Bering Land Bridge National Preserve

JUNIOR RANGER BOOK

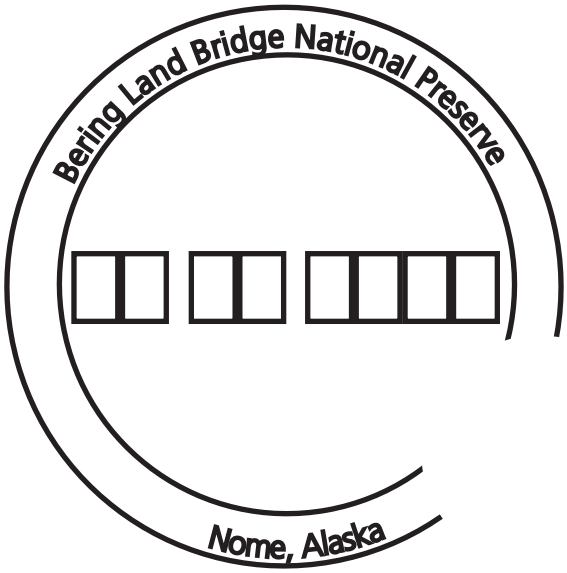
Want to Become a Junior Ranger?

As a Junior Ranger at Bering Land Bridge National Preserve you will have fun learning, discovering, and exploring the history, wildlife, and culture of the Preserve and the Seward Peninsula.

Instructions:

To receive a colorful patch and certificate honoring your achievements please complete this activity book according to your age. If you are between 6 – 9 years old complete at least 6 activities. If you are 10 years old and older complete at least 8 activities. Once you are done, send your booklet to **Bering Land Bridge National Preserve PO BOX 220 Nome, AK 99762.**

Look for interesting facts and at-home activities you can do from Ranger Mason at the bottom of each page.



Name:_____

If you are in Nome, check out the Bering Land Bridge Visitor Center and stamp your Jr. Ranger book in the small circle. If you aren't, create your own stamp! Fill in the squares with the date you finished your book in the larger circle.

Look for bonus activities at the bottom of the page! You may find fun ideas you can do with the rest of your family!

Index:

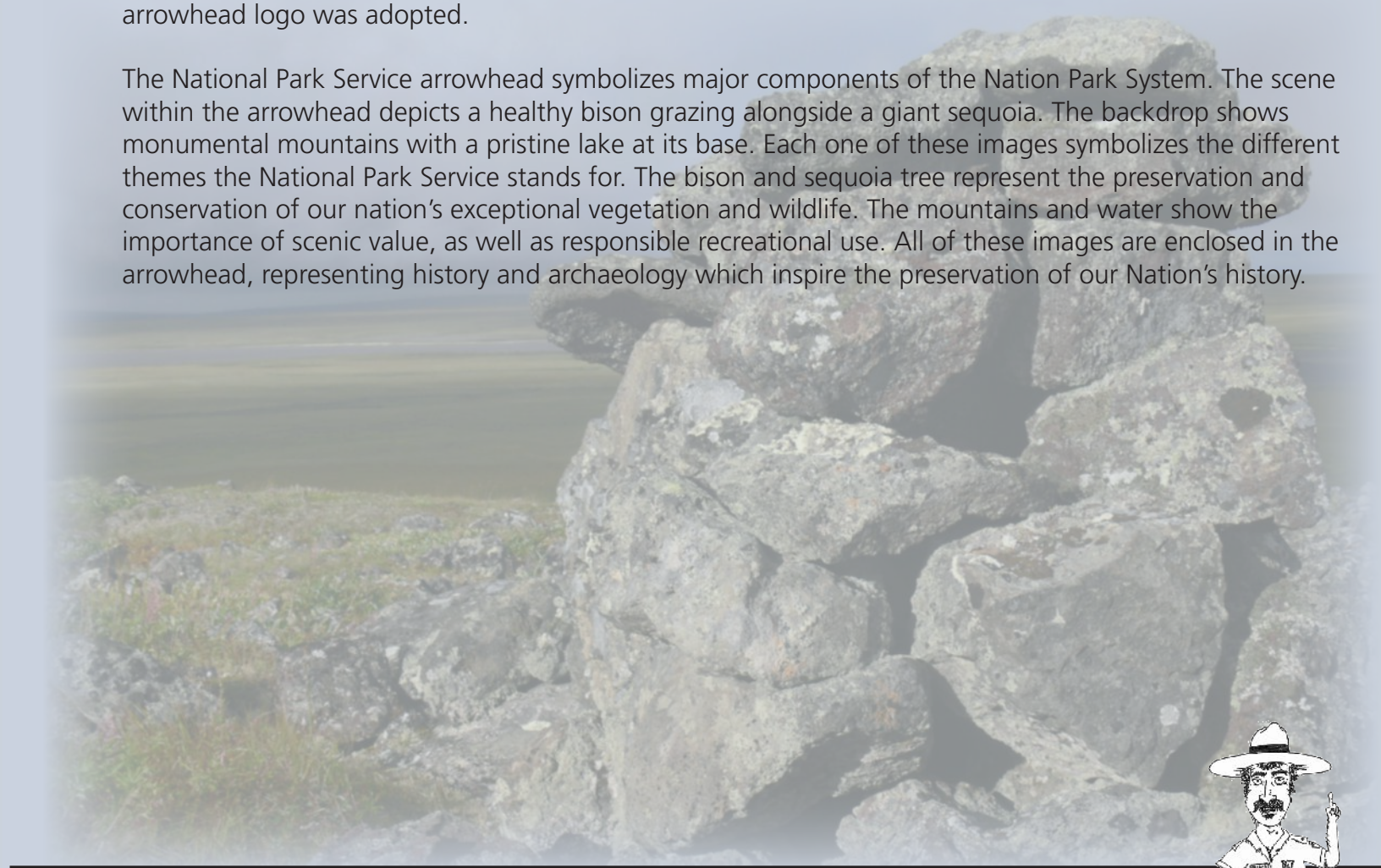
Check out the extra pages in the back of this booklet! Use your imagination to continue exploring, learning, and protecting!

Section 1: The National Park Service

"The service thus established shall promote and regulate the use of the Federal areas known as national parks .... which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."
THE ORGANIC ACT of 1916

What is an organization without a great logo?
Logos serve as tools for recognition. They are used to symbolize an organization or group and to help form a long-standing iconic association. A good logo is simple, meaningful, and shares an important message. Up until July 20, 1951 the National Park Service used a sequoia cone as its logo. However, the sequoia cone was retired because it was not symbolic of any greater message. Thus, the current arrowhead logo was adopted.

The National Park Service arrowhead symbolizes major components of the Nation Park System. The scene within the arrowhead depicts a healthy bison grazing alongside a giant sequoia. The backdrop shows monumental mountains with a pristine lake at its base. Each one of these images symbolizes the different themes the National Park Service stands for. The bison and sequoia tree represent the preservation and conservation of our nation's exceptional vegetation and wildlife. The mountains and water show the importance of scenic value, as well as responsible recreational use. All of these images are enclosed in the arrowhead, representing history and archaeology which inspire the preservation of our Nation's history.



The National Park Service was established on August 25, 1916 by President Woodrow Wilson.

Activity 1: National Park Service

Match each drawing to its correct meaning on the right. Then, draw the mountain, tree, lake, and bison in the right place on the arrowhead. Look at the arrowhead on the previous page to help you put things in the correct place!

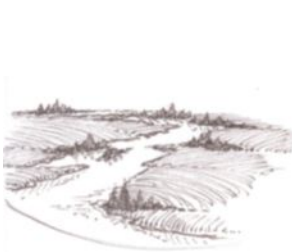
What do you think the arrowhead stands for?

stands for protecting wildlife

stands for protecting recreational values

stands for protecting plants

stands for protecting scenic values



The current arrowhead was created in 1952. It is the symbol of the National Park Service.

Activity 2: Trash into Treasure

Conservation is a very important aspect of the National Park Service mission. Conservation means protecting things found in nature, such as water, wildlife, and animals. Park rangers help protect natural and cultural resources.

When we conserve our resources, we have enough for today and the future!

One way we can conserve resources is to reuse old material by creating new uses for them. This process is called **recycling**.

All of the items below are things we use everyday. Instead of throwing them away, we can recycle. For example, we can turn a plastic milk jug into a bird feeder by cutting a hole in the front and filling it with bird seed.

Ranger Notebook

Directions:

Invent your own recycled creation! Label the things you used on the notebook.

What do you recycle at home?

Section 2: Archaeology and History

Archaeology is the study of past human history, cultures, and civilizations. Archaeologists play a very important task in understanding Beringia's role in the story of human migration. One of the bigger questions they ask is, "How, when, and why did people arrive to the Americas?" Archaeologists look for clues that help support their hypothesis by looking at things people have left behind. The things that people leave behind are called artifacts, and this can include stones tools, carvings, or other pieces of artwork. Artifacts are dated to get a better picture of when people lived in a certain area. Artifacts can also be compared to other archaeological sites to get a sense of how technology traveled throughout the land and through time.

Studying artifacts is only part of an archaeologists' job. They work with other scientists to get a better picture of what was happening. Archaeologists also work with geneticists. Geneticists are scientists who study DNA found in human remains. Our DNA can give us clues about our ancestry and our family tree – a family tree that goes back several generations! Archaeologists also work with geologists. Geologists study past climates and the history of the planet. Like detectives, archaeologists collect clues from a number of different sources to piece together the past.

Once archaeologists have enough pieces of the puzzle, they can make a timeline of events in a specific area.

NPS Photo

Bonus Activity!

Archaeologists learn about people by finding artifacts. Make a time capsule of your "artifacts".

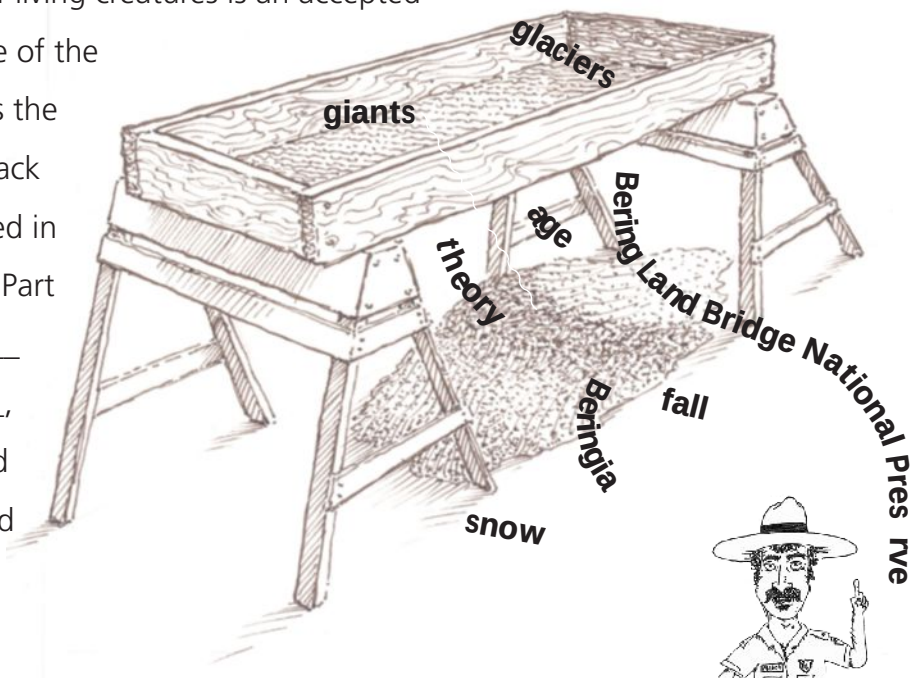
Activity 3: A Journey Back in Time

Archaeologists often act as detectives. They use their findings to fill in the blanks in history and understand life as it was thousands of years ago. Use your own detective skills to complete the story about Bering Land Bridge. Fill in the blanks with the words from the dig site below.

About 21,000 years ago the Earth was a very cold place. Precipitation fell in form of _____ and never melted. As years passed, layers of snow piled on top of each other and eventually turned into massive sheets of ice. These giant ice sheets are called _____ and some are still around today. However, they were not the only _____ to roam the Earth. Woolly mammoths, wild horses, and steppe bison were only a few of the gargantuan creatures that lived amongst humans. Humans chased these animals and hunted them for food. This span of time is known as the Pleistocene Epoch – The Last _____ – and it only ended about 10,000 years ago.

During this time, the growing ice sheets trapped large quantities of the Earth's water causing the sea levels to _____. The Bering Strait, only 200- 300 feet deep, became exposed, thus creating the sub-continent of Beringia and the Bering Land Bridge. This land bridge, nearly 1,000 miles from north to south, connected the Eurasia continent to Alaska.

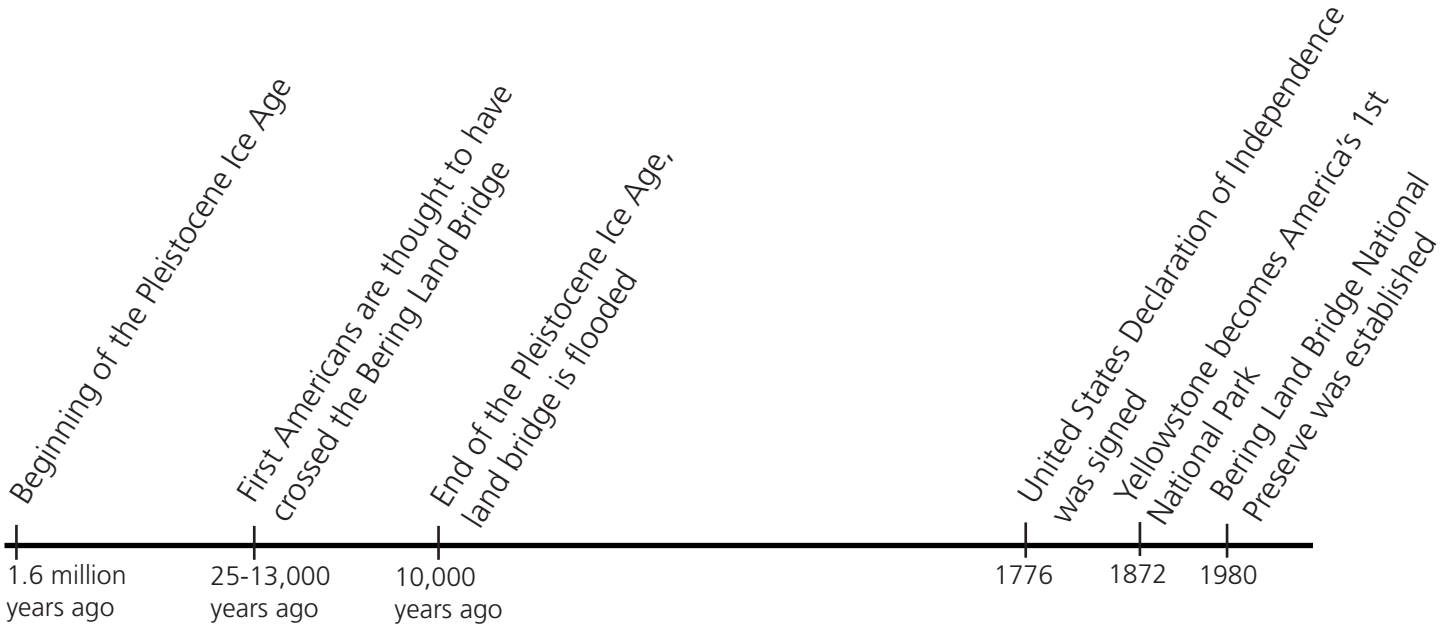
Large land mammals, people and plants populated _____ and migrated from Russia to North America. This migration of living creatures is an accepted _____that explains how some of the earliest people came to North America. As the ice age ended, pieces of glaciers turned back into water and the land bridge was covered in water. However, not all of it was covered. Part of this historic gateway is still here. The ___ _____, located in western Alaska, was established in 1980 to preserve a piece of Beringia and its history.



The word "Beringia" is another name for the Bering Land Bridge. It is named after explorer Vitus Bering.

Activity 4: Record Your History!

Create a timeline about your life! Write down important events that have happened in your life, like the year you met your best friend, when you started going to school, or a family vacation. You could also include other important events to give people a perspective of what else happened during your lifetime. Adding photographs can give a glimpse into the past!



Directions: Archaeologists make timelines and other charts to keep track of history. Above is a sample timeline. Create your own timeline by adding important dates in your family's history!

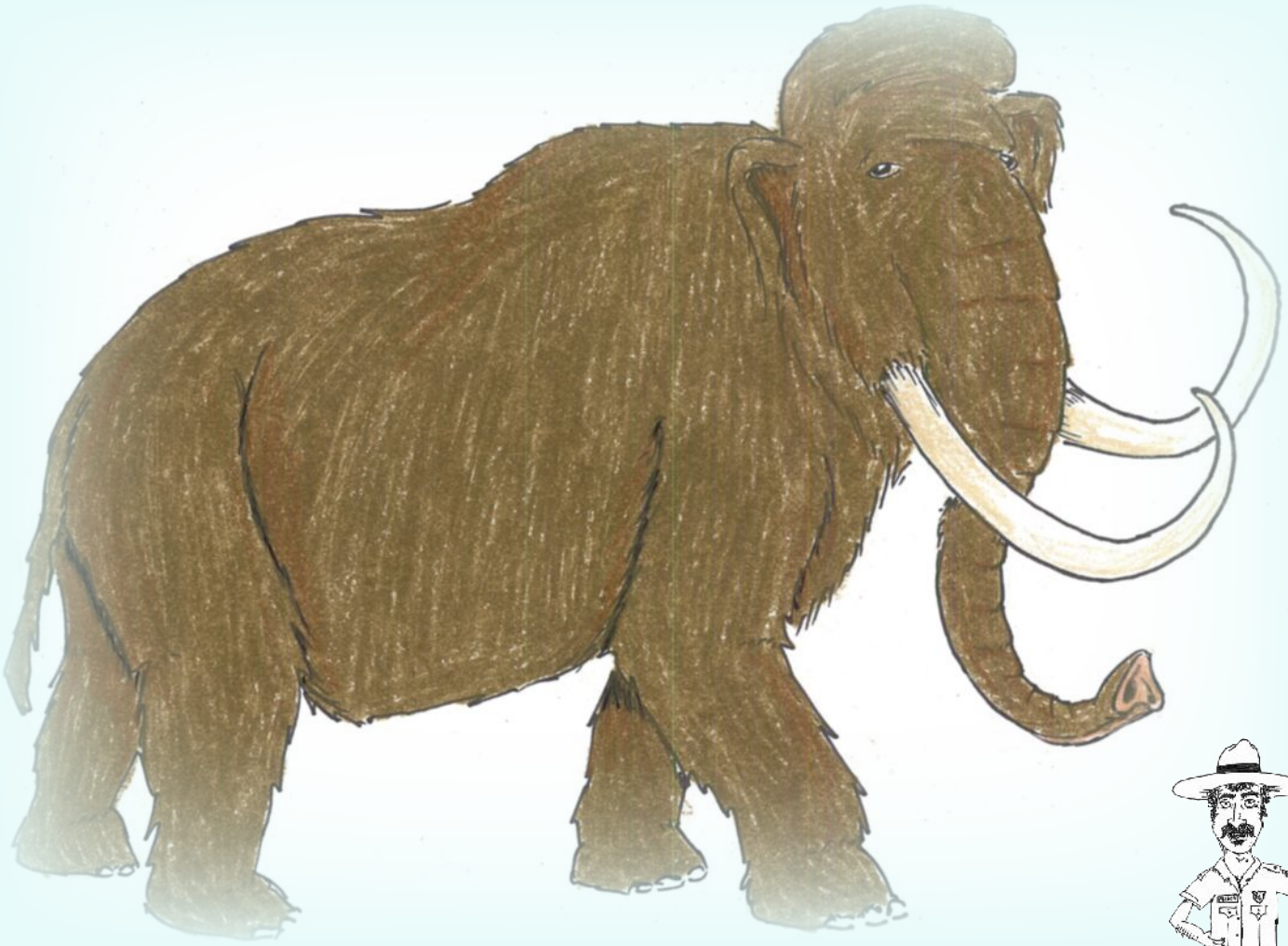
Bonus Activity!

Like a timeline, a journal records history. Charles Darwin kept a journal of his travels, Do you?

Section 3: The Ice Age Animals

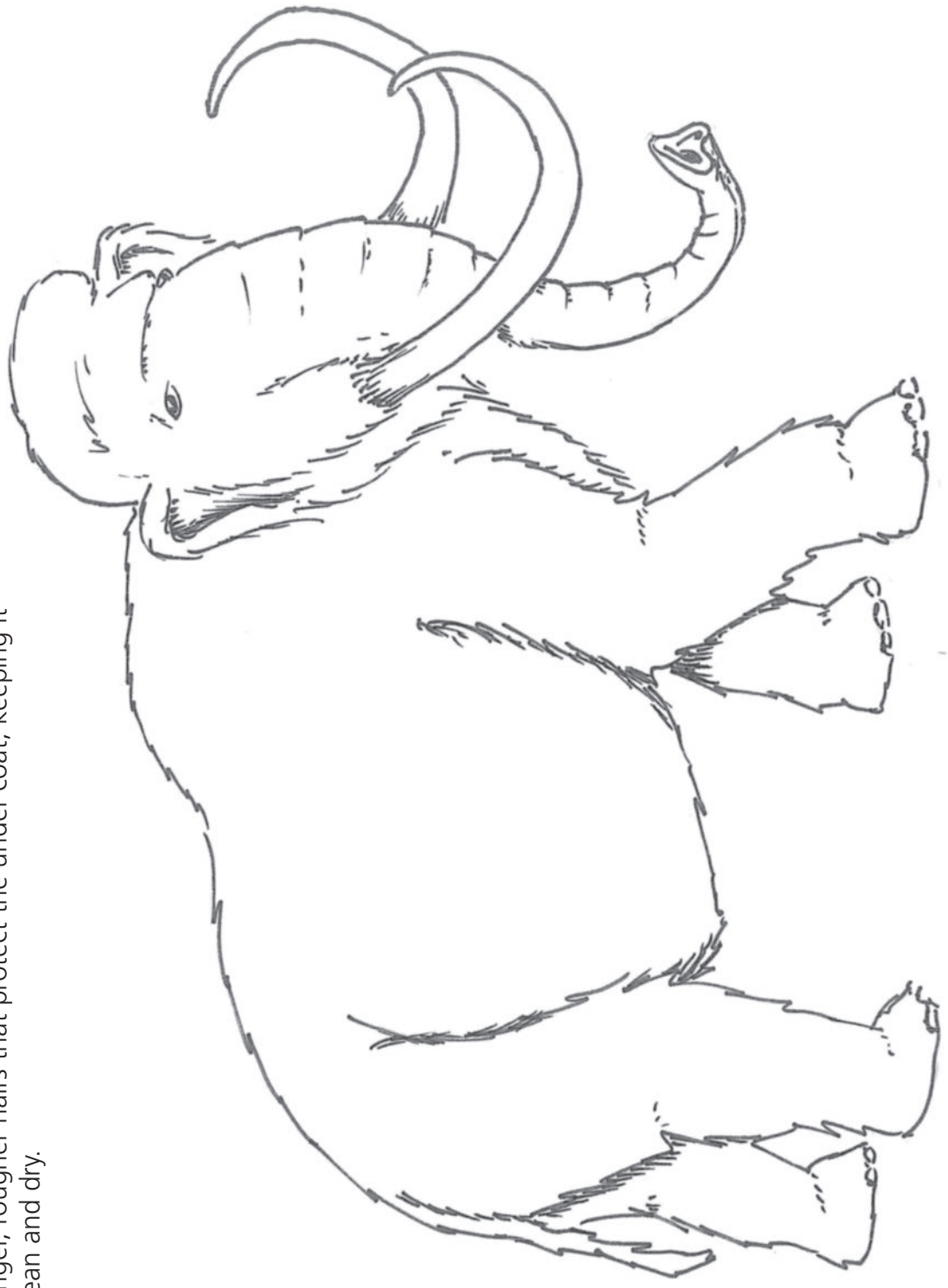
Between 10,000 and 25,000 years ago, a large amount of the world's water was locked up in giant ice sheets called glaciers. This was the last great ice advance during the Pleistocene Ice Age known as the Wisconsin Glacial Period. These great glaciers could be up to 2 miles high. With water frozen on land as glaciers, the water level dropped dramatically. When the water levels dropped new land was exposed forming a land bridge that connected Asia to North America. The Bering Land Bridge also known as "Beringia" was a passage for animals, plants, and humans to migrate between Asia and the Americas. Near the end of the Ice Age, when the climate was becoming warmer and the glaciers melted, the land bridge was flooded by water once again. Many species could not adapt to this rapidly changing climate and became extinct. Other species moved in and used the resources and space available.

Bering Land Bridge National Preserve was established to protect a remnant of the Bering Land Bridge for study and education. You can only get there on foot, small aircraft, or snowmachine. An opportunity to visit such a remote and wild landscape makes it easy to imagine what it was like during the last Ice Age.



The Bering Land Bridge was not a thin strip of land connecting Asia to America; it was over 1,000 miles wide from north to south.

Activity 5: A Woolly Woolly Mammoth



Woolly mammoths had a two layer coat. The under coat was fuzzy and woolly for insulation. The outer coat was made of longer, rougher hairs that protect the under coat, keeping it clean and dry.

Directions: Make a warm two layer coat for your woolly, woolly mammoth. You can use cotton balls, yarn, fake fur, felt, or two different colors of crayon. Make the under coat warm and woolly and the outer coat long and stringy. Have fun and be creative!

Bonus Activity!

Make a Woolly Mammoth puppet with a brown paper bag, googley eyes, & crayons.

Activity 6: Modern Ice Age Wildlife

Did you know that muskoxen survived the ice age? You can still see herds of them in Bering Land Bridge National Preserve, the Seward Peninsula and other arctic areas.

Muskoxen have many adaptations for surviving the sub-arctic cold; one is by warming the cold air they breathe before it enters their lungs. They do this with a long, spiraling nasal cavity that warms the air as it travels through their nasal passages. When we breathe in air, it travels through our nose cavity before reaching our lungs. As air travels, it is in contact with the warm surface of our nasal cavity. This warms the air before it is drawn into our lungs.

Directions:

You will need three cardboard toilet paper tubes, scissors, yarn or some other string, and a yardstick.

1. Cut one cardboard tube along a straight line. Then cut the second roll in a spiral along the tube. Put the third tube aside.

2. The tubes you cut represent two different lengths of nasal passages. Will one be longer than the other? Or will they be the same?_____

3. Lay your first tube out flat. Use your string to measure the length of your tube, from one end to the other. Record it here _____ Now do the same with the second spiral-cut tube. Measure the length and record it here. _____

4. Which one is longer?_____

5. Of the two nasal passages, which one produces the warmest air when it reaches the lungs? _____. That is right! The one cut in a spiral would provide more surface area for the warm air to travel through before reaching the lungs.

6. Build a better muskox nose -- Use your third tube and cut it on a spiral and try to make the spiral as long as you can. Challenge your friends and family to make a longer spiral than yours.

Muskoxen have a two layer coat. The outer layer is made of long guard hairs that protect the under layer called qiviut, one of the warmest fibers on earth!

Section 4: Wildlife Adaptations

Adaptations are special skills or characteristics that help an animal survive in its environment. All animals have physical and behavioral adaptations to help them survive. They use these adaptations to find food, communicate, stay warm, and reproduce.

Cold Weather Adaptations

Caribou - Caribou have an uncommon fur coat. Each hair is hollow and holds warm air close to the caribou's body. The warm air creates a comfortable barrier around the caribou much the same way your sleeping bag keeps you warm, even though it is filled with fluffy insulation that allows air in.

Brown Bears - During the cold winter months, brown bears go into a state of hibernation. Bears will spend 5 to 7.5 months snoozing away in their den. During hibernation the bear's body temperature, heart rate, and metabolic rate drops drastically, reducing the need for food and water.

Arctic Ground Squirrel - Arctic ground squirrels hibernate underground for up to eight months! During the warm months when seeds are plentiful, ground squirrels will spend their time eating, raising young, and watching for predators, but mostly eating. During the summer feeding frenzy, they will almost double in weight. Once winter comes, they sleep in a burrow on a moss covered bed. During this time their body temperature drops below 32˚F. Brr!!!!

Camouflage is an Adaptation

Willow Ptarmigan- The willow ptarmigan molts all year long, constantly changing its plumage to fit into its environment. In the winter, they are all white. As the snow melts in the spring, they are brown and white, just like the ground. In the summer, they are brown to blend in with the willow bushes, ground cover, and rocks spread across the tundra.

Snowshoe Hare- The snowshoe hare adapts similarly. In the winter it has a fluffy snow white coat which covers the hare from head to toe. Even its feet are blanketed to keep the hare warm during the long winters. When the snow starts to melt the snowshoe hare begins to shed this thick white coat. During the spring, they begin ten weeks of shedding. By summer time the snowshoe hare is all brown.

NPSPhoto/Roy Wood

Bonus Activity!

Visit our arctic animal adaptation page at www.nps.gov/bela/learn/kidsyouth to learn more!

Activity 7: Arctic Adaptations

Directions: Create your own arctic animal with adaptations that help it survive in Bering Land Bridge National Preserve. Use the notebook page below to draw your animal.

Ranger Notebook

There are over 170 known species of birds that migrate to the Seward Peninsula every spring!

Activity 8: Wildlife Bingo

Land Mammal _____	Ducks, Geese & Swans _____	Land Bird _____	Fish/ Amphibian _____	Land Mammal _____
Fish/ Amphibian _____	Shorebird _____	Owls _____	Land Mammal _____	Fish/ Amphibian _____
Owls _____	Land Bird _____	Land Mammal Human _____	Birds of Prey _____	Land Bird _____
Crustacean _____	Shorebird _____	Marine Mammal _____	Land Bird _____	Ducks, Geese & Swans _____
Seabird _____	Land Mammal _____	Ducks, Geese & Swans _____	Crustacean _____	Birds of Prey _____

Directions: Use the card above to play a game of wildlife bingo! Fill in the name of the animal in the box that describes what type of animal they are. The center box is done for you! Once you get five marked boxes in a row (across, down or diagonally) you win! See if you can win without counting the same species twice!

Bonus Activity!

Make a field guide to the plants and animals in your backyard. Share it with visiting friends and family.

Section 5: Climate Change

Did you know that during the last major Ice Age, 10,000 to 25,000 years ago, the world was only 7°F colder than it is today? Even though this does not seem like much, the climate was different enough to cover most of North America in a huge glacier. This was the time of the Bering Land Bridge!

Weather is constantly changing. Today it might be sunny and tomorrow it might rain. Weather changes everyday and is measured everyday. A really cold day or even a week does not mean climate change isn't happening and a really hot day doesn't mean it is. We need to look at the bigger picture, decades, not just a day or even a couple of years.

Climate changes too. But unlike changes in the weather, climate change occurs over many years. Scientists measure climate in groups of 30 years because it usually takes a long time to notice a difference. Climate determines the types of plants and animals that live in specific habitats around the world. For example, wildlife living in the arctic tundra have adaptations to allow them to survive in a cold climate. If the climate gets warmer, forests may start to grow over the tundra, changing the habitat and the animals that live there. Plants and animals will have to adapt in order to survive.

Looking at the big picture. Climate has changed several times throughout the history of the earth, getting warmer and getting colder. We are currently in the warmest period ever experienced on earth. Are humans the cause of this climate change? We are certainly a part of it. How much we are a part of it will be measured in the future. So we need to start trying to help now. Checkout this website with your parents: www.nature.nps.gov/climatechange/overview.cfm

Since 2017, the lowest arctic ice extents on record are 2012, 2016, and 2017. Arctic sea ice is often referred to as the planet's air conditioner, reflecting solar energy back into space and cooling the earth

Scientists have discovered that global temperatures have increased by one degree Fahrenheit on average over the last one hundred years.

Activity 9: Shrinking Ice, Swelling Sea

What is climate change?

The Earth is getting warmer. Over the past 100 years Earth's temperature rose by about 1°F. Scientists predict Earth will continue to warm by about 2–6°F over the next 100 years. It may not sound like much, but think about this: during the Last Ice Age, Earth was only 7°F cooler than it is today and large sheets of ice called glaciers covered large parts of North America! The warming of Earth's climate is called global warming.

What is happening to the sea ice?

A warming climate is causing the sea ice to melt. Sea ice acts like a mirror and reflects the sun's rays. Once the ice melts, the dark colored ocean absorbs more heat and melts more ice. As ice melts it adds water to the ocean. This melting sea ice is causing the sea levels to rise.

Directions: Get a clear glass and fill it half full with water. Add salt until it stops dissolving. Add a little bit more water to dissolve the left over salt. Add three freshwater ice cubes to the glass. Use a piece of tape or a sticky note to mark the water level in the glass. Leave the glass out on the counter until the ice cubes melt. Once the cubes have melted, measure the level again.

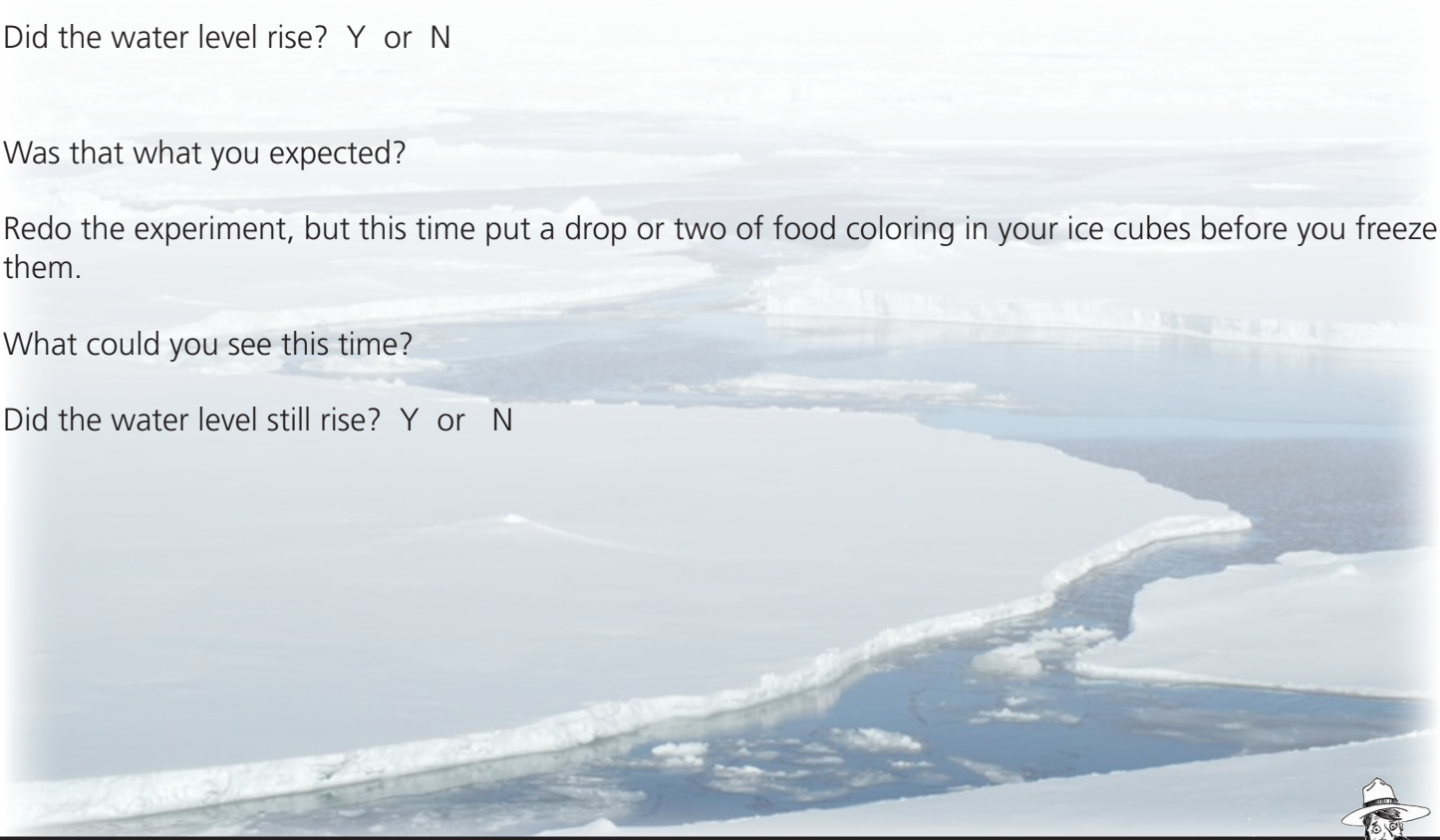
Did the water level rise? Y or N

Was that what you expected?

Redo the experiment, but this time put a drop or two of food coloring in your ice cubes before you freeze them.

What could you see this time?

Did the water level still rise? Y or N



Bonus Activity!

What is your carbon footprint? Find carbon shrinking tips at www.carbonfootprint.com

Activity 10: You're Part of the Solution!

Did you know we play a huge role in what happens to our climate in the future? You can help make a difference.

Scientists believe the pollutants we send into the air, called greenhouse gases, are making our planet warmer. As our planet gets warmer, our climate is actually changing. Bering Land Bridge National Preserve and other arctic areas are good places to study climate change. The habitats are fragile and are altered very easily by climate change. Warmer temperatures are melting sea ice. The loss of sea ice has caused the shoreline in the village of Shishmaref to erode very quickly.

This house fell down after a storm that eroded the beach out from under it. Thicker permafrost and earlier sea ice use to protect the beach from such dramatic erosion.

Make a list of at least three things you and your family do to help fight climate change.

1.

2.

3.

Make a pledge to begin doing two more things to fight climate change at home or school:

1.

2.

Your Signature _____

Your Parent's Signature _____

If every American home replaced 1 light bulb with an energy-efficient one, enough energy would be saved to light all the homes in Alaska for four years!

Section 6: Plants

Many of the plants found in and around Bering Land Bridge National Preserve have cool ways of adapting to the world around them.

Woolly Lousewort- The woolly lousewort thrives in the arctic! It is the first plant you see right after the snow melts. It is covered with small white hairs that look like wool. These hairs help trap heat from the sun, much like a greenhouse. The stored heat keeps the plant warm even when temperatures are too cold for other plants.

Alaskan Poppy- The Alaskan poppy has adapted to the short growing season by maximizing the amount of sun it receives. The flowers on this plant are able to track the sun moving across the sky. Scientists call this action heliotropism. By following the sun, the plant is able to soak up more sunlight than other tundra plants. These warm conditions help attract insects that pollinate the plant.

Alpine Azalea- The alpine azalea is a flowering plant that grows in places where most things do not grow. This hardy plant makes its home on cold mountains. It keeps low to the ground to protect itself from wind and uses the snow as an insulating shelter. The alpine azalea is an evergreen, meaning it never loses its leaves. As the snow melts, this plant is ahead of the game! It does not have to push out of the ground like other plants. It can start photosynthesizing as soon as it's no longer covered in snow. Alpine Azalea is so successful it is found across northern mountain ranges, around most of North America, and Greenland.

Bonus Activity!

Collect fallen leaves in Autumn and use them to make a picture or collage.

Activity 11: Plant Rubbing

Directions: Go outside and find a plant for each category below. When you find one, use the back cover and place it over a leaf or another interesting part of the plant and rub the top of the paper with a crayon or pencil. This is called a **rubbing**. When you are done, you will have a very cool image!

What to Find:

☐ **Grass:** Remember, "grasses have joints"! They differ from sedges by having jointed stems. They also have long, slender leaves and grain like seeds. Not only can animals eat grasses as food, but some grasses are used by people to make baskets.

☐ **Shrub:** Shrubs have woody stems that branch out close to the ground, like willows. Small animals like arctic hares sleep under willows. Why do you think they choose to sleep there instead of the open tundra?

☐ **Trees:** Trees have one main trunk sticking up from the ground and smaller leafy branches higher up. Try rubbing the bark. The nearest forest to Nome is in Council, 70 miles away. Why do you think there are no trees in the tundra?

☐ **Flowers:** These plants have soft stems and flowers that bloom in the warmer seasons. Because these plants are soft, they are not very good for rubbing. Try stamping or pressing the plant on your page instead!

You can find over 400 species of plants on the Seward Peninsula. Some are endemic, that means they can't be found anywhere else in the world!

Activity 12: Everything is Symbiotic

In addition to all these living things, there is another important type of "organism" found in Bering Land Bridge National Preserve. Caribou depend on it for food in the winter time. Do you know what it is? It's lichen! Lichens cover the ground across most of the tundra. This type of lichen looks like coral. They are only a few inches high and come in a variety of shapes and colors. It was previously believed that lichen was made up of two different organisms: an algae and a lichen. However, recent studies show there could be three – a yeast! All three organisms work together and benefit from each other. This teamwork is known as a symbiotic relationship.

The lichen to the right is commonly called reindeer lichen. Do you have lichen where you live?_____

There is a symbiotic relationship you can find in your own backyard! It is the symbiotic relationship between bees and flowers.

Directions: In the bee's stripes write down how the bee benefits from this relationship. On the flower's petals write how the flower benefits from the bee.

Bonus Activity!

If you picked plants to rub, recycle them and use them to make natural plant dyes.

Section 7: Be A Survivor!

You never know when an outdoor emergency may occur. In that case it is always good to be prepared. In Alaska, many people spend time outdoors. Be it hunting, at fish camp, or out riding a snowmobile. It is important to be ready for any emergency situation. Simple actions can be taken to prepare yourself for any outdoor activity. Remember, when going into the great outdoors tell someone where you are going, bring water, a snack, proper clothes, and a first aid kit. Never go off on your own!

Seven Steps to Wilderness Survival:

1. Recognition: "Oh no I'm in trouble!"

The first and most important step is recognizing that you are in an emergency. If you don't do something about it you are in deep trouble.

2. Inventory: "What do I have that I can use?"

Here you should S.T.O.P. - sit, think, observe and plan your next move.

3. Shelter: "I need to stay warm!"

Build a shelter to stay out of the weather.

4. Signals: "I need help!"

You should let people know you need help by using a whistle to call for help, building a signal fire or reflecting sunlight in a mirror.

5. Water: "I must avoid dehydration!"

Find a clean water source. Make sure to boil it or purify it.

6. Food: "I must eat safe food!"

Remember, if you don't know it, don't eat it!

7. Play: "Keep a positive attitude"

Keep yourself busy. Think like a survivor!

Survival is 80 % attitude, 10 % equipment, and 10% skill to use the equipment! That means keep busy and remember that family & friends will be looking for you.

Activity 13: Getting Water

Most people can survive a week without food, but only three days or less without water.

Did You Know? Water can be obtained by placing clear plastic bags over the leafy branch of a non-poisonous bush or tree and tightly closing the bag's open end around the branch. Any holes in the bag must be sealed to prevent the loss of water vapor.

During photosynthesis plants lose water through a process called transpiration. A clear plastic bag sealed around a branch traps evaporating water and allows it to condense on the inside surface of the plastic bag. Gravity then causes the water to run to the lowest part of the bag. Water can be collected from the bag. Reseal it and the leaves will continue to produce water as the roots draw it from the ground and photosynthesis occurs.

Calculate how many bottles of water you need on a day hike.

A standard water bottle, like the one on the left, can hold 32 ounces. 32 ounces is one US quart. There are four quarts in a gallon.

How many water bottles would you need to bring with you if you are going on an all day hike in warm weather?

Let's figure it out.....

There are 128oz in a US Gallon, & 32oz in a US Quart. We will need to use division to solve this problem.

128 ÷ 32= _____ bottles.

Ask your parent's permission before trying these activities. Make it more fun and ask them to do it with you!

Bonus Activity!

Make a sleeping bag out of 2 garbage bags & stuff leaves or grass between the bags for insulation.

Activity 14: Survivor's Scramble

What should you have in a survival situation outside? This word scramble will help you figure out what you should pack in case of an emergency!

SALCIPT BAARGGE ABSG	4
POER	
SILGNA MORRIR	5
HILTSWE	8
LANMUIMU ILFO	2
HCSATME	
CEKTOP FIKNE	7
NIIDECEM	
OCMSPAS	1
HILASHGTFL	6
FODO	
WARTE	3
BERA SYARP	
MRWA TOELSCH	9

Directions:

Unscramble each of the clue words above. It is a checklist of things you will need if there is an outdoor emergency. Copy the letters in the numbered cells to other cells with the same number to figure out the answer to the right.

What should you do with all of these items?

Put them in your:

			V		V			
1	2	3		4		5	6	

7	8	9

Make a checklist of important items your family needs when going on a trip. Keep it with your camping gear or luggage so you're prepared!

Section 8: Tradition and Culture

The indigenous people of this area are the Inupiaq. Inupiaq means "the real people". They are Alaskan Natives who live along the Northwest coast of Alaska. Their rich cultural practices and area knowledge allow them to thrive in the arctic and sub-arctic regions of Alaska. Subsistence is a big component of their culture. It means to live off the land. Hunting, fishing, berry picking, egg collecting, picking sea greens and gathering medicinal plants are common subsistence activities.

Plants are used as food, medicine and dyes. Commonly eaten foods are delicious blueberries, cranberries, salmon berries, tender willow shoots, fireweed, and sea lettuce to name a few. Many species of animals are eaten and the fur, bones, and tusks are used for clothing, shoes, drums, and jewelry. The tundra is "the store outside your door".

Look at the photo below. Do you notice the caribou hide hanging from the wooden rack? Racks like these are often used to dry meat, fish, and hides during seasonal subsistence activities.

NPS Photo / Lia Nydes

Bonus Activity!

Make a scrapbook of traditions that are important to your family. Add pictures and mementos.

Activity 15: Subsistence Living

In Northwest Alaska, Inupiaq people have relied on wildlife for food, clothing, tools, and shelter. Today they still practice these traditional **subsistence** activities.

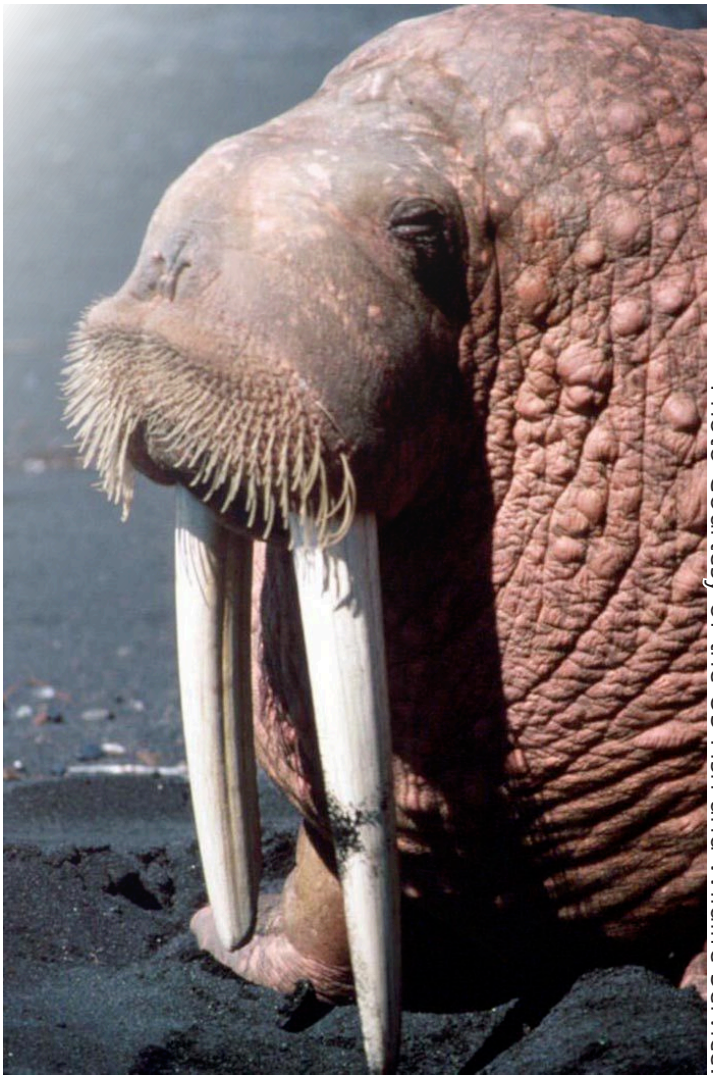


Photo Courtesy of the US Fish and Wildlife Service.

Directions:

Walruses are very important for subsistence hunters. Every part of the walrus can be used. The images below are items the Inupiaq people traditionally make from a walrus. Draw lines to match the traditional items to the similar things we use today.

Hamburger

Power Drill

Raincoat

Jewelry

Wooden Boat

Gut Skin Parka

Ivory Earring

Walrus Coke (Steak)

Skin Kayak

Bow Drill

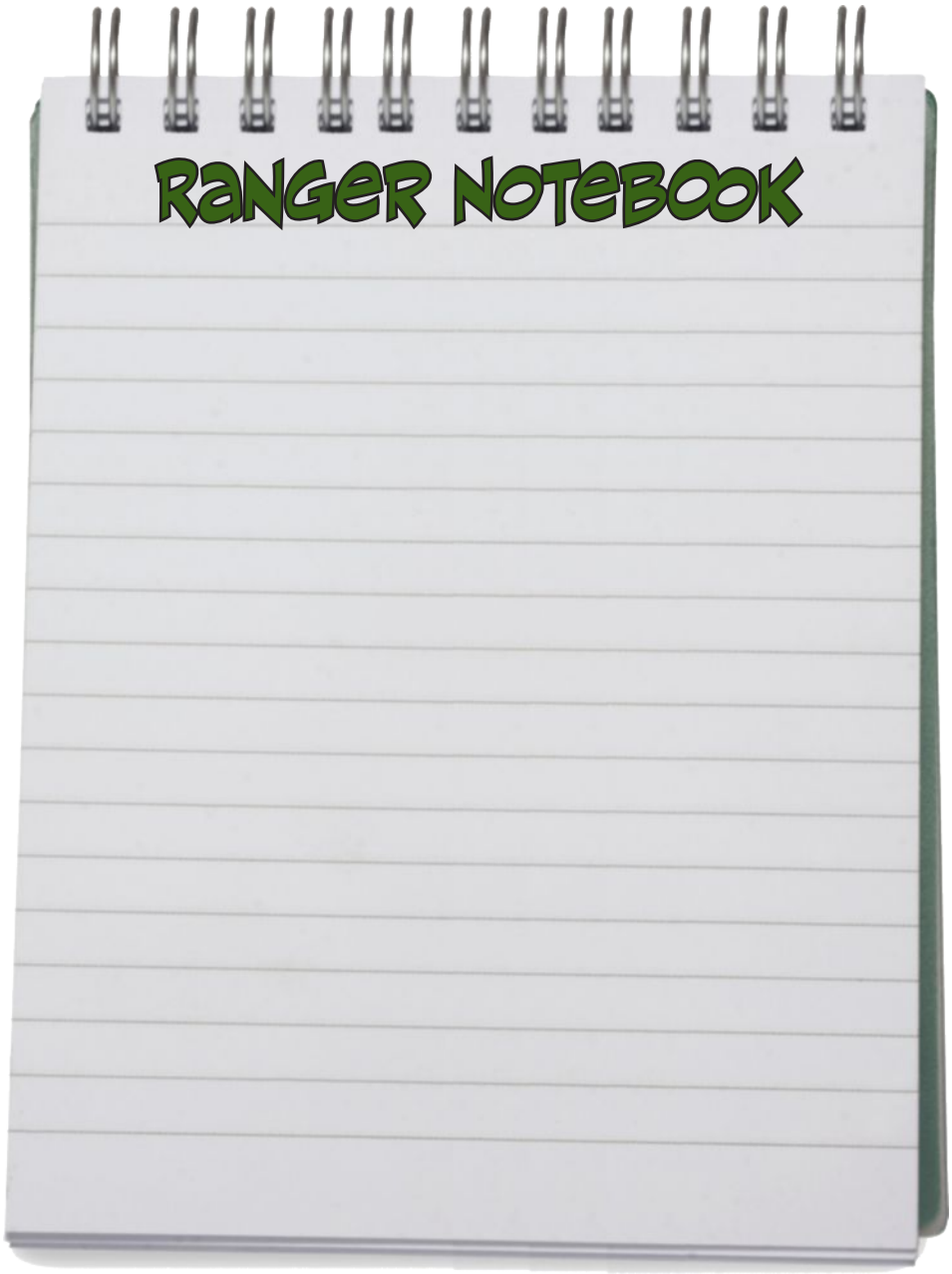
Bering Land Bridge National Preserve covers 2.7 million acres. That's roughly the size of the state of Tennessee!

Activity 16: Inupiaq Language

For thousands of years, the Inupiaq people have shared their history through storytelling. This is called an **oral tradition**.

Directions: Use the notebook page below to write your own story about your experience as a Junior Ranger. Try to use a few of the Inupiaq words you learned. Then tell the story to your friends and family.

agnasralluq	-animal
quliaqtuaq	-story
akutuqpak	-plant
ilisaqtuq	-learn
pakiktu	-explore
natigna	-tundra
tuvlagaa	-protect
taikuu	-thank you



Project Jukebox
Listen to oral stories of Alaska elders living on the Seward Peninsula.
http://jukebox.uaf.edu/site7/comnome

Bonus Activity!

Start your own oral tradition with your family. Make short videos of special events and vacations.

Section 9: More Fun Stuff!

Being a Junior Ranger doesn't end when you leave the park or finish your Junior Ranger Book. You can be a Junior Ranger full time! You can do this by continuing to learn more about the natural and cultural history of your family, community or other natural areas and then sharing your knowledge with your friends and family.

Directions: Make a Junior Ranger Kit out of an old shoebox, lunch box, reusable cloth bag or whatever you have that you can recycle and use again. Your kit can have a lot of different things in it, but here are some basics:

View Finder - Use an old toilet paper roll and decorate the outside with stickers, pictures, or drawings of wildlife. The tube lets you focus on a small area when you are looking for wildlife. You may see things you might have overlooked.

A Notebook - Use scrap paper to make a notebook. Make the cover out of cardboard to protect your field notes, drawings and photos. Design a title and image for your cover.

Wildlife ID Card- Make ID cards for the five most common plants and animals in your area. You can share these with friends and family to teach them about the plants and animals you know.

Clipboard- Make your own clipboard by cutting a piece of 9 X 12 inch cardboard. Get a large rubber band and put it around the middle. It will help you hold your paper in place. The cardboard gives you a flat surface to write on. Ask your parents for help cutting the cardboard!

You might also want to have a ruler, bug boxes, a hand lens, colored pencils, field guides, map, water, lunch, a camera and other items to help you explore.

Never go out exploring without getting permission from your parents first!

Learn more about other Junior Ranger programs by visiting www.nps.gov/kids/jrrangers

Activity 17: Compare & Contrast

Ever country, every state, every city, town, village you visit has a little something different. It could be the weather, the types of houses people live in, the length of the school year, or the wildlife you would find there.

Directions: Answer the questions below! Compare where you live to Nome, AK. Bering Land Bridge National Preserve's visitor center is in Nome and so are most of the park rangers! You can look up some of the answers online . **Always ask your parents permission before you go online!**

Nome, Alaska

Today's high temperature_____

What was the weather like?_____

_____

Does Nome have tundra?_____

List three common plants_____

_____

_____

Nome is on what ocean?_____

Does it snow in Nome? _____

How many hours of daylight today?_____

Do oceans, lake, and rivers freeze in winter ?_____

Where do you live?_____

Today's high temperature_____

What was the weather like ?_____

_____

Does your town have tundra?_____

List three common plants _____

_____

_____

Do you live near the ocean?_____

Does it snow where you live?_____

How many hours of daylight today?_____

Do oceans, lakes, and rivers freeze in winter?___

How is Nome, AK most like the town where you live? _____

_____

The town of Nome, AK from an airplane, the Bering Sea or Pacific Ocean is to the right.

The record high temperature in AK is 100F at Fort Yukon in 1915. The record low is -80F at Prospect Creek in 1971.

Activity 18: That's Hilarious, But True

Posters, brochures, television ads all are ways we can share conservation messages. Another way you can do that is to create a comic that has a moral or lesson. It could be about littering, wildlife safety, recycling or anything you choose.

Directions: Create a conservation superhero and create a comic strip about him or her. Make sure the comic strip has a lesson to teach about conservation. Use the boxes below to develop your comic strip or make a new one on a separate piece of paper and paste it into your book.

A lot of people use humor to share important information with others. Humor can get people's attention and make them care about your story.

Do Your Plant Rubbing Here

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Take the Junior Ranger Pledge Below:

"As a Junior Ranger, I promise to explore the natural world around me; to learn about the history of the places I visit; to challenge myself and others to protect the plants and animals that share the earth with us."