

Thank you for choosing to become a Junior Ranger! This program is for people interested in discovering Alaska and its wild places. At the Alaska Public Lands Information Center, you can become a Junior Ranger at three different levels:



Bear Level:

Complete 4 booklet activities.



Wolf Level:

Complete 7 booklet activities.



Eagle Level:

Complete all of the booklet activities.



Watch for underlined words throughout your Junior Ranger Activity Book. These words are defined in a glossary on page 26.

When you finish, take this booklet to a Fairbanks Center Staff Member to receive your official certificate and badge!

GOOD LUCK!

We know Alaska is a BIG place! If you cannot make it back to the Fairbanks Center before the end of your visit, complete your Junior Ranger requirements and send us this page. We will mail you your official Junior Ranger Certificate and Badge.

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 Easiest Activities
 Harder Activities
 Advanced Activities

Student Name: _____

Student Signature: _____

Adult Signature: _____

Please send to: Fairbanks Center
101 Dunkel Street, Suite 110
Fairbanks, AK 99701



Alaska is a unique state.

It is home to many interesting people, places, plants, and animals. Alaska is part of the United States of America.

Alaska Fast Facts:

Alaska may look small on maps, but it is **bigger** than any other state!

Almost 16% of Alaska is “designated wilderness” and set aside by law to protect the **wild nature** of the land, plants, and animals that live there.

Alaska is home to twice as many **caribou** as it is to people!

Alaska is nicknamed the “**The Last Frontier**”. Do you have a nickname?

What is it?



The weather in Alaska can be very extreme. The record high temperature is 100° F. The record low temperature is -80° F! Circle the symbols to tell the weather for today!

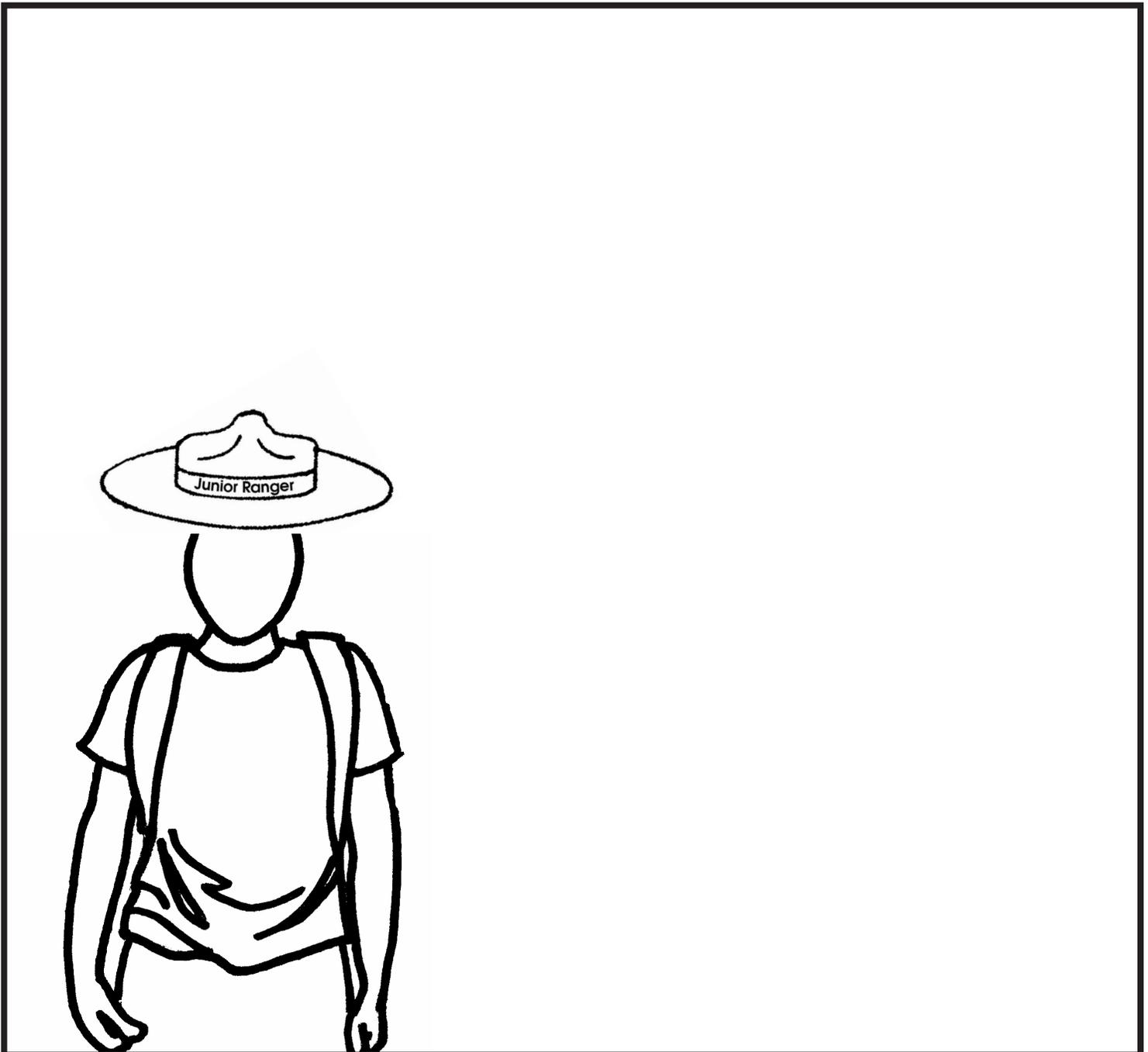




Alaska has a lot of public land. What is public land?

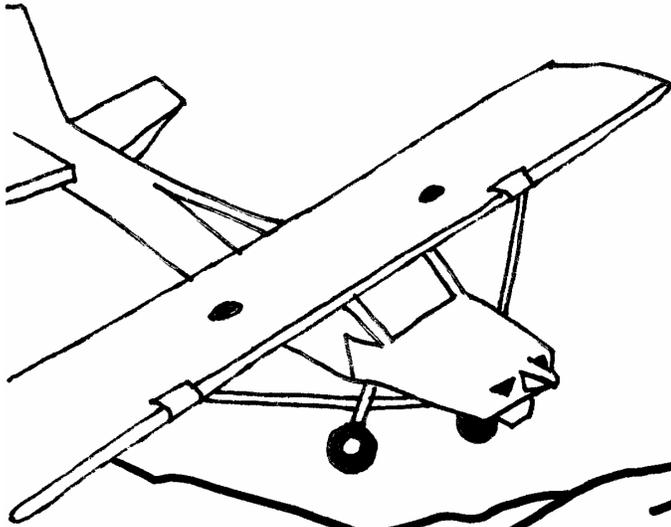
A public place is a place where everyone is welcome. Public lands are lands where **everyone** is welcome-- including you! Rangers work at public lands to help you explore, learn about, and protect what is **yours**.

Below: Color yourself in Alaska! Draw your favorite public land in the background. Include your friends and family in the picture too!



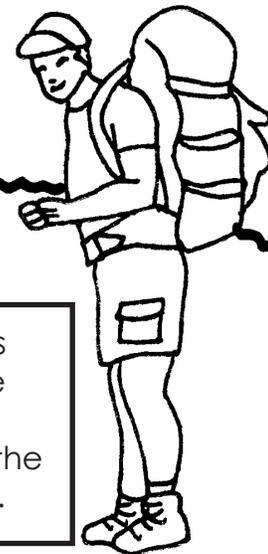
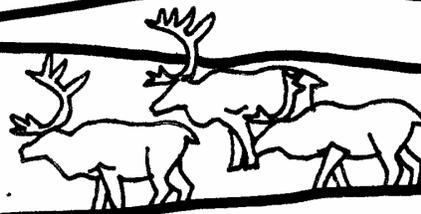
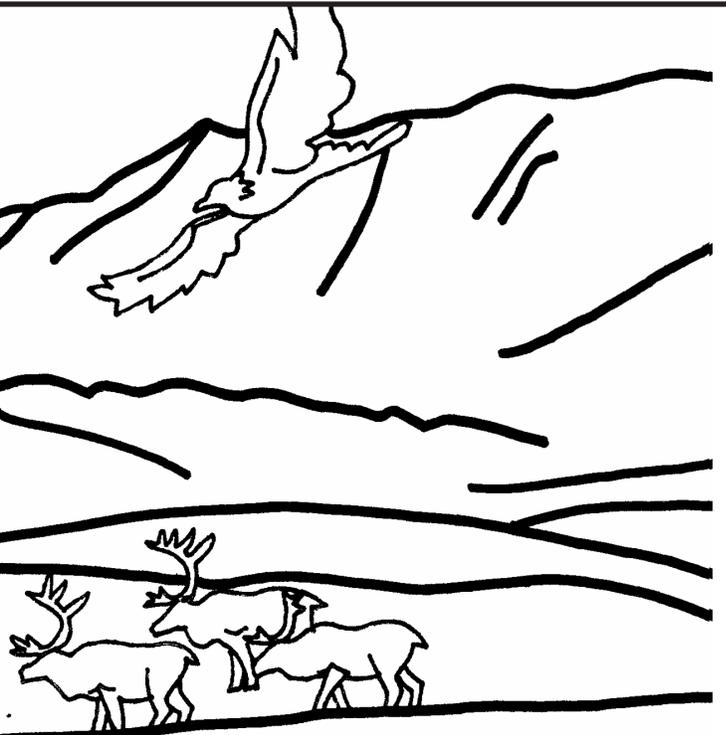


One kind of public land is a National Park. The National Park Service was created in 1916 to protect natural and cultural treasures in the United States. Read and color this page to learn about Alaska's National Parks.



There are very few roads in Alaska. The only way in and out of many parks is by foot, plane, boat, dog team, or skis. Which way would you pick to go to the parks?

There are 15 National Parks in Alaska.



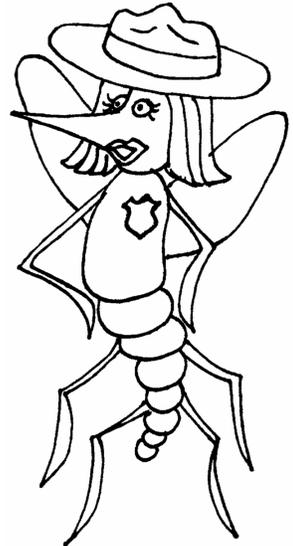
The symbol of the National Park Service is this arrowhead. The tree and bison represent the many plants and animals that live here. The mountains and water represent the beauty of the parks, and the recreational values they hold.

Look for more symbols as you do the other activities!

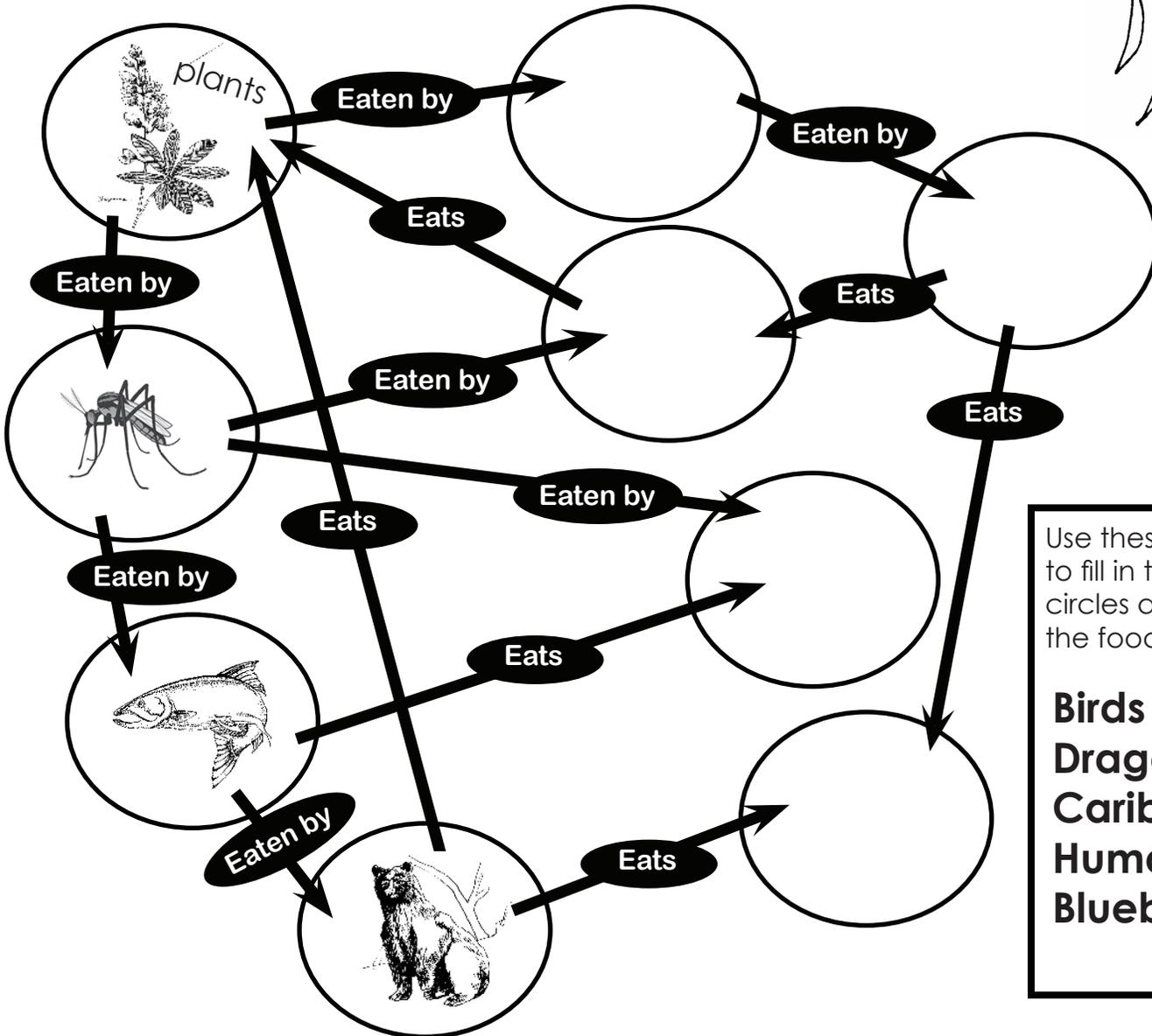


Whoa! Don't swat me!
I am Miss Skeeter!
I know we can be annoying,
but we are very important!

Did you know that a mosquito's main food source is nectar, which comes from plants. Females drink blood to get enough energy to lay eggs.



Mosquitoes are an insect. Because they are small and tasty, they are an important food source for many animals. The food chain below shows how mosquitoes are connected to plants and animals. Using the list below, try to fill in the other bubbles to make a food web.



Use these words to fill in the empty circles and finish the food web.

Birds
Dragonfly
Caribou
Human
Blueberries

What do you think would happen if there were no mosquitoes in Alaska?



Alaska's animals live in extreme weather. Over many years animals gradually change how they look and how they live in order to survive. These changes are called adaptations. Use the hints about each animal to match it with the correct adaptation.

In the summer, I am brown or gray, and, in the winter, I am white.

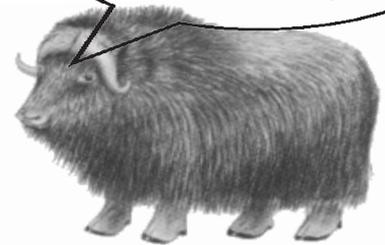


Snowshoe Hare

Hibernation

A period of sleep that enables an animal to slow its heartbeat and breathing to survive cold weather.

In the winter I look for places where the snow has been blown away so I can get the grass I eat.



Muskox



Grizzly Bear

Migration

Movement from one place to another, usually based on changes in seasons, search for food, or a place to give birth to young.

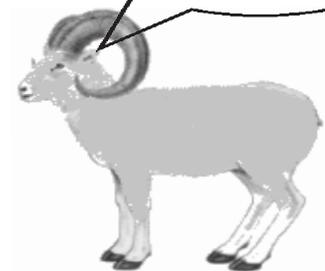


King Salmon



Caribou

I travel up and down mountains to get to warmer climates and food.



Dall Sheep

Bulking Up

Adding thick layers of fur and fat to the body for insulation during the winter.

I am the only mammal that can lower my body temperature to below freezing.



Arctic Ground Squirrel

Camouflage

A way of hiding by having fur or feathers that blend in with the surrounding environment.



Canada Goose

Note: Adaptations may match to more than one animal.



Use your knowledge of animal adaptations to create your own arctic animal. Show the creature in it's habitat. A habitat includes an animal's shelter or home, food, water, and the open space it needs to survive.



Explain something special about your animal that allows it to survive in Alaska.



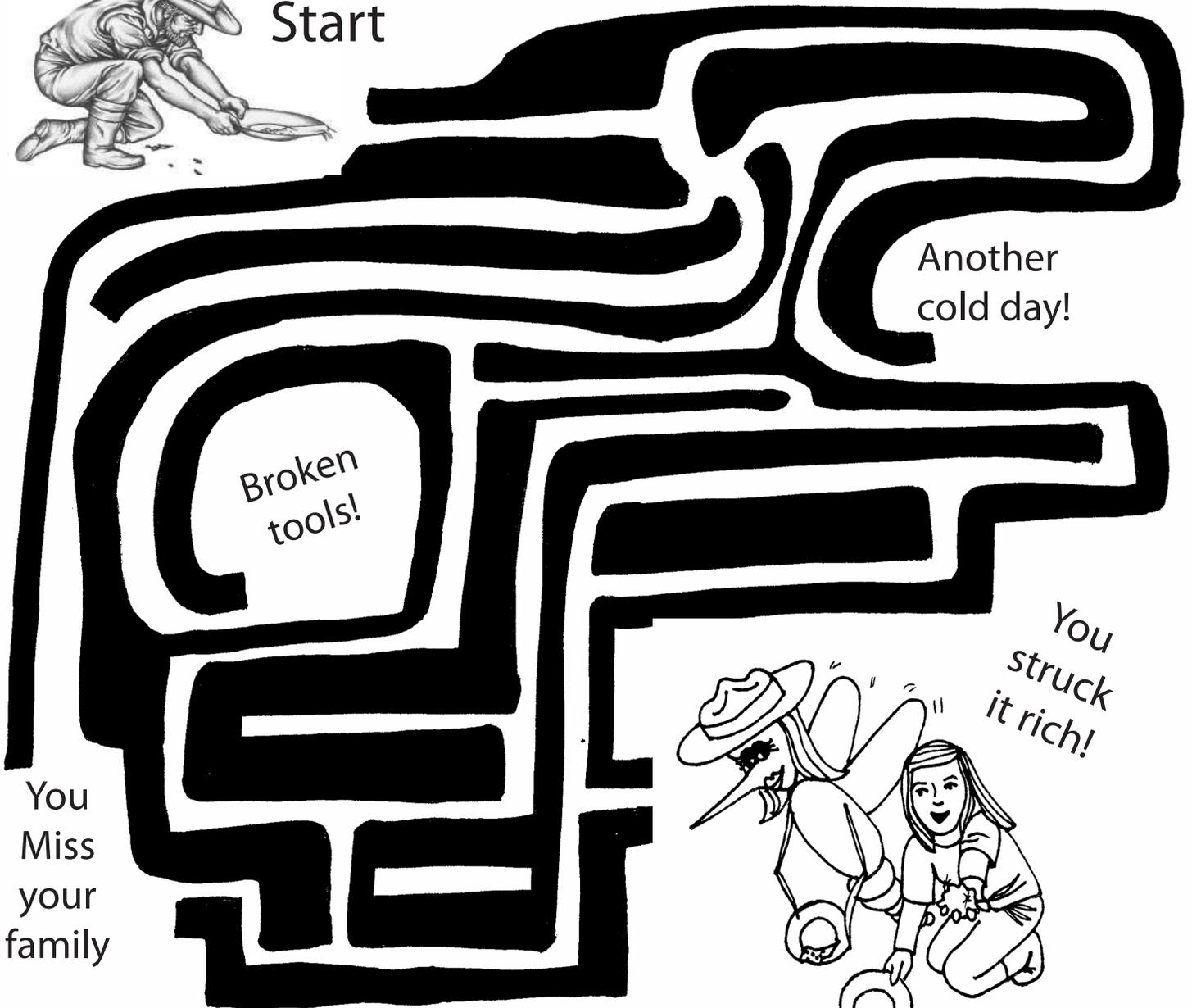
Alaska is home to many unique animals. Many Alaskans hunt and fish to provide food for their families. The Alaska Department of Fish & Game makes rules about hunting and fishing to protect the resource. They also teach people about and protect lands for Alaska's unique animals.



Gold miners came to Alaska in the late 1800's. Many people rushed here looking for the precious metal. Only a few struck it rich, but many of Alaska's early communities were created by gold seekers and the business they brought. Help Prospector Pete find the gold at the end of the maze!

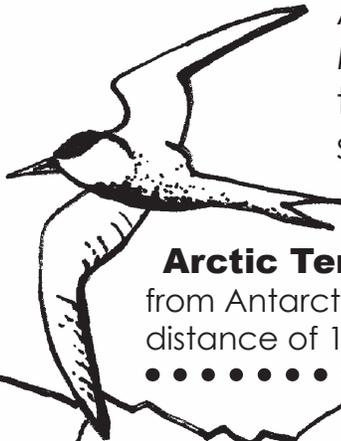


Start

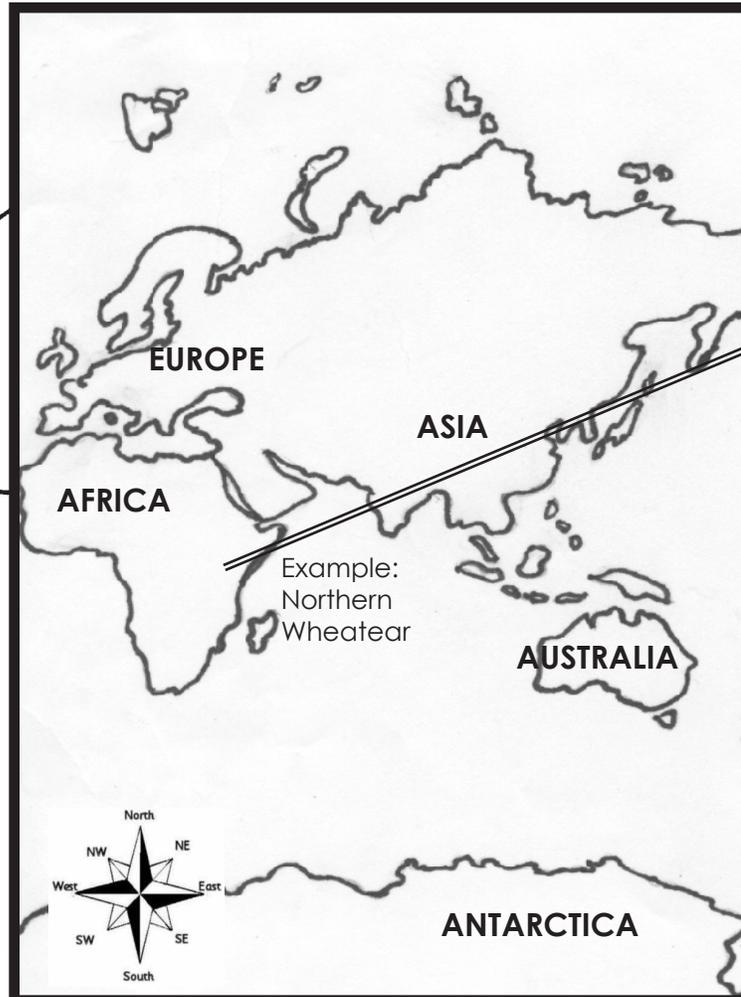


The Bureau of Land Management manages public land in Alaska. You can do many things on these public lands including recreational gold panning, hiking, camping, ride ATV's and much more!

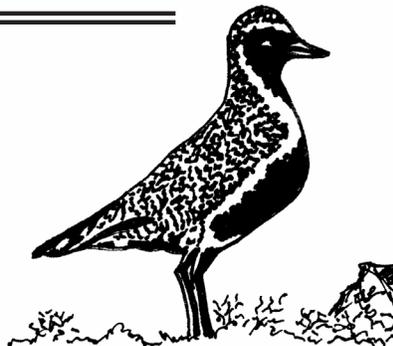
Alaska provides important habitat for migratory birds. Migratory birds travel from their winter homes all around the world to nest and feed here, in Alaska. Use the symbols next to each bird to trace their path to Alaska.



Arctic Terns migrate all the way from Antarctica to Alaska! This is a distance of 12,000 miles one-way!



The **Northern Wheatear** flies across many countries during its yearly migration. It heads east from Africa across Asia to settle in Alaska for the summer.

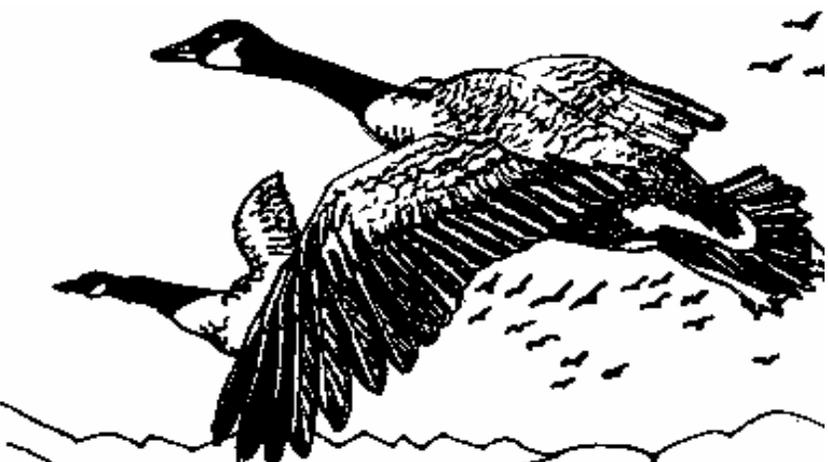


The **Golden Plover** is the fastest migrating bird, flying 60 to 100 miles per hour! Plovers travel all the way from Hawaii, Asia, Australia, and South America to spend the summer in the Alaska.

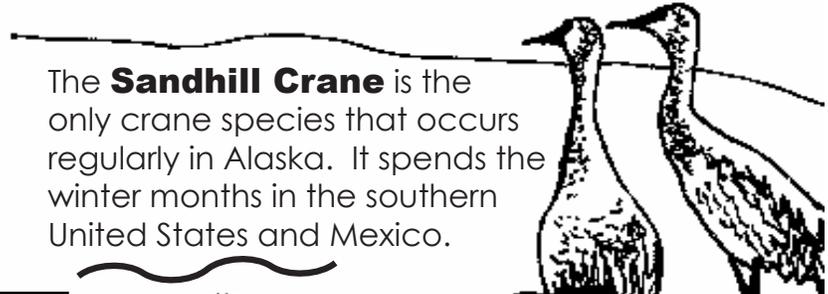




Are you visiting Alaska from another place?
Draw the route from your home to Alaska using a zig zag line.

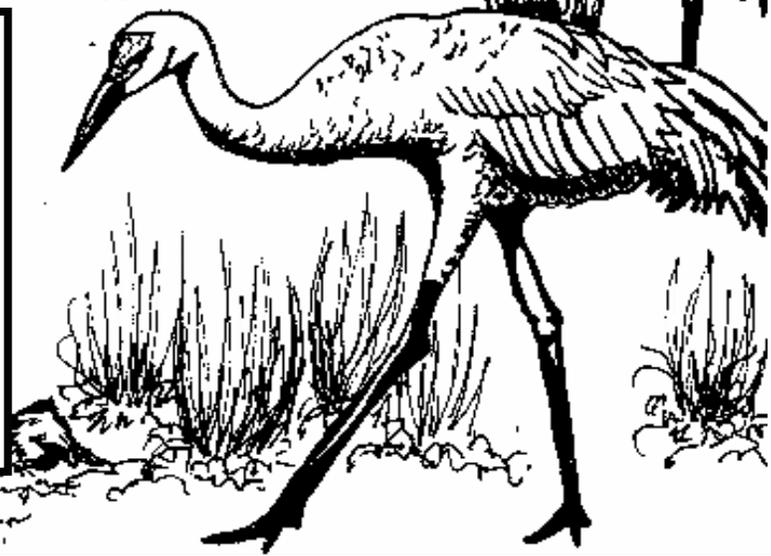


Have you ever seen a "V" of birds in the sky? Chances are, it was a flock of **Canada Geese**. They fly from the middle and southern United States to nest in Alaska.



The **Sandhill Crane** is the only crane species that occurs regularly in Alaska. It spends the winter months in the southern United States and Mexico.

Birds come to Alaska for food and to raise their young. Why did you come here, or why do you live here?



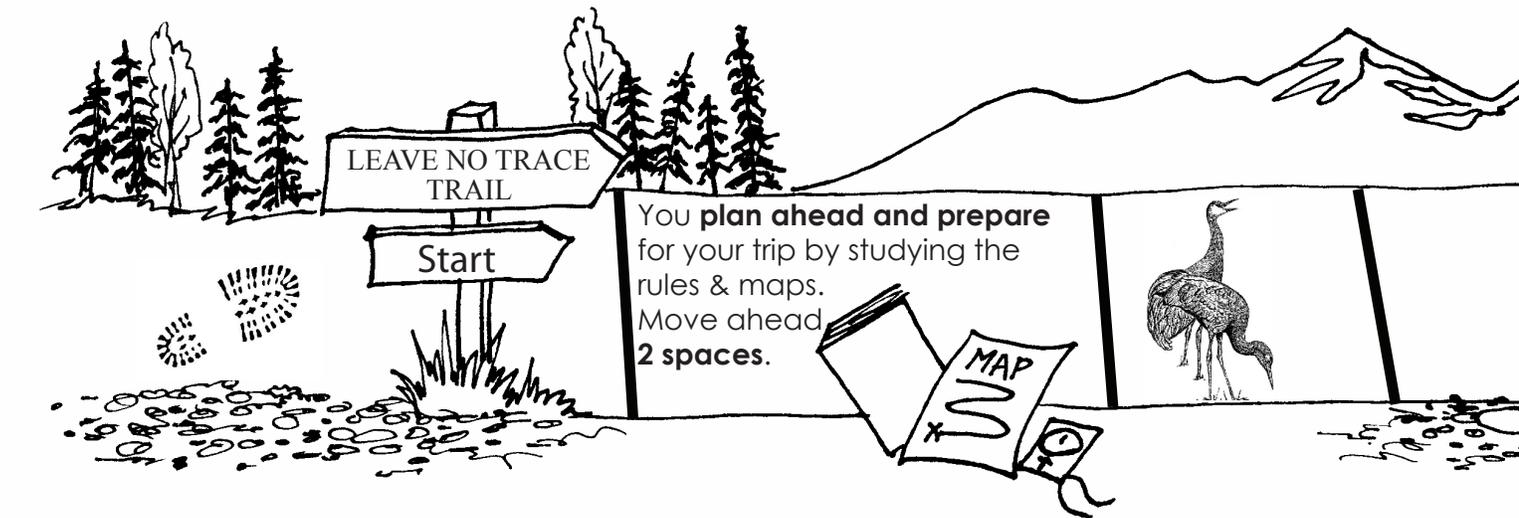
The US Fish and Wildlife Service was created for animals. They make rules to protect animals and set aside public land called Wildlife Refuges. There are 16 wildlife refuges in Alaska. People can visit wildlife refuges to enjoy wildlife and recreate in many other ways.

GIVE NATURE SOME SPACE and LEAVE NO TRACE

As a Junior Ranger, it is your duty to practice and teach others about Leave No Trace by treating nature with respect. First, read the rules of Leave No Trace around the trail for each turn to play the game below. Heads -  move one space. Tails -

The Seven Principles of Leave No Trace are:

Plan Ahead and Prepare



You **plan ahead and prepare** for your trip by studying the rules & maps. Move **ahead 2 spaces**.



You **pack out everything** you brought in, including your trash and leftover food. Move **ahead 2 spaces**.

You didn't put your food in a **bear resistant food container**. A bear gets into camp and eats your food! **Go back to the beginning**.

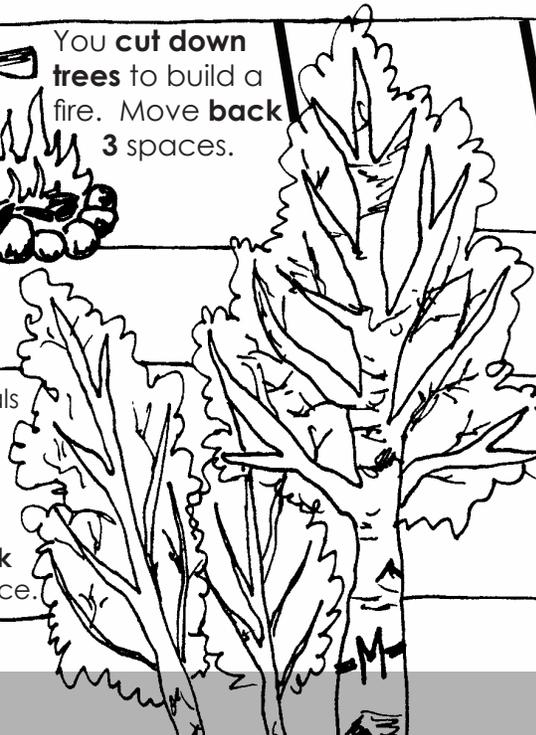


You **cut down trees** to build a fire. Move **back 3 spaces**.

CONGRATULATIONS
Junior ranger!

By practicing Leave No Trace you left Alaska beautiful. Everyone who visits after you will be able to experience the natural beauty and treasures the way you did! Thank You!

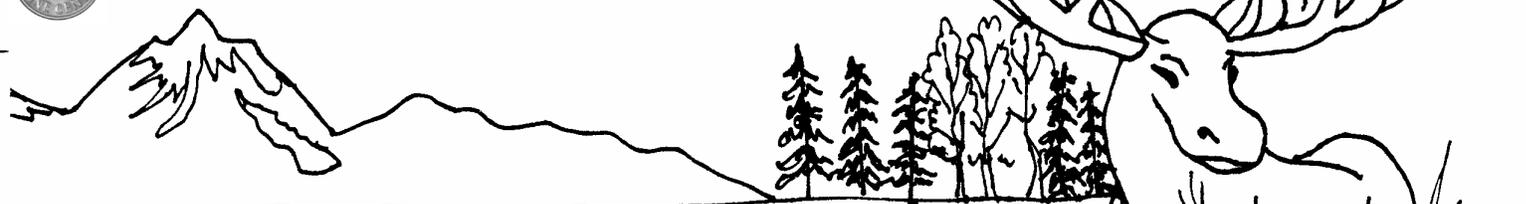
You **carve your initials** into a tree and **damage the natural beauty**. **Go back 1 space**.



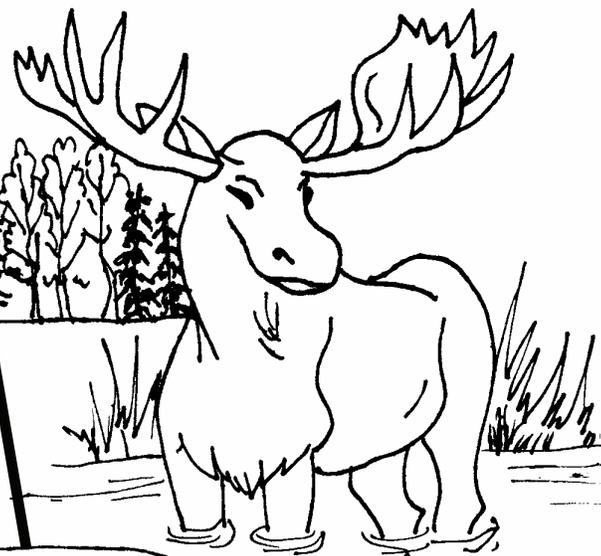
Travel and Camp on Durable Surfaces



No Trace. Practicing Leave No Trace means the edge of the game. Then, use a coin and flip it to move three spaces.



You **hike and camp on stable surfaces**, such as rocks, to prevent damage to the ground. Move **ahead 1** space.



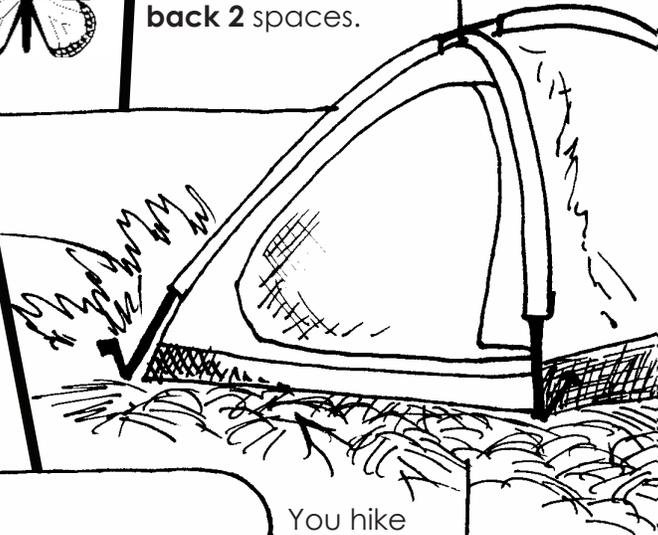
You stop to photograph a moose and **get too close**. It runs away. You are lucky it didn't run at you! Move **back 2** spaces.

You **cook with a backpacking stove** so that you don't disturb the area with fire rings & burn scars. Move **ahead 3** spaces.



You find caribou antlers on the trail and after examining them, you **leave them just how you found them**.

Move **ahead 1** space.



You hike past already made camp sites to put one **in a new place**. You smash grass and plants.

Move **back 1** space.



You **dig a "cathole"** far away from camp and water to go to the bathroom. It looks like you have never been there because you pack out your toilet paper too! Advance to the end!

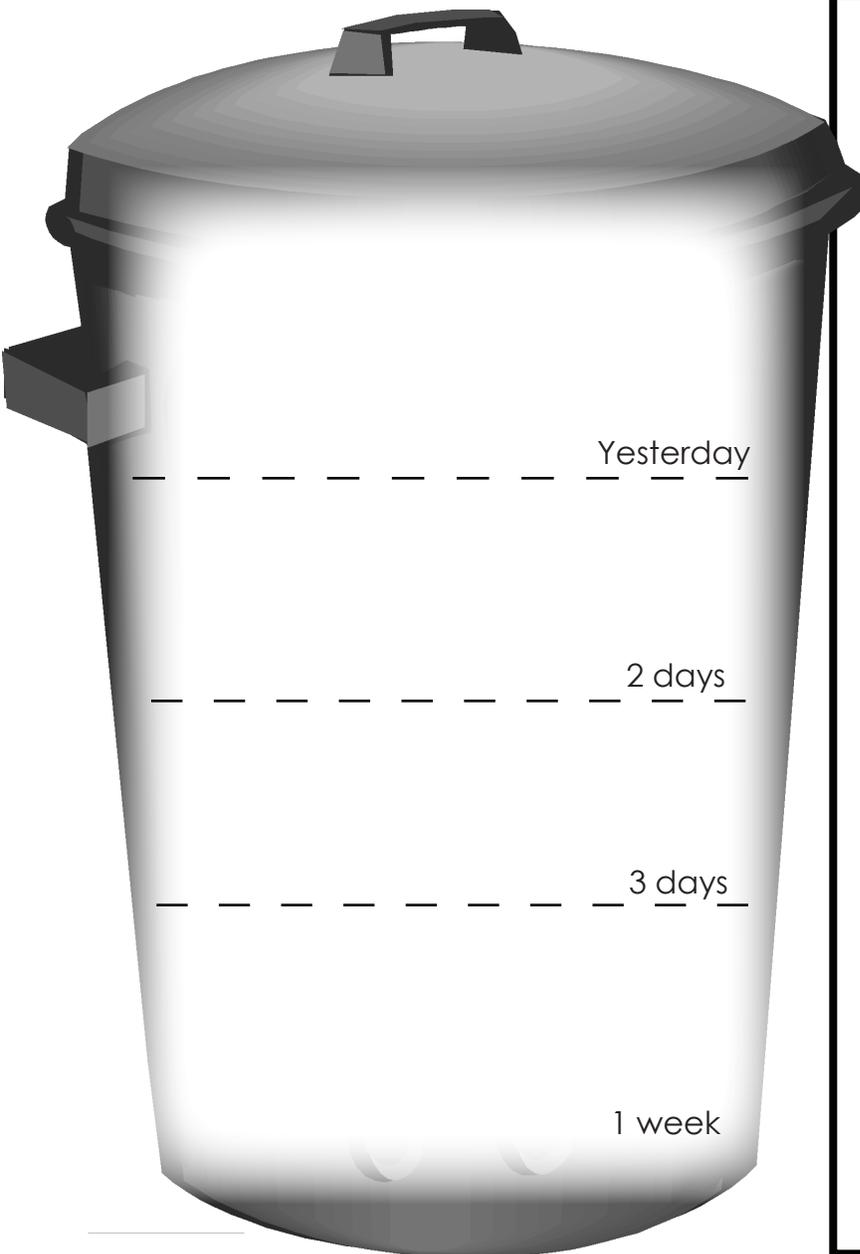




Imagine a time when Alaska had no planes, cars, motorboats, or snowmobiles. Alaska Natives were the first people here. They have lived in Alaska for thousands of years, without many of the things we have today.

We are fortunate to know how people lived because many elders still remember the days without the modern things we have, and they can share that information with us. All over Alaska, people called archeologists study human cultures through the recovery and collection of artifacts that people once left behind.

The activity below will train you to be an archeologist. On the next page you will practice your skills with real artifacts.



1. Fill in the trash can. Start at the bottom drawing in 1-2 things you have thrown away in the past week, and work your way up.
2. Now, looking at your trash can, answer the questions below.

What did this person eat?

What did this person do for fun?

How long has this trash existed?



One of the many things archeologists study are middens. Middens are like ancient trash piles. The type of trash people had thousands of years ago was very different from the kind we have now, but just like your trash, the midden's tell us a lot about how Alaska's first people lived. Study the archeological site below. Use your skills to answer six questions. Watch for helpful clues!

1. What did these people eat?

Clue #1: This midden was found far north in the Brooks Range where millions of caribou migrate each year.

2. How did people get and eat their food?

Clue #2: An ulu is a type of knife.

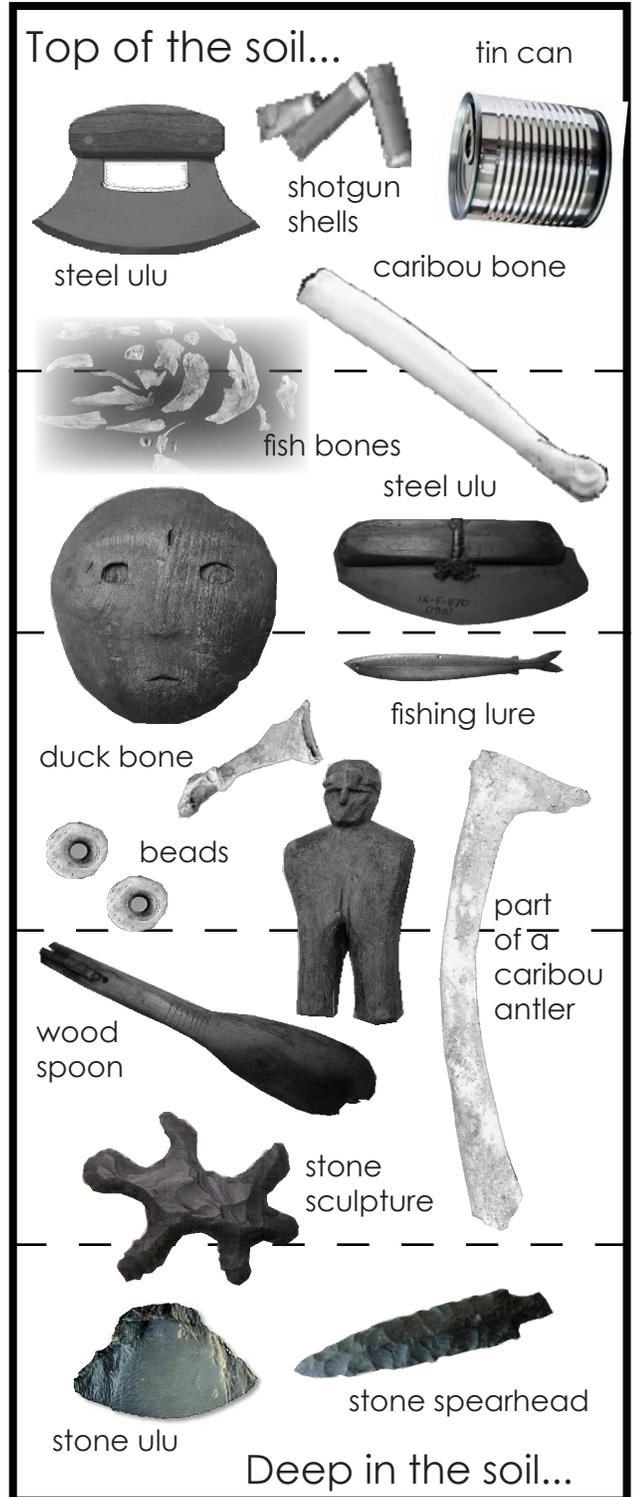
3. What did these people do for fun?

4. How did their lives change over time?

Clue #3: Steel does not occur in nature, it was brought to Alaska by early traders.

5. If the spearhead deep in the soil is 3000 years old, how long do you think people lived here?

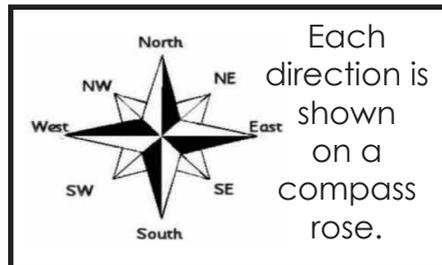
6. Is there anything else you learned about the people who lived here? Share it with a friend or adult!





Maps have four cardinal directions: **NORTH, SOUTH, EAST, AND WEST**. Between each cardinal direction are inter-cardinal directions. They are northeast (NE), southeast (SE), southwest (SW), and northwest (NW).

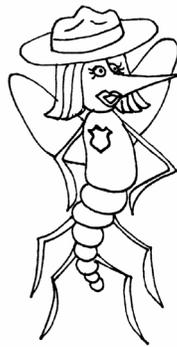
Katy is camping at a state park in Alaska and decides to take a hike. Mark her journey on the map and answer the questions below by using the compass rose.



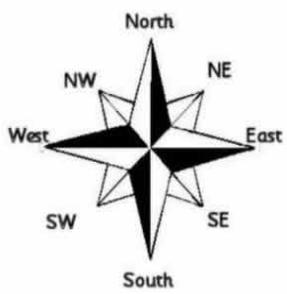
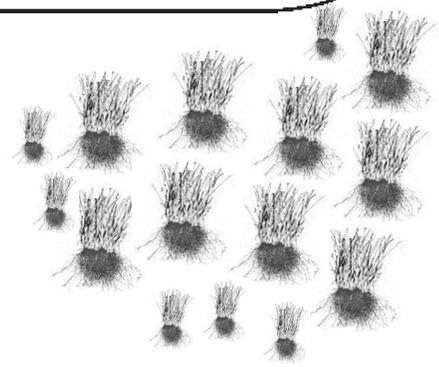
1. Katy tells her family where she plans to hike and when she will be back. She begins from camp. **Draw a star at the tent to mark her start.**
2. First, Katy heads north to the headwaters, or beginning, of the nearby creek. **Write a capital H for headwaters here.**
3. Next, Katy goes west into the boreal forest. **Draw a tree where Katy enters the woods.**
4. Katy finds a set of snowshoe hare tracks and follows them. **In which direction do the tracks lead her away from the forest?** _____
5. Katy stops at the edge of the tussock field. **Place a capital T where Katy stops.**
6. Then, Katy remembers a beaver dam on the creek and goes south to inspect it. Halfway between the tussock field and the beaver dam Katy stops because she sees a bear. **Write a capital B here.**
7. It is time for Katy to head back to meet her family. She hikes back to the headwaters of the creek. **Draw a circle around the headwaters.**
8. From the headwaters, Katy walks straight toward the pond to meet her family for dinner. **Which direction is she going?** Hint: This direction is between two cardinal points. _____
9. Katy decides to head back to the tent for bed. **In what direction does Katy go to end her day's journey through the state park?** _____



In Alaska, you can travel a very long way without seeing a sign, person, or path to help you find your way. If you are traveling in Alaska's backcountry you should have a map and know how to read it!



A tussock is a thick clump of grass held together by its roots. They are found in wetlands and tundra and are very challenging to walk through.



The Alaska Department of Natural Resources manages Alaska's State Parks & other resources. State parks are great places to camp, hike, fish, and sightsee! Did you know there is a Denali State Park and a Denali National Park?



Imagine creating and being the ranger of your own public land! You can make a park to protect a special place, a wildlife refuge to protect your favorite animal, or a place filled with trails and rivers to explore!

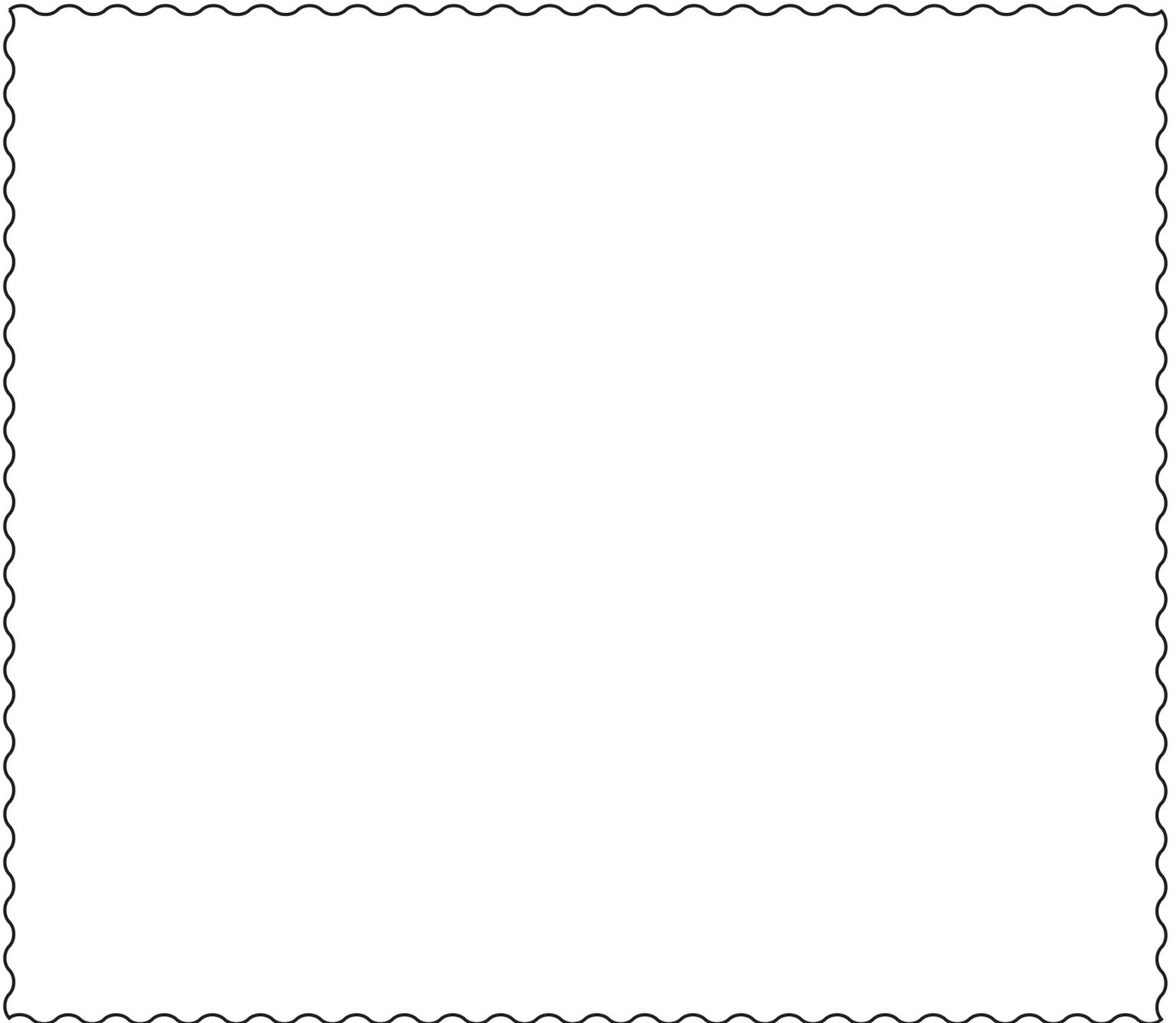
Draw a map or picture of your public land below. On the next page you can create rules to protect the treasures on your public land.

What is your public land's name? Write it at the top.

Draw and label any rivers, mountains, lakes, glaciers, plains, or other landforms.

Draw and label any hiking trails, cabins, roads, bridges, or other man-made things.

Draw and label some plants and animals that live in your public area.





List 2 things people will **discover** at your public land.

1.

2.

List 2 rules you have to **protect the visitors**.

1.

2.

List 2 rules you have to **protect the land and animals**.

1.

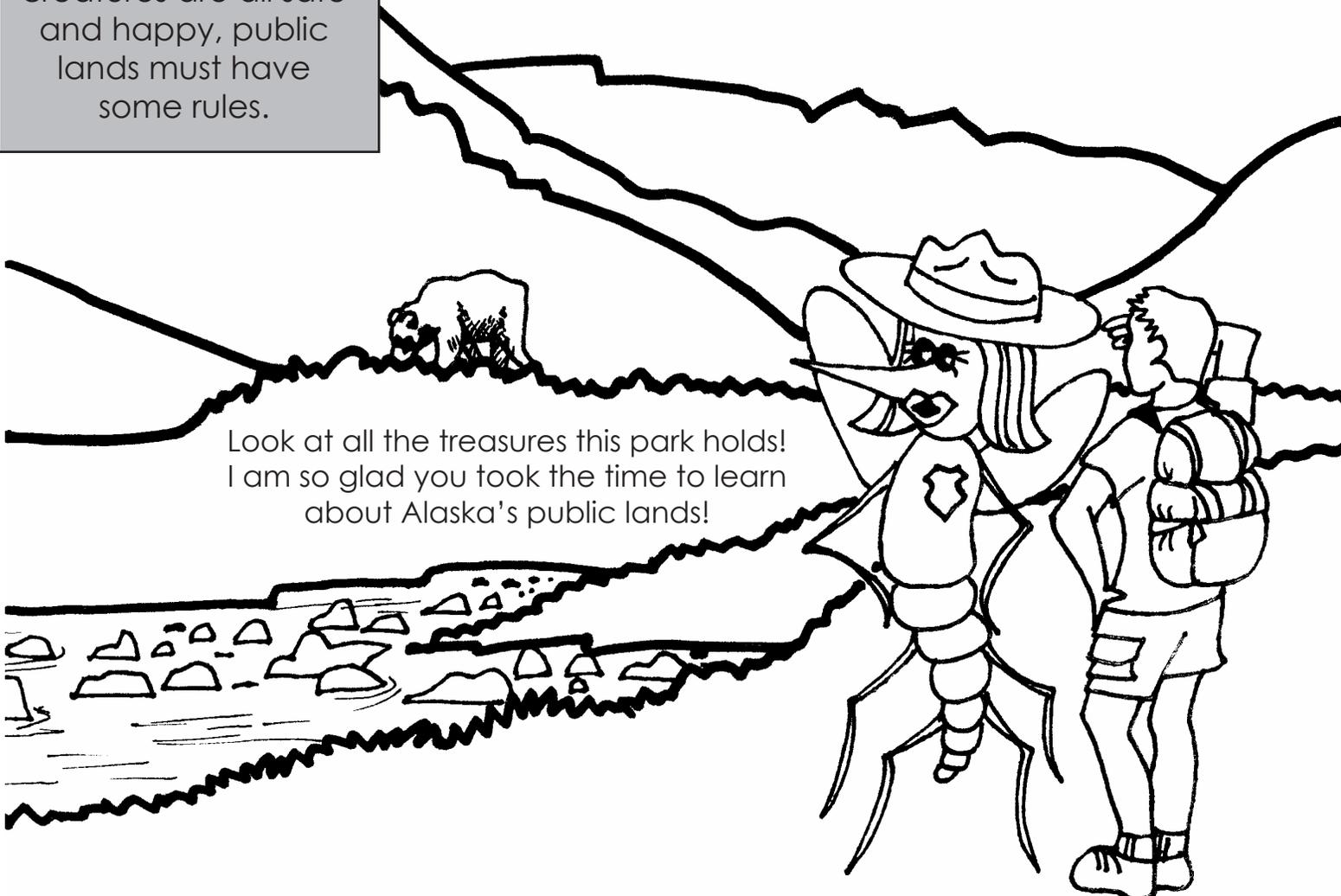
2.

As a public land, your chosen place will be open for everyone to explore and enjoy. To make sure that the visitors, land, and its creatures are all safe and happy, public lands must have some rules.

What are visitors allowed to **take** from your public land?
(For example: nothing, flowers, oil, hunted animals, trees)

What are visitors allowed to **bring into** your public land?
(For example: pets, cars, chemicals, canoes, four wheelers)

Look at all the treasures this park holds!
I am so glad you took the time to learn
about Alaska's public lands!





Glaciers are large, slow moving masses of ice. Read the steps below to learn about how glaciers are formed.



Step 1



Glaciers begin to form high in the mountains when new, airy snowflakes fall and push down on older layers of snow underneath them.

Step 2



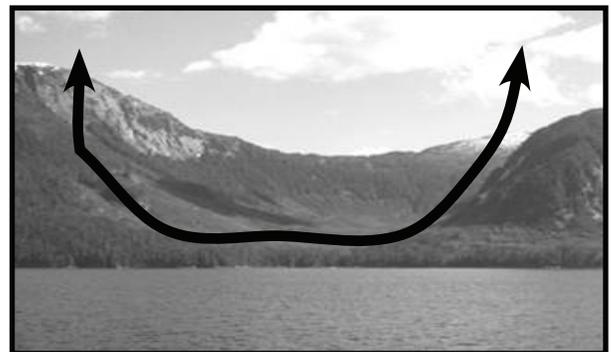
Eventually the air spaces are all squeezed out, and the lower layers turn to ice. The ice begins to look blue.

Step 3



Gravity allows the glacier to flow downhill, just like a river. The glacier picks up rocks as it moves along grinding a valley out from underneath it.

If the glacier melts away, all that is left is the “U” shaped valley that it eroded. Many glaciers in Alaska have melted since the last ice age leaving big valleys behind.



If all of the planet’s glaciers were put together, they would almost completely cover South America! Many scientists believe that glaciers all over the world are in danger of melting because of global warming.

What is one thing that could happen if all of the earth’s glaciers melted?



The National Forest Service manages land in Southeast and Southcentral Alaska. Because of their location near the coast, there are thousands of glaciers in Alaska’s National Forests! The Chugach N.F. has over 10,000!

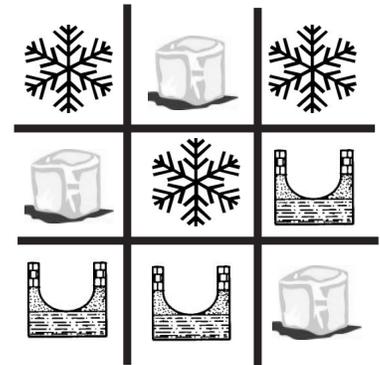
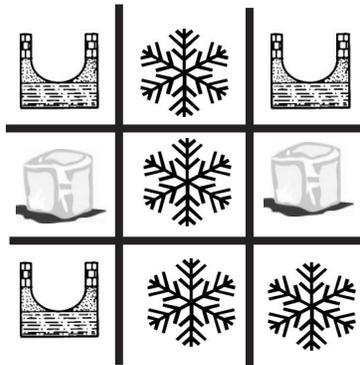
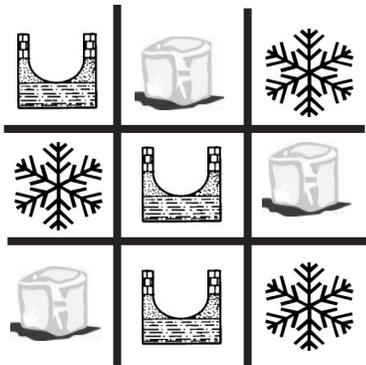


Play Glacier Tic-Tac-Toe! In each game, draw a line through the symbols that show the correct order of steps for the formation of a glacier.

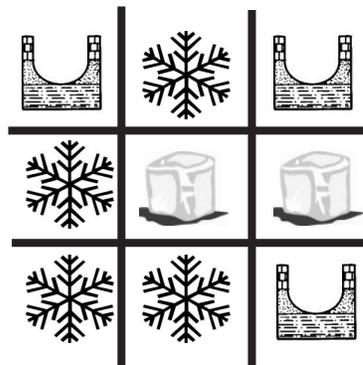
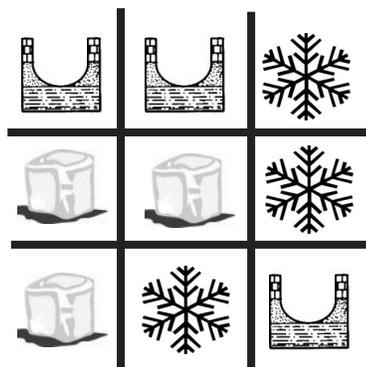
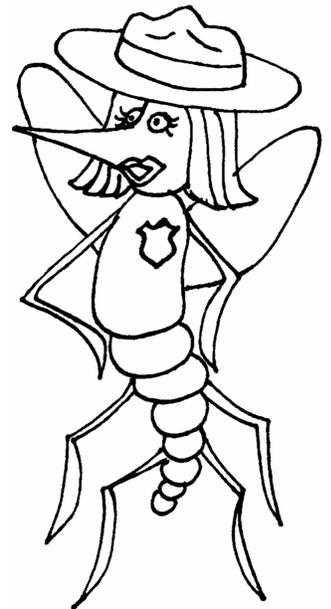
Step 1  ACCUMULATION of tiny snowflakes.

Step 2  PRESSURE packs flakes together forming ice.

Step 3  GRINDING erodes gigantic "U" shaped valleys.



No one knows for sure, but it is estimated that Alaska is home to 100,000 glaciers!!!



The US Geological Survey is a group of scientists that study our Earth. Alaska is a great place to study the Earth because of our glaciers, oceans, volcanoes, mountains, and extreme weather!



Naturalists are people who study and appreciate nature. Because you have been studying nature, you are becoming a naturalist too! Use what you know about Alaska's animals to complete the activity.

1. Pick an Alaskan animal to think about. What is it? _____
2. Close your eyes for a few minutes and imagine you are the animal. Think about how long it lives, where it travels, and what it eats.
3. Now, put your thoughts on paper! Write a short poem about what it is like to be the animal. The words do not need to rhyme. You can use any words that come to your mind when you think about your animal.

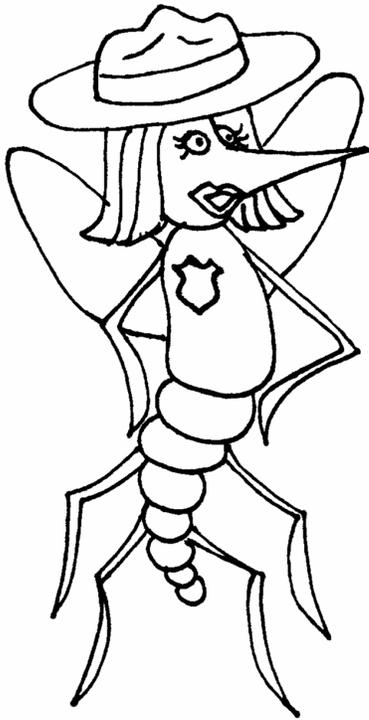


Example Poem:

As a bear, With thick hair,
I eat salmon all day, and watch the cubs play.



Just like you, many people are inspired by the beauty of Alaska. The Alaska Department of Community and Economic Development helps towns develop businesses, parks, and services so that other people visiting Alaska feel welcome here.



Keep learning and exploring nature at home! Share these activities with your family and friends, and teach them what you've learned about Alaska.



Quick! Move the way an animal moves. Have others guess what it is.

Find a bird and watch it as you count to 25. Tell someone what you noticed.



Stop to smell some flowers.



Compare the colors of animals with their surroundings.



Find 2 things that have been changed by an animal. Find 2 things that have been changed by a person.

Become a Junior Ranger at another park or on the internet!



Find examples of numbers in nature: 1 head, 2 wings, 3 petals, 4 leaves, etc.



The Alaska Department of Transportation is in charge of the roads, ferries, and other means of transportation in the state. We hope you visit Alaska or the Fairbanks Center again soon-- no matter how you get here!

Adapt- (ad-apt) *verb*. To change your behavior or physical features so as to fit a new or specific use or situation.

Adaptation- (ad-ap-tay-shun) *noun*. Change in an organism or its parts that fits it better for the conditions of its environment; also : a structure resulting from this change.

Archeologist- (ark-ee-ol-u-jist) *noun*. The scientific study of historic or prehistoric peoples and their cultures by studying their artifacts, inscriptions, monuments, and other remains.

Backcountry- *noun*. A term referring to a minimally inhabited region.

Boreal Forest- (bore-ee-al) *noun*. A northern type of forest largely made up of conifer (needle-bearing) trees.

Cardinal Directions- *noun*. The four principle compass points: North, South, East, and West.

Food Chain or Web- *noun*. A diagram showing how plants and animals are connected through their diets.

Glacier- (glay-sheer) *noun*. A large body of ice moving slowly down a slope or valley or spreading outward on a land surface.

Habitat- (hab-it-at) *noun*. The place or type of place where a plant or animal naturally or normally lives or grows. It has 4 parts: food, water, shelter, and space.

Headwaters- *noun*. The place where a river begins.

Leave No Trace- *noun*. A national and international program designed to assist outdoor enthusiasts with their decisions about how to reduce their impacts on the land, based on 7 educational / ethical components.

Migrate- (my-grate) *verb*. To pass from one region or climate to another usually on a regular schedule for food or to raise young.

National Park- *noun*. An area of special scenic, historical, or scientific importance set aside and maintained by a national government.

Naturalist- *noun*. A person who specializes in natural history.

Public Land- *noun*. An area of land protected or conserved for use by all people.

Ranger- *noun*. A person in charge of the management, protection, and education of an area of land, such as a park or forest.

Wilderness- *noun*. An area in which few people live that is more or less in its natural state.



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The Alaska Public Lands Information Centers serve the public on behalf of these nine federal and state agencies which manage your public lands and resources in Alaska:

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- USDA Forest Service
- US Fish and Wildlife Service
- Bureau of Land Management
- US Geological Survey
- Alaska Department of Fish and Game
- Alaska Department of Natural Resources
- Alaska Department of Transportation & Public Facilities
- Alaska Department of Community and Economic Development

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