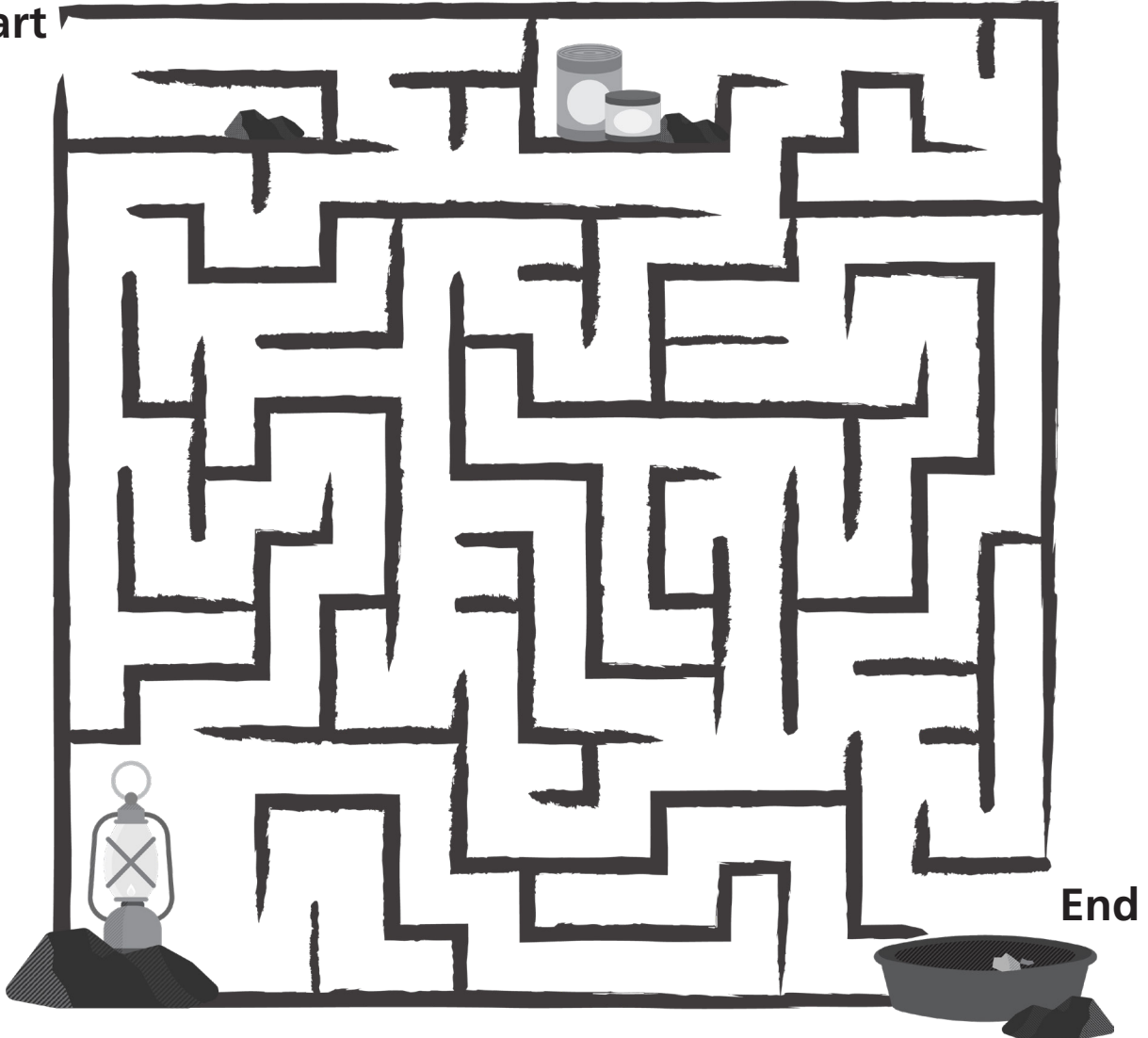
Sled dog litters often have themed names. What would you name your sled dogs if the theme was "river"?

What Was the Gold Rush?

The quest for gold brought many miners from all over the world to Interior Alaska about 100 years ago. Towns like Fairbanks and Eagle were established on rivers near miners' claims. There miners could buy supplies, and find other ways to spend their gold "dust". Find your way through the mining maze below.

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Start

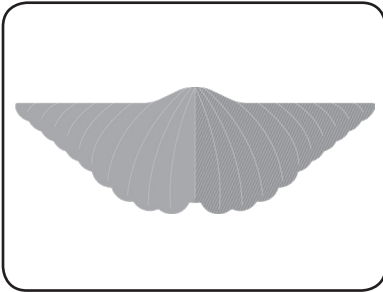


How Old Are Those Rocks?

The rocks along the Yukon River are unique because they span more than 700 million years of geologic time and many have fossils! Each picture below is a plant or animal that lived at a certain time in the past. Put the geologic periods below in order starting with the oldest (6) and ending with the youngest (1).

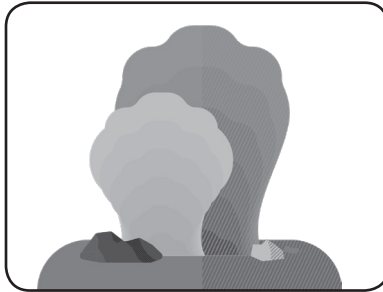
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Brachiopod



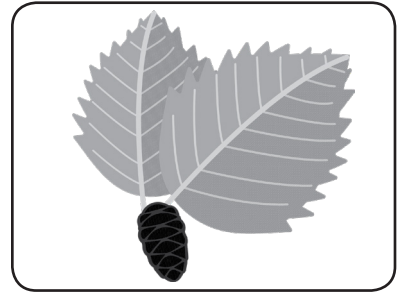
___ Permian.
300 million years ago,
sea creatures were
bountiful!

Stromatolite



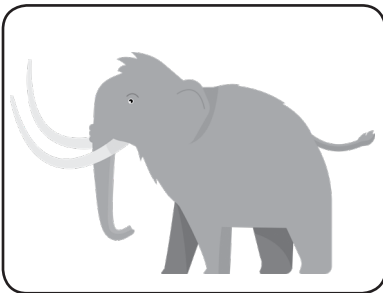
___ Precambrian.
longer than 542
million years ago,
early life appeared!

Alder



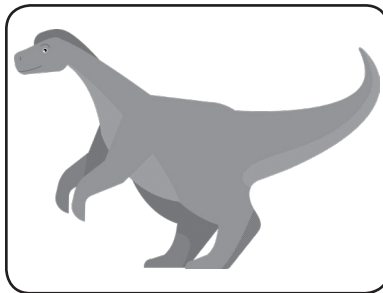
___ Cretaceous.
145 million years
ago, flowering plants
spread across the
land!

Mammoth



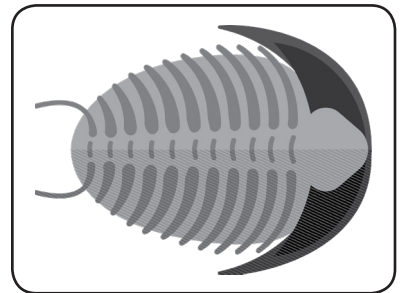
___ Quaternary.
2.5 million years ago,
Ice Age mammals like
the Woolly Mammoth
were abundant!

Dinosaur



___ Jurassic.
200 million years
ago, dinosaurs were
everywhere!

Trilobite



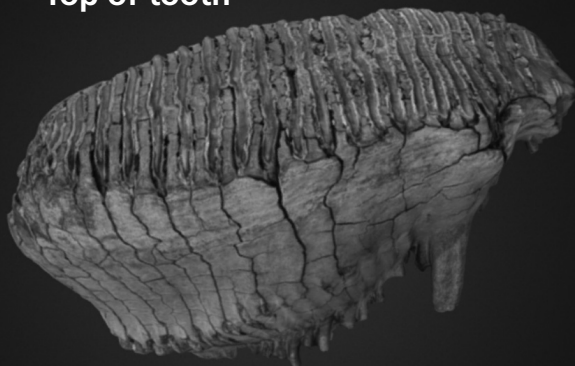
___ Cambrian.
540 million years ago,
trilobites (plated sea
creatures) lived in the
ocean!

What Was That Fossil?

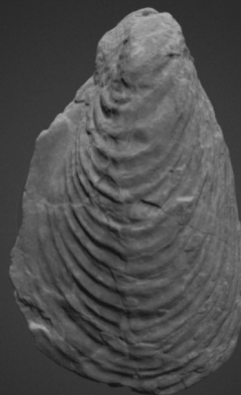
The rocks of Yukon-Charley contain many interesting fossils, ranging from animals that once lived in the ocean to the large mammals of the Ice Age. Paleontologists can make 3D models of these fossils to study, like the examples below. Observe these fossils and list three things you notice.

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Top of tooth



Mammoth tooth



Bivalve (shell)

Fossil Questions

What is the shape? What is the texture? What does that tell you about the animal when it was alive?

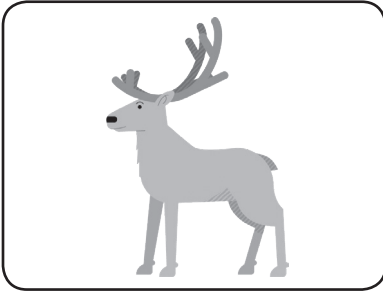
The Oldest Fossil

Fun fact: The oldest fossil discovered in the Preserve was found to be about 700 million years old! It is a type of tiny jellyfish.

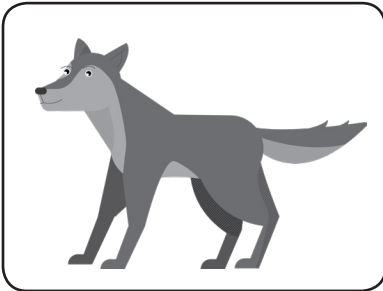
What Role Do Wolves Play?

The National Park Service has studied wolves in the preserve for over 20 years because they are a key species in the local ecosystem. The wolf numbers will affect how many caribou there are, and the size of the caribou herd will impact the plant species they feed on. Draw lines to label what each animal eats!

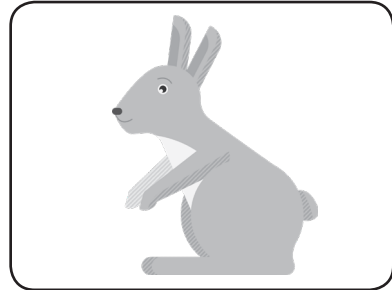
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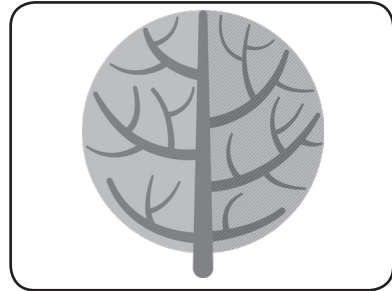
Caribou



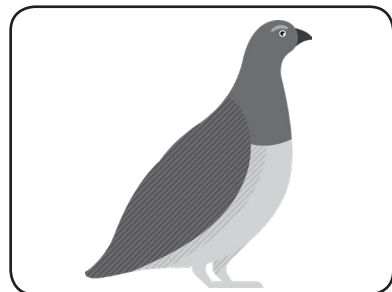
Wolf



Snowshoe Hare



Willow

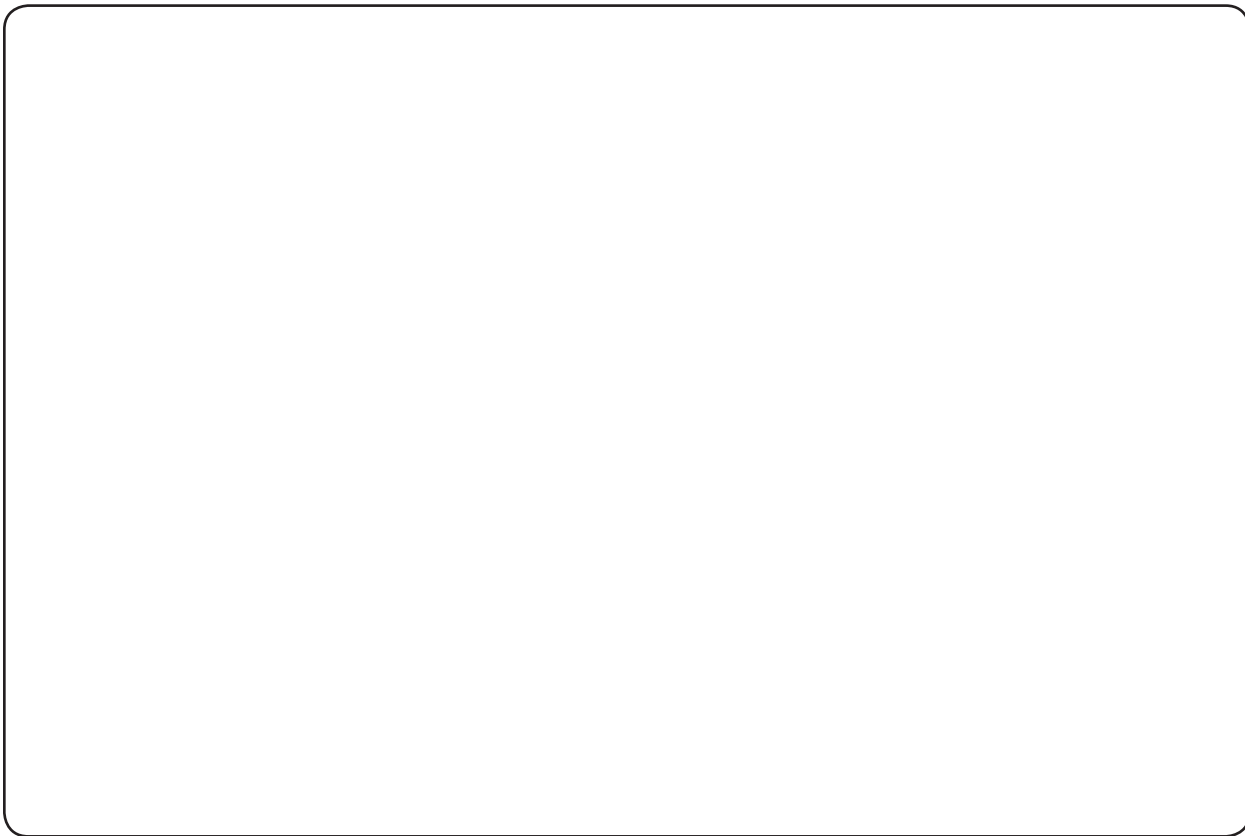


Ptarmigan

What is a Habitat?

Every animal in Yukon-Charley has a favorite habitat, a home that has all the things the animal needs to survive. Draw a picture below of an animal habitat and label the food, water, shelter and space the animal would use to survive. Some animal examples: wolf, bear, squirrel, fish, bird, moose.

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What is the Best Peregrine Falcon Habitat?

Yukon-Charley is home to one of the largest breeding populations of peregrine falcons in North America. Certain areas of the Preserve are an ideal home for these falcons because they like to nest on cliffs near rivers far away from people and pollution. Which habitat below would a falcon like best?

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Protect

What can we do to protect peregrine falcon habitat?

What is Permafrost?

The Preserve, like much of Alaska, contains soil that is frozen all year round called permafrost. Permafrost helps plants and animals by keeping water close to the surface, but a layer of plants need to grow on top of permafrost to keep it frozen. Try the experiment below to simulate how permafrost stays frozen!

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1. Gather the following items:

- one water glass
- one insulated mug
- four ice cubes
- one timer or clock

2. Place two ice cubes in each container and time how long it takes the ice to melt in each.

3. In which container did the ice melt faster?



The soil and plants on top of permafrost are like that mug, keeping the ice underneath cold.

This is why it is very important to not disturb or kill plants that have permafrost below, because without those plants the permafrost will thaw.

When permafrost thaws it can cause trees to slump and die, and the animals that relied on those trees like birds will no longer have a habitat. This shows how everything in an ecosystem is connected.

Protect

How can we do our part to make sure permafrost stays frozen?



CONGRATULATIONS!

As a Junior Ranger, I will **explore** National Preserves and learn about these special places. I will help to **protect** Yukon-Charley Rivers National Preserve by sharing what I **learned** with my family and friends.

Junior Ranger's Signature

Park Ranger's Signature

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