

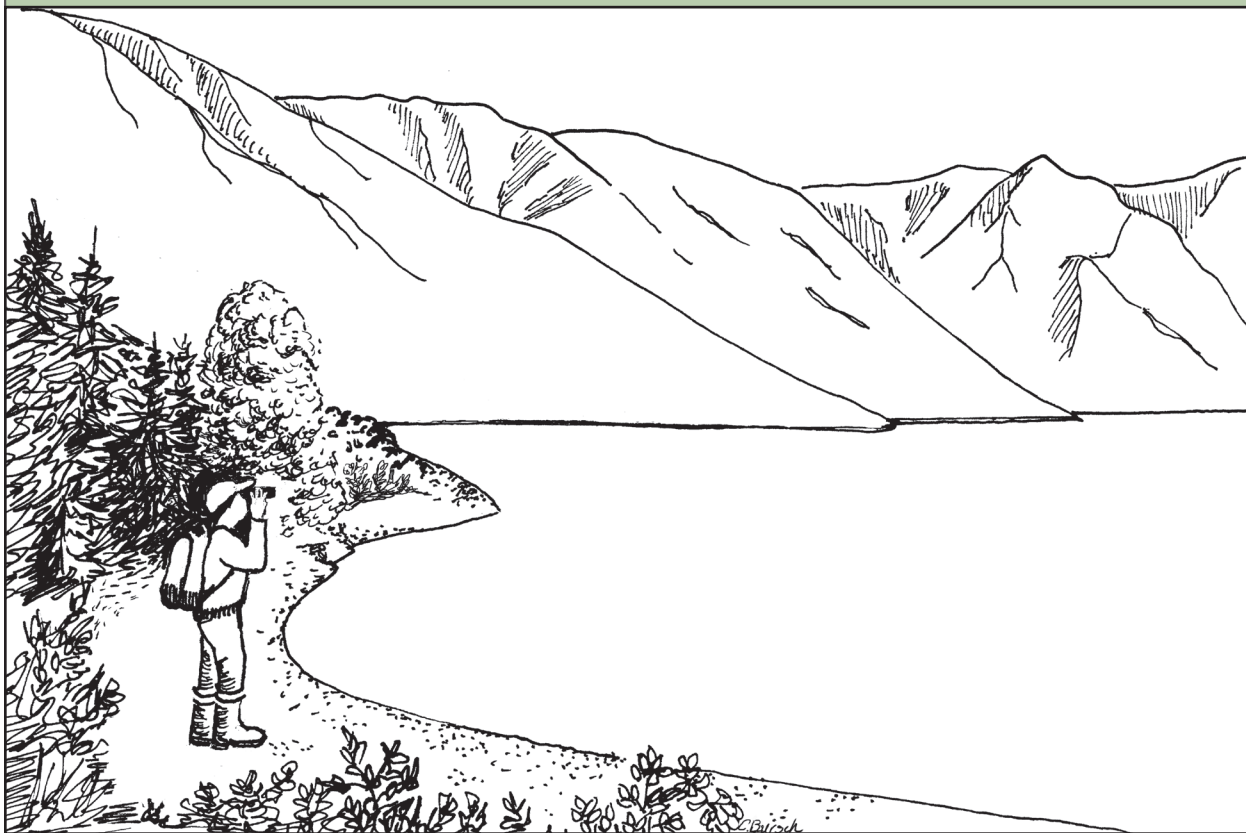
Junior Ranger Activity Book

National Park Service
U.S. Department of the Interior

Lake Clark National Park and Preserve



Lake Clark National Park and Preserve: **Junior Ranger Journey**



Explore, Learn, Protect: Be A Junior Ranger

Welcome!

Lake Clark National Park and Preserve is a gathering place of mountains, glaciers, rivers, wildlife and people.

The Lake Clark area has been home to the Inland Dena'ina Athabascan people for hundreds of years. Look for Dena'ina words throughout this book. Dena'ina use different sounds for the letters in their language so don't worry if you can't pronounce their words.

Yil is the Dena'ina word for a journey of one day.* Follow our day's journey by using the map on the facing page. The numbered ranger hats mark the places we'll visit. Look for a numbered ranger hat at the top of the left-hand pages to help you find each location on the map.



* Many Dena'ina words use a barred L like *yil*. The barred L makes a “thl” sound. Place your tongue on the roof of your mouth right behind your front teeth. As you start to say the “th” sound let the air blow out on both sides of tongue then add the “L”. Most of the Dena'ina words used in this book are from the Inland Dena'ina dialect. Refer to the Dena'ina Topical Dictionary by Jim Kari, published by the Alaska Native Language Center in 2007 for more information on the Dena'ina language.

Map the Journey!

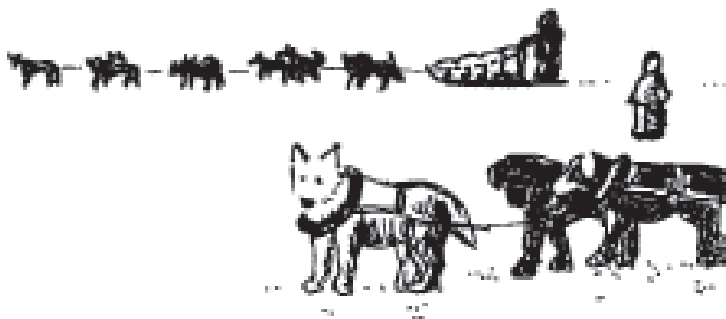


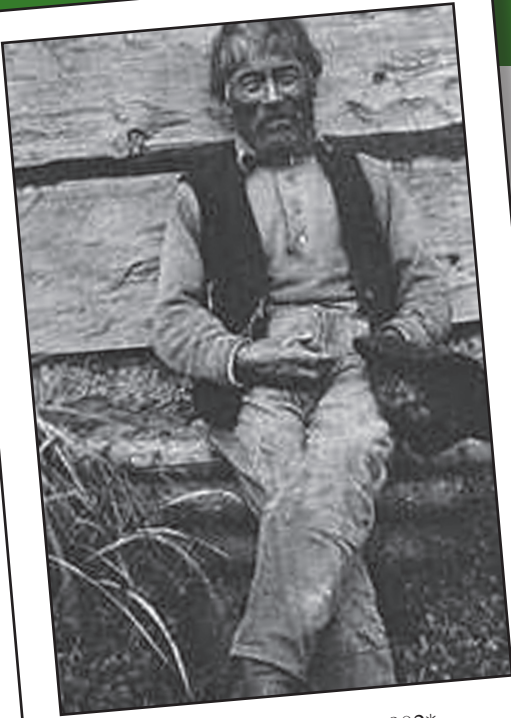
A Lake with Two Names



Lake Clark got its present name when A.B. Schanz, a New York newspaperman, named the lake after John W. Clark, a well-respected trader in southwest Alaska. Schanz's newspaper sent him to get exciting stories about the new U.S. territory - Alaska. Schanz and Clark made a very exciting dogsled trip to the lake from Bristol Bay in the winter of 1891. Deep snow, frostbite and starving sled dogs left their group in a serious survival situation by the time they reached the lake. A Dena'ina man, out checking his traps, rescued the men and their dogs. He took them to his village, *Qizhjah*, where they were welcomed and fed.

Qizhjah Vena is the Dena'ina name for Lake Clark. *Qizhjah* means, "people gathered." *Vena* means "lake." The trapper's ancestors had been gathering on the lake in *Qizhjah* village (now called Kijik) for nearly 1,000 years. They had been walking across glaciers through Lake Clark Pass to trade with people in Cook Inlet for hundreds of years before they met John Clark. Many of the modern things Clark and Schanz saw in the village - store-bought clothing, teakettles, a cook stove, and furniture, came from the Dena'ina's extensive trading activities.





Oldest man in *Qizhje*, 1902*



John W. Clark, 1893**



*The Field Museum, A107936

**Library of Congress

We're Going to Fly...



Our journey begins on southcentral Alaska's Kenai Peninsula. Although you can see the park from the Sterling Highway, you can't drive to it. There are no roads to Lake Clark National Park and Preserve. Most people get to the park in an airplane. We're going to fly across Cook Inlet and through the mountains in a Cessna 180.

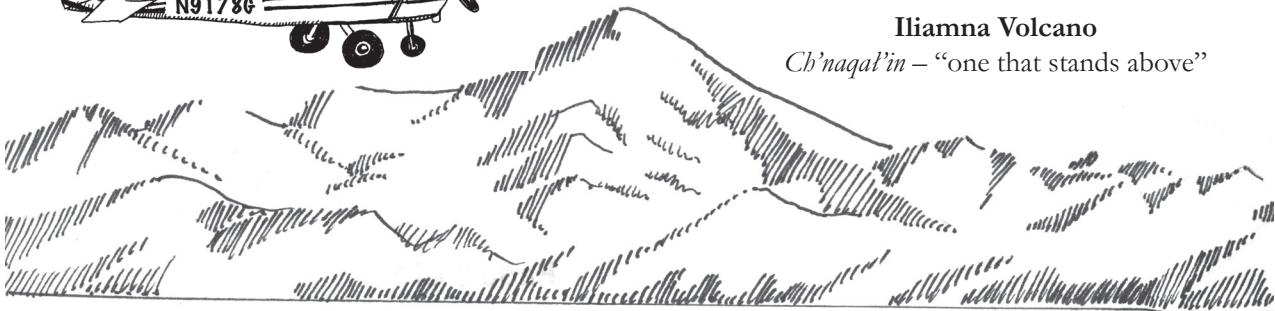
The view most people have of Lake Clark National Park from the Kenai Peninsula, is only the coastal part of over 4 million acres of park and preserve. The beauty of the glacier-covered volcanoes along the coast is one of the reasons Congress made this place a National Park. *Viq'idaq'eni* is the Dena'ina word for volcano. It means "one burning inside."

Nunejehi is the Dena'ina word for airplane.
It means "one that flies."



Iliamna Volcano

Ch'naqal'in – "one that stands above"



Cook Inlet

Tikabtnu – "big water river"

...Across Cook Inlet!

Use the numbers below to fill in the blanks. *Answers on page 24.*

60 5,000 23 1990 10,000 1989

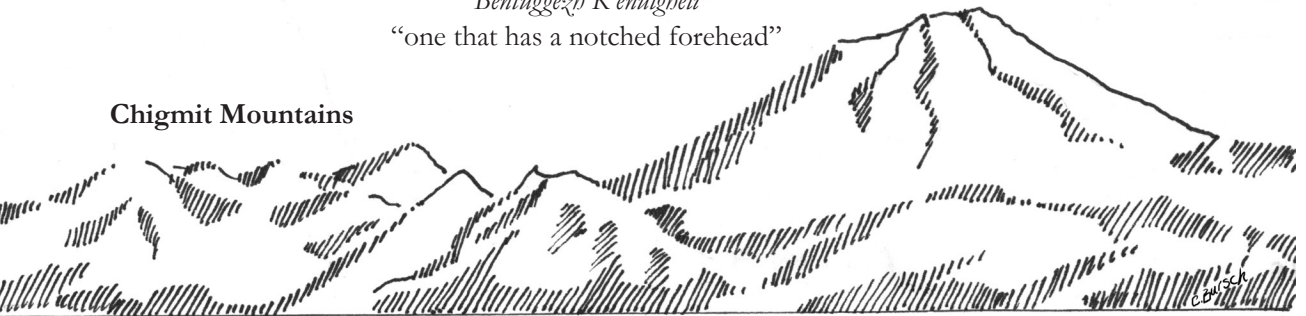
The park lies along the Ring of Fire, a zone of earthquakes and volcanoes circling the Pacific Ocean. Both Iliamna and Redoubt volcanoes are over _____ - feet high! The Chigmit Mountains, in between the volcanoes, are only half as high, averaging about _____ feet. Redoubt Volcano erupted ___ times between December ____ and April _____. Iliamna Volcano has not erupted in recorded history, but ___ miles under the volcanoes, magma is building up pressure for a future eruption!

Redoubt Volcano

Bentuggezh K'emulgheli

“one that has a notched forehead”

Chigmit Mountains

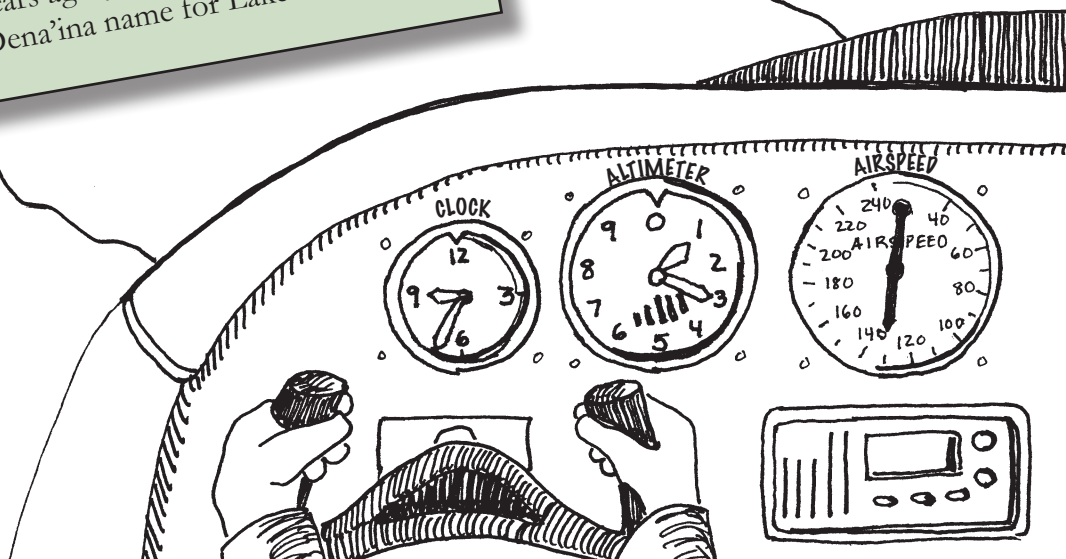


Mountains Gather Here

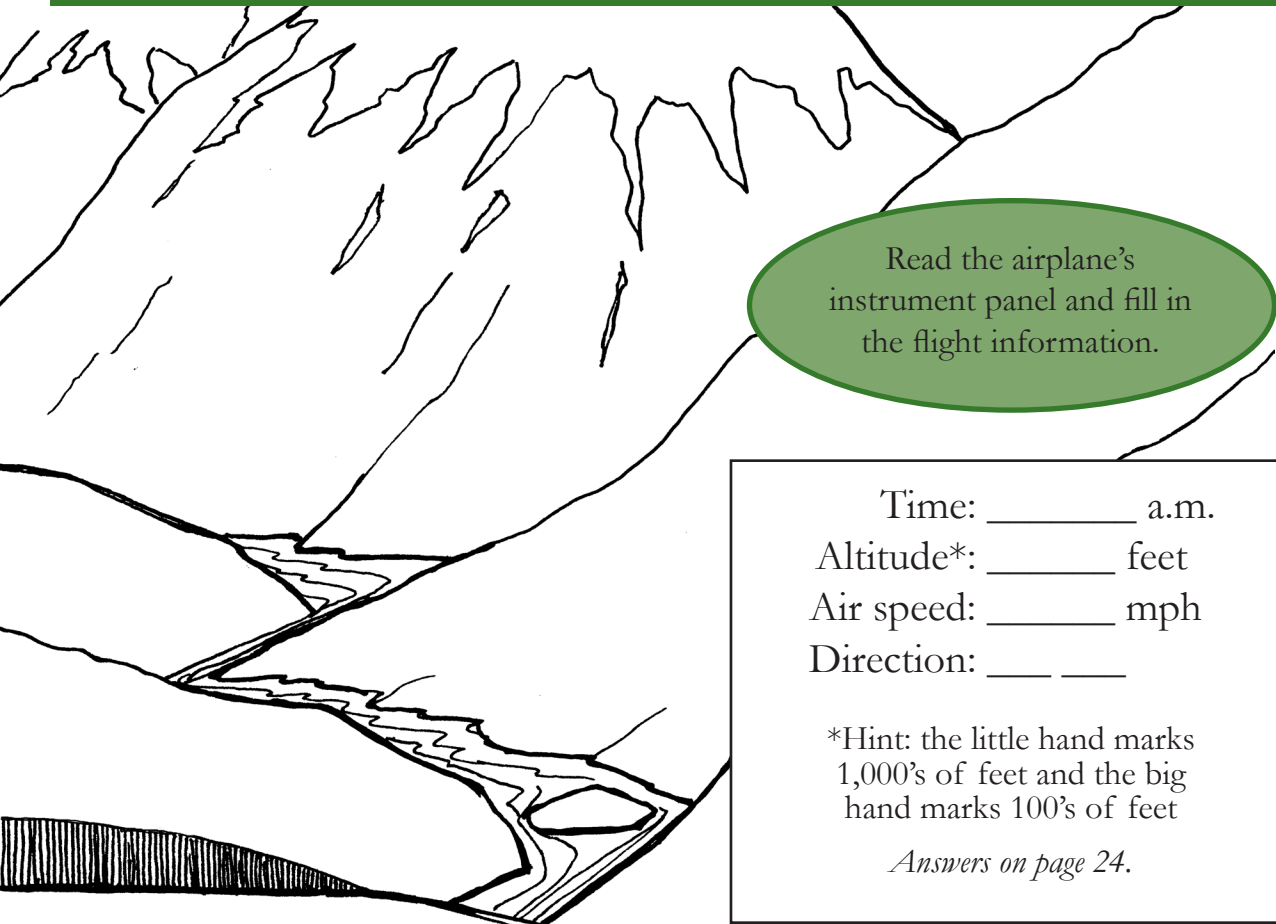


Iliamna and Redoubt volcanoes and the Chigmit Mountains are part of the Aleutian mountain range. The Aleutian Range meets the Alaska Range in Lake Clark National Park and Preserve. Both ranges form a mountain barrier that separates the park's coast from the park's interior, influencing the climate and ecosystems of the park. *Dghili* is the Dena'ina word for mountain.

We're going to cross the mountains by flying through Lake Clark Pass. The pass formed along an earthquake fault that is still active today. Glaciers carved the pass tens of thousands of years ago. *Qizhjeh Vena Tustes* is the Dena'ina name for Lake Clark Pass.



Lake Clark Pass

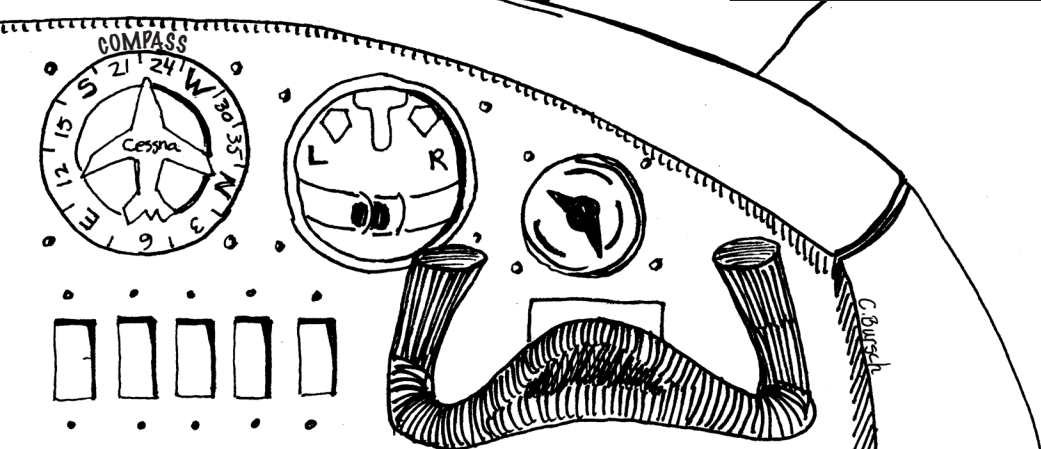


Read the airplane's instrument panel and fill in the flight information.

Time: _____ a.m.
Altitude*: _____ feet
Air speed: _____ mph
Direction: _____

*Hint: the little hand marks 1,000's of feet and the big hand marks 100's of feet

Answers on page 24.

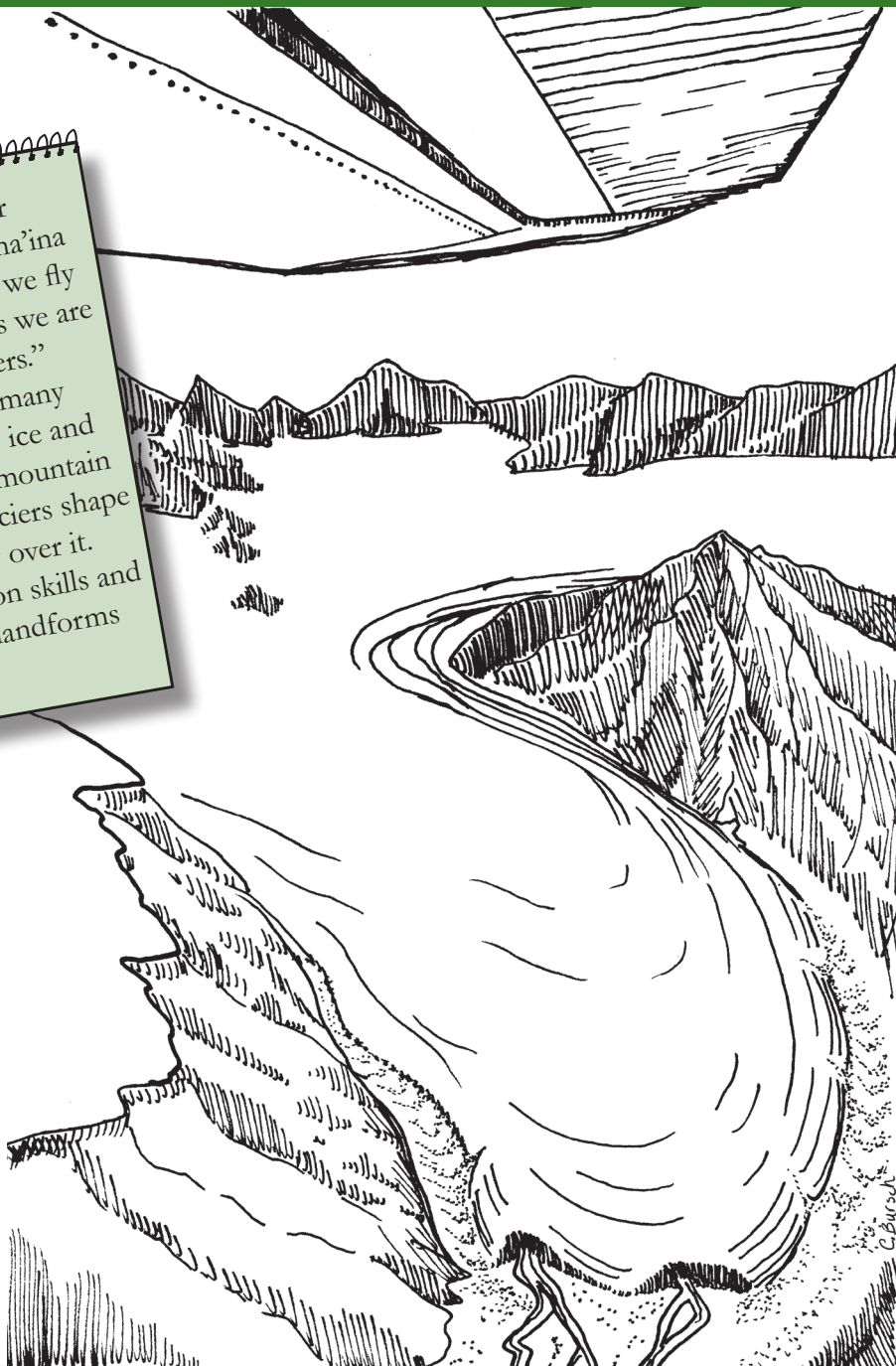


Glaciers Gather Here



See the big white glacier under the wing? The Dena'ina word for glacier is *li*. As we fly through Lake Clark Pass we are *tiliteh* "among the glaciers."

Glaciers form when many layers of snow turn to ice and start flowing down a mountain like rivers of ice. Glaciers shape the land as they flow over it. Test your observation skills and identify the glacier landforms on the facing page.

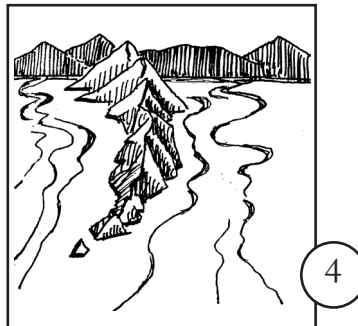
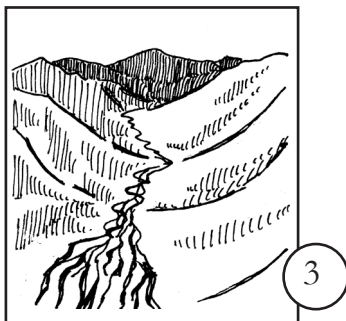
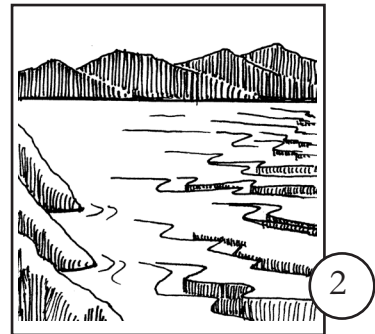
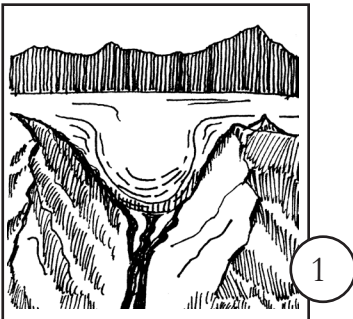


Glaciers Shape the Land

Read the name and the description of the glacier landform. Look at the pictures of glacier landforms. Match the number of the picture with its written description.

Answers on page 24.

- U-shaped valley** - A valley carved by a glacier.
- Hanging glacier** - A glacier hanging off the side of a mountain.
- Arête** - Sharp-peaked ridge of rock that has resisted the glacier.
- Crevasses** - Deep cracks in the surface of a glacier.



Rivers Gather Here

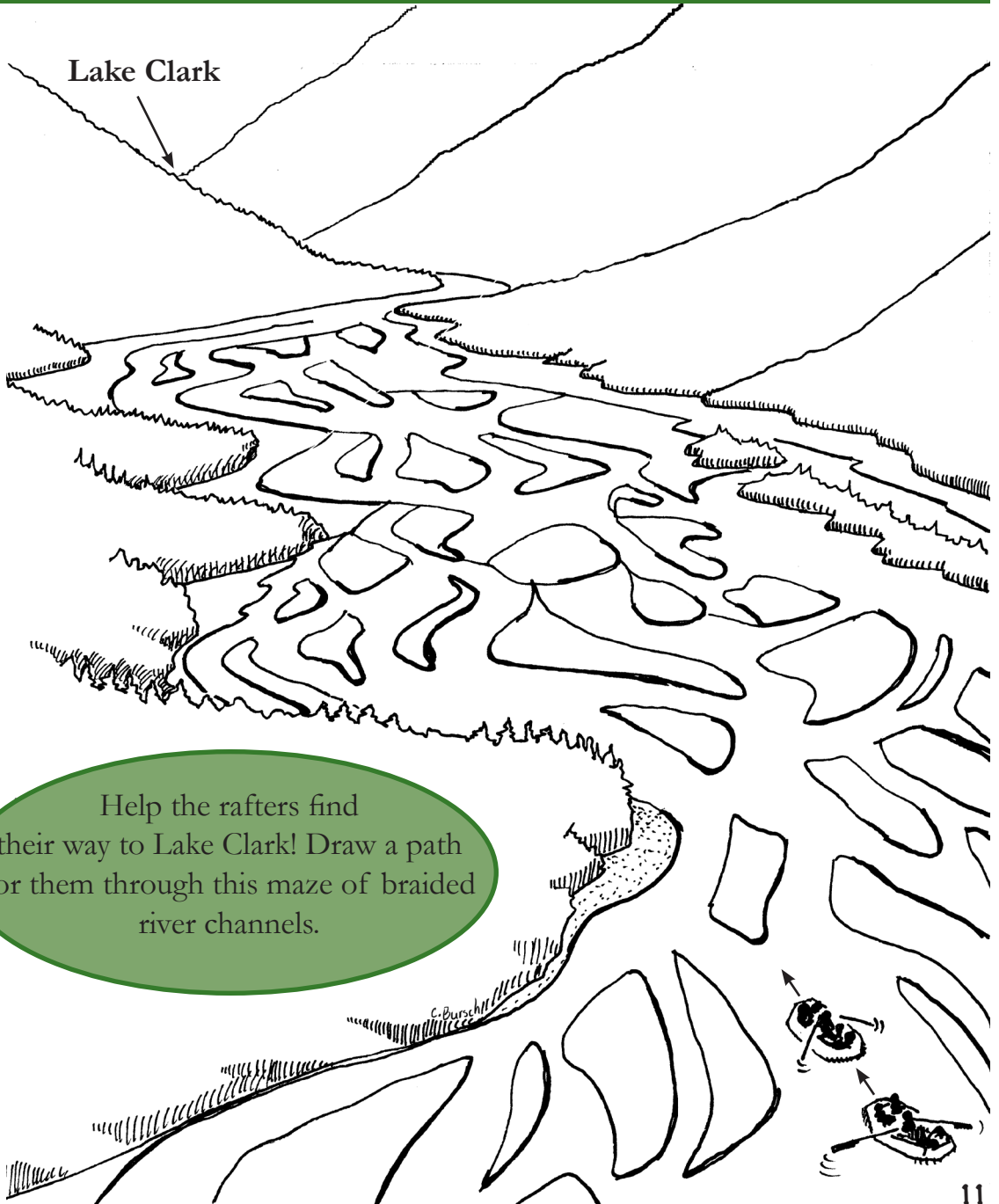


Glaciers melt into over 6,000 miles of rivers in Lake Clark National Park and Preserve. You can recognize a glacial river by its many braided channels of milky water. The river below us is the Tlikakila River. It begins at the summit of Lake Clark Pass and flows southwest into Lake Clark. Visitors raft the park's wild rivers for fun and adventure.

Tlikakila Fast Facts

- 150 glaciers feed the Tlikakila River!
- Tlikakila (*Liq'a Qilabtnu* in Dena'ina) means "salmon swim river."
- Salmon spawn in the Tlikakila late in the fall when the glaciers slow their melting and the water runs clear.

Raft A Wild River!



Help the rafters find their way to Lake Clark! Draw a path for them through this maze of braided river channels.

Carved by a Glacier!



As we fly out the southwest end of Lake Clark Pass we get our first view of Lake Clark / *Qizhjeb Vena*. Glaciers carved Lake Clark about 15,000 years ago. Geologists estimate the glacier ice at that time was 2,400 feet deep!



Lake Clark
Qizhjeb Vena

Lake Clark Fast Facts

- Lake Clark is 40 miles long and 1 to 4 miles wide.
- Lake Clark is 1,000 feet deep at its deepest point.
- Kijik Mountain is 3,351 feet high.

Where Was the Ice?

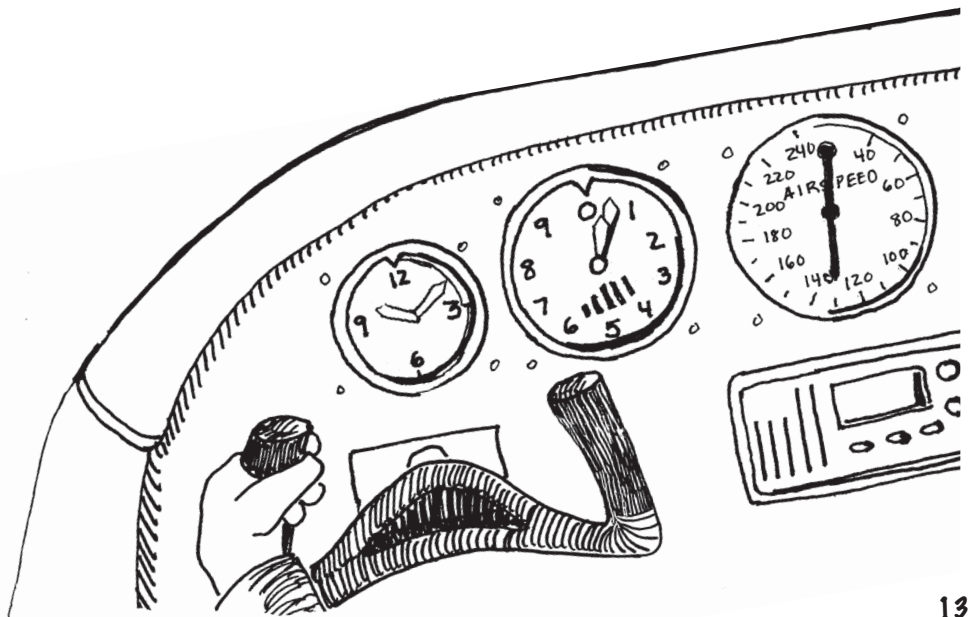
Using the facts on the facing page and your math skills, draw a line across this picture to estimate where you think the glacier ice was 15,000 years ago. *Our estimated answer on page 24.*

Kijik Mountain

K'unust'in

“one that stands apart”

3,351 feet



Salmon Gather Here



Who am I?

I was born in Lake Clark and lived there for about two years. Then I went for a long swim, down to the end of Lake Clark, down the Newhalen River into Iliamna Lake, down the Kvichak River, into Bristol Bay and out to the ocean.

I came back to Lake Clark with hundreds of thousands of others like me after two or three years in the ocean. We came back to find mates and spawn. We die soon after spawning. Our decomposing bodies feed the plants and animals that live in and near Lake Clark.

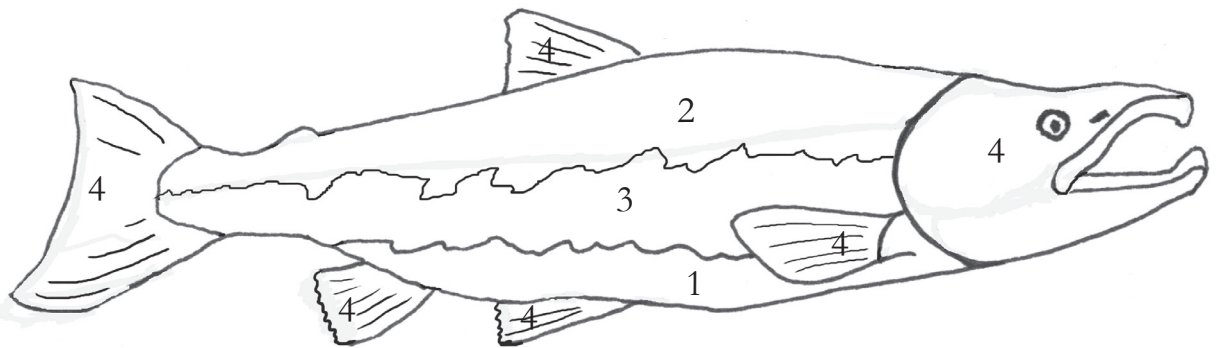
Unscramble the letters below to learn which kind of salmon I am.

I am a EYKOCSS _____ salmon!

(Hint: My name rhymes with "Popeye.")

Dena'ina call me *hey liqa* or "winter salmon."

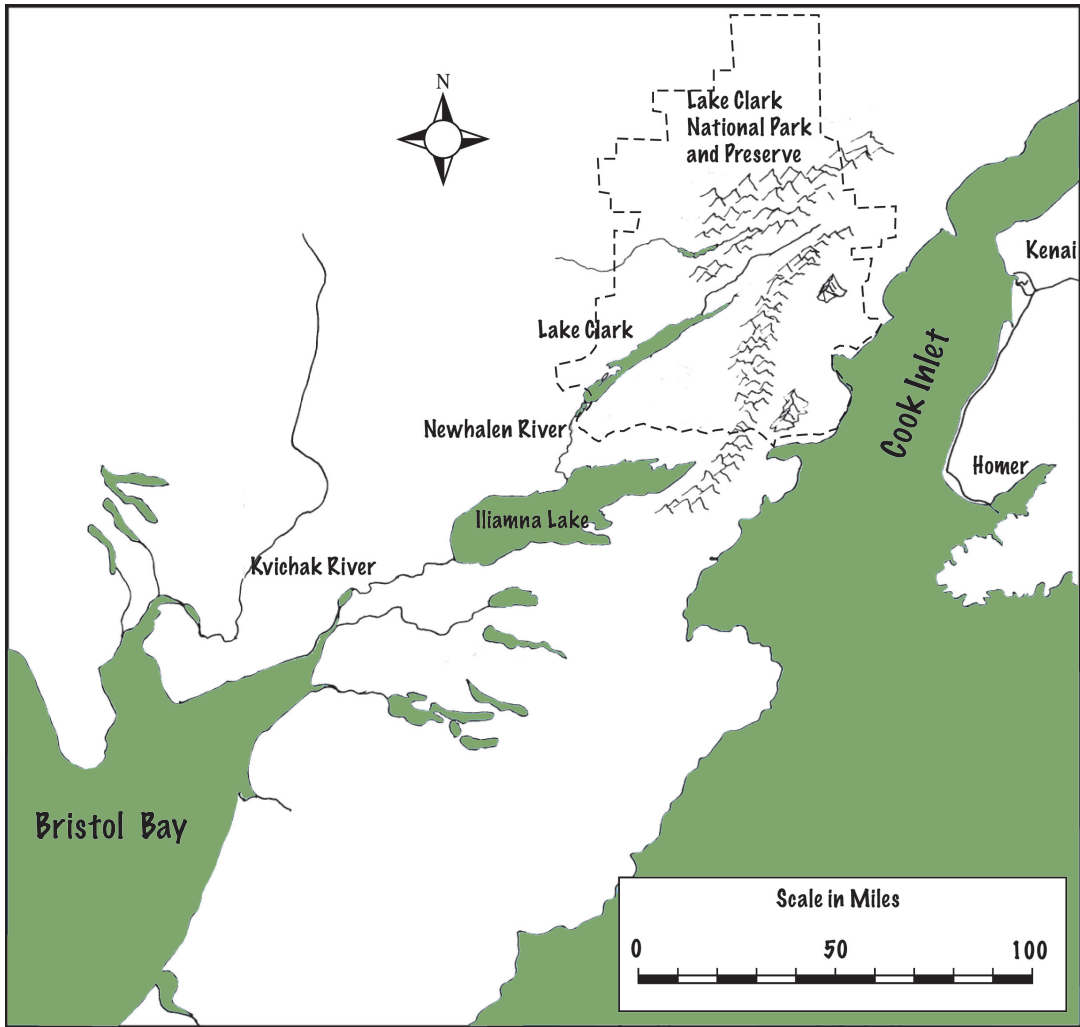
Answer on page 24.



Color me in my spawning colors:

1. white 2. red 3. pink 4. green

Trace My Journey!



Dena'ina names for the lakes and rivers on my journey are:

Lake Clark	<i>Qizhjev Vena</i>	“people gathered lake”
Newhalen River	<i>Nughil Vetnu</i>	“current flows down stream”
Iliamna Lake	<i>Nila Vena</i>	“islands lake”
Kvichak River	<i>Nilan Q'estsiq'</i>	“islands outlet”

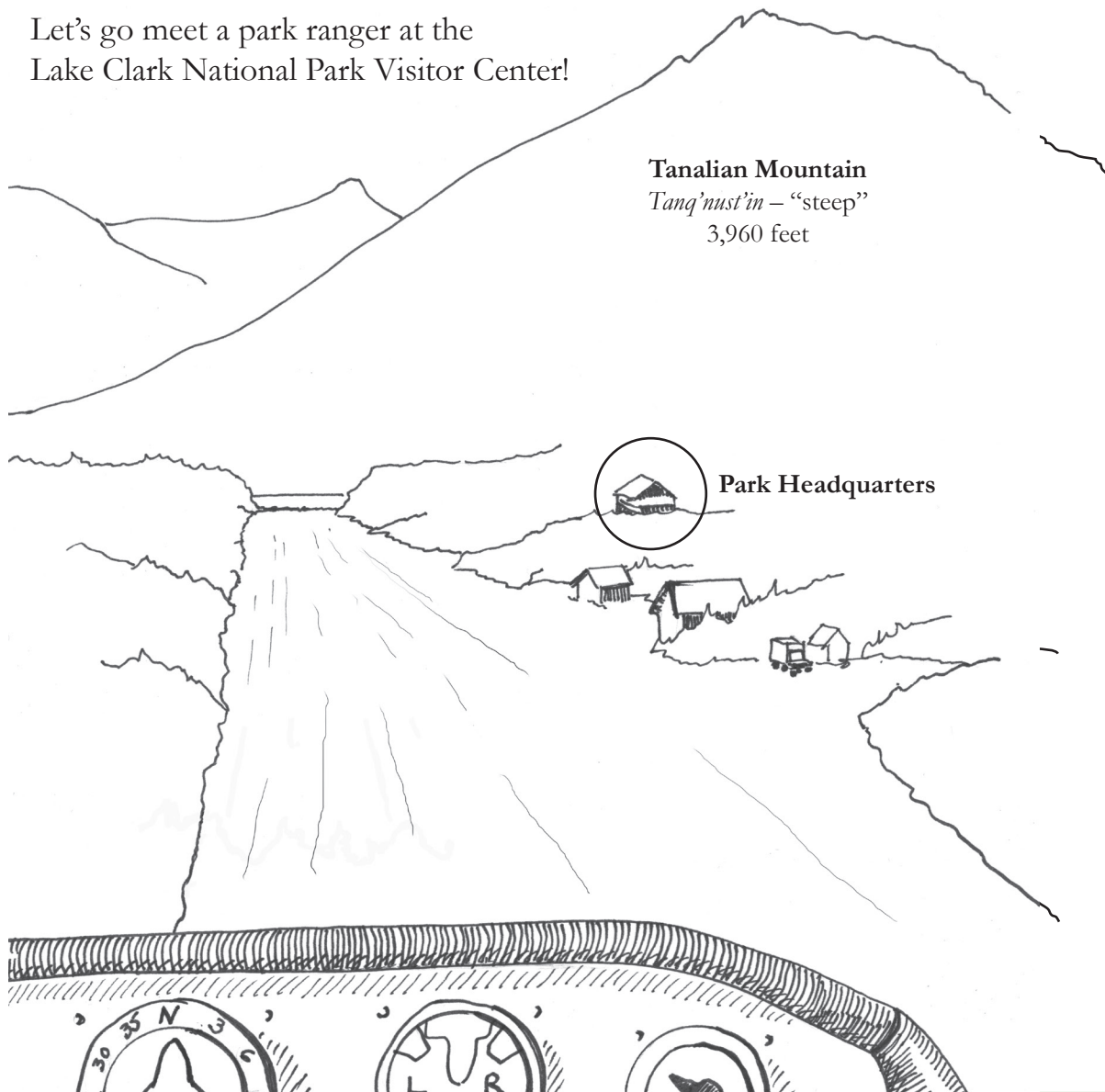
Follow my life's journey by drawing a line on this map from Lake Clark, down the rivers to Bristol Bay and back again.

People Gather Here



We're landing on the runway at Port Alsworth, a town of about 150 people. The town is named after Babe Alsworth, a famous Alaskan bush pilot. Lake Clark National Park headquarters is in Port Alsworth.

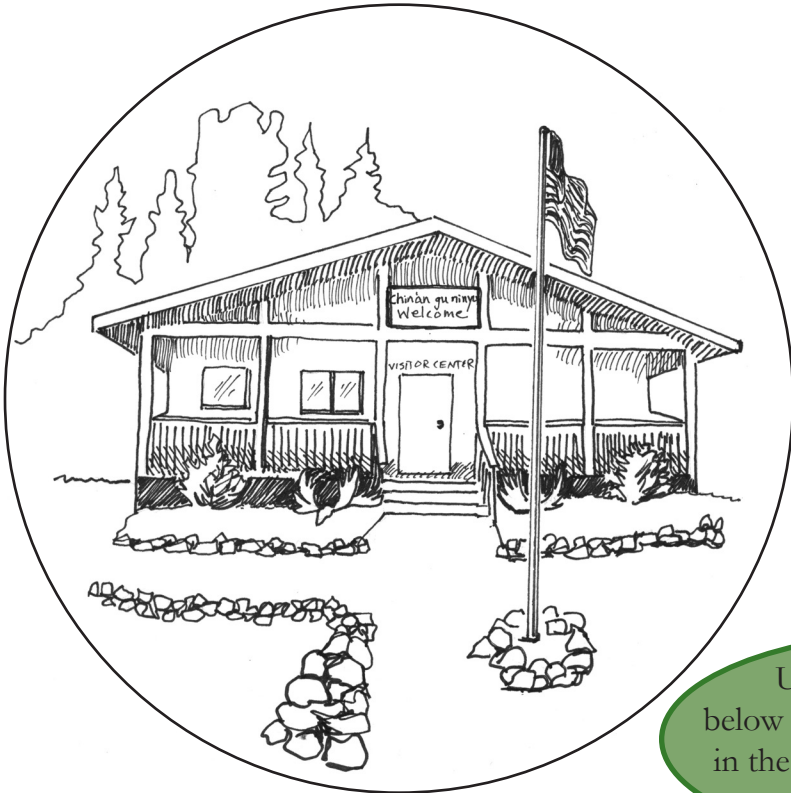
Let's go meet a park ranger at the Lake Clark National Park Visitor Center!



Tanalian Mountain
Tanq'nust'in – “steep”
3,960 feet

Park Headquarters

Visitors Welcome!



Unscramble the words below to see what you might find in the Lake Clark National Park Visitor Center.

At the Visitor Center, the ranger can help you learn about the park

Something to read about the park's history:

OKBOS _____

Something to watch that shows you the park volcanoes up close:

OEDIV _____

Something to read that shows you places to go in the park:

PMA _____

Some things to touch that help you learn about the park's animals:

NISSK _____

Answers on page 24.

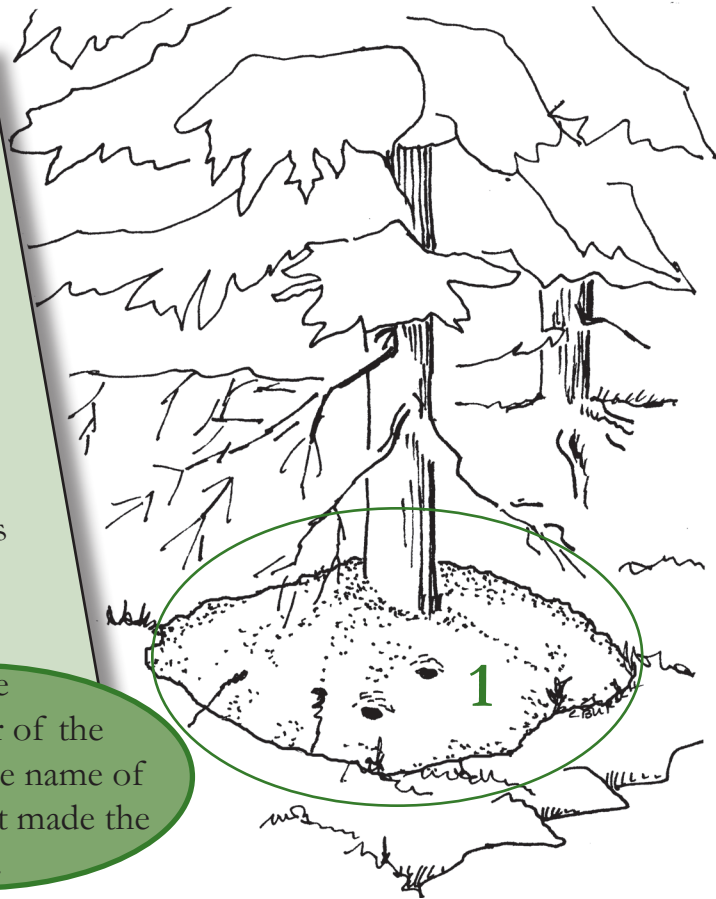
Wildlife Gather Here



Animals leave signs of their presence along the trail behind the Visitor Center. Moose, black bears, red squirrels and beavers are just four of the thirty-seven different kinds of mammals that live in Lake Clark National Park and Preserve.

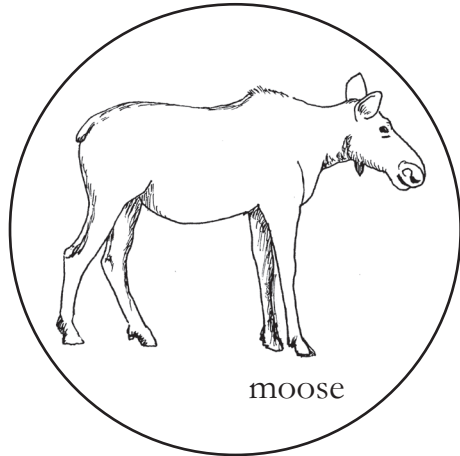
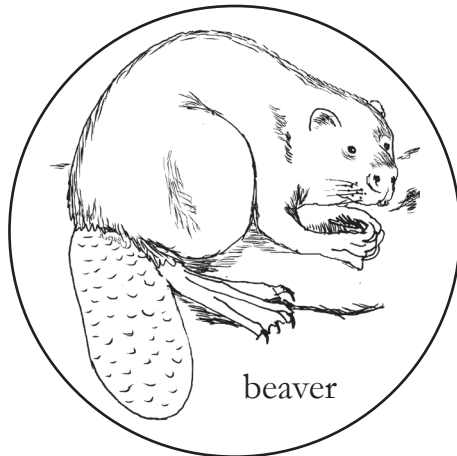
Can you “read” the trail signs and see where these animals have been?

Write
the number of the
sign next to the name of
the animal that made the
sign.

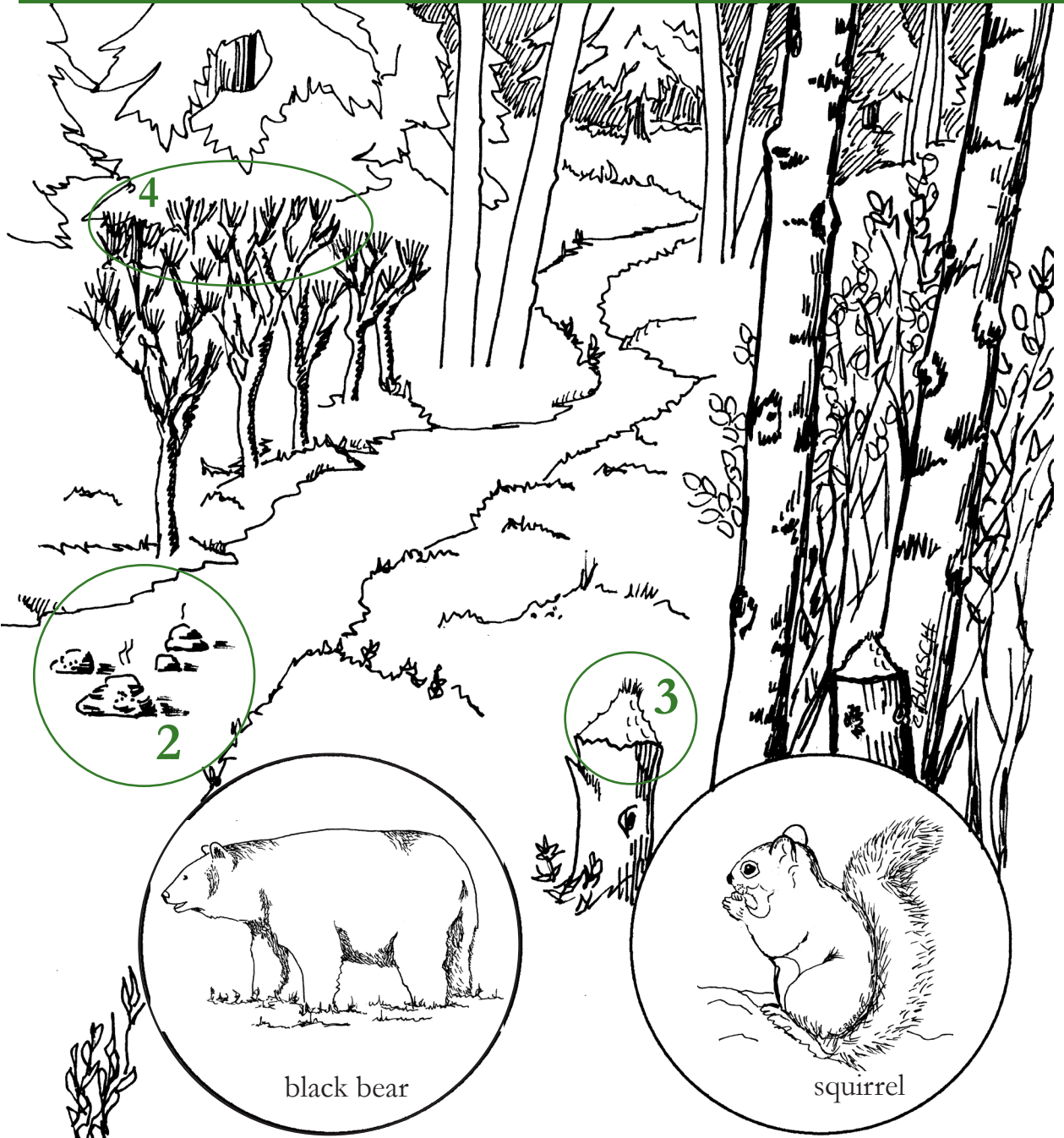


Answers on page 24.

Dena'ina names
for these animals are:
moose – *k'ubda'i*
black bear – *yeghedishla*
red tree squirrel – *ts'elga*
beaver - *chu*



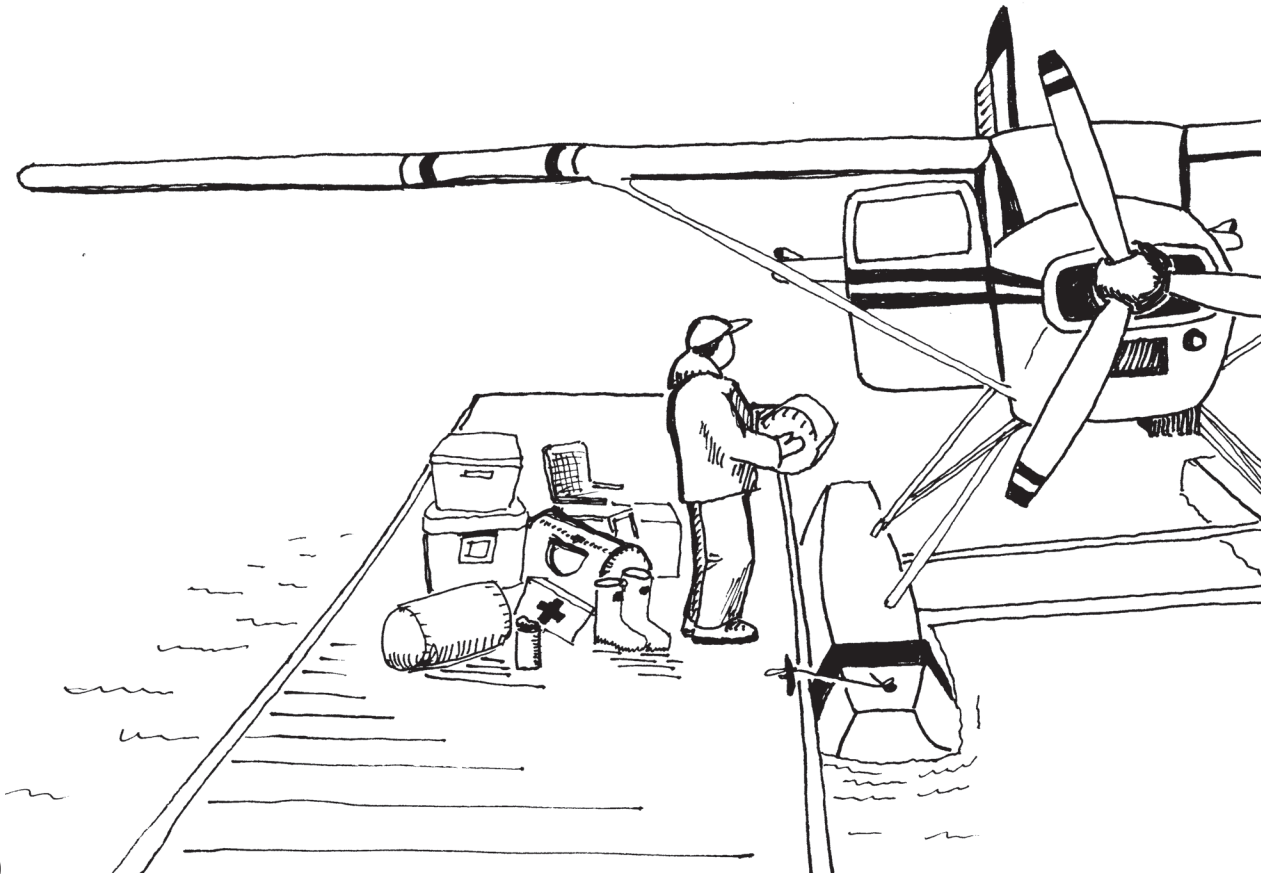
Read their Trail Signs!



Campers Gather Here



Many people leave Port Alsworth in floatplanes, heading into Lake Clark National Park and Preserve's backcountry for a wilderness camping adventure. We're going to end our journey with a camping trip at Twin Lakes. The Dena'ina words for floatplane, *mitniq nunudeti*, mean "one that lands on water." Landing a plane on water is very tricky and the pilot wants to make sure the load is balanced. We can only take things that are necessary for our safety and survival. We'll have to leave some of the things we brought behind.



Choose Well!

Circle 10 things we'll need for our *safety and survival* on our camping trip to Twin Lakes.

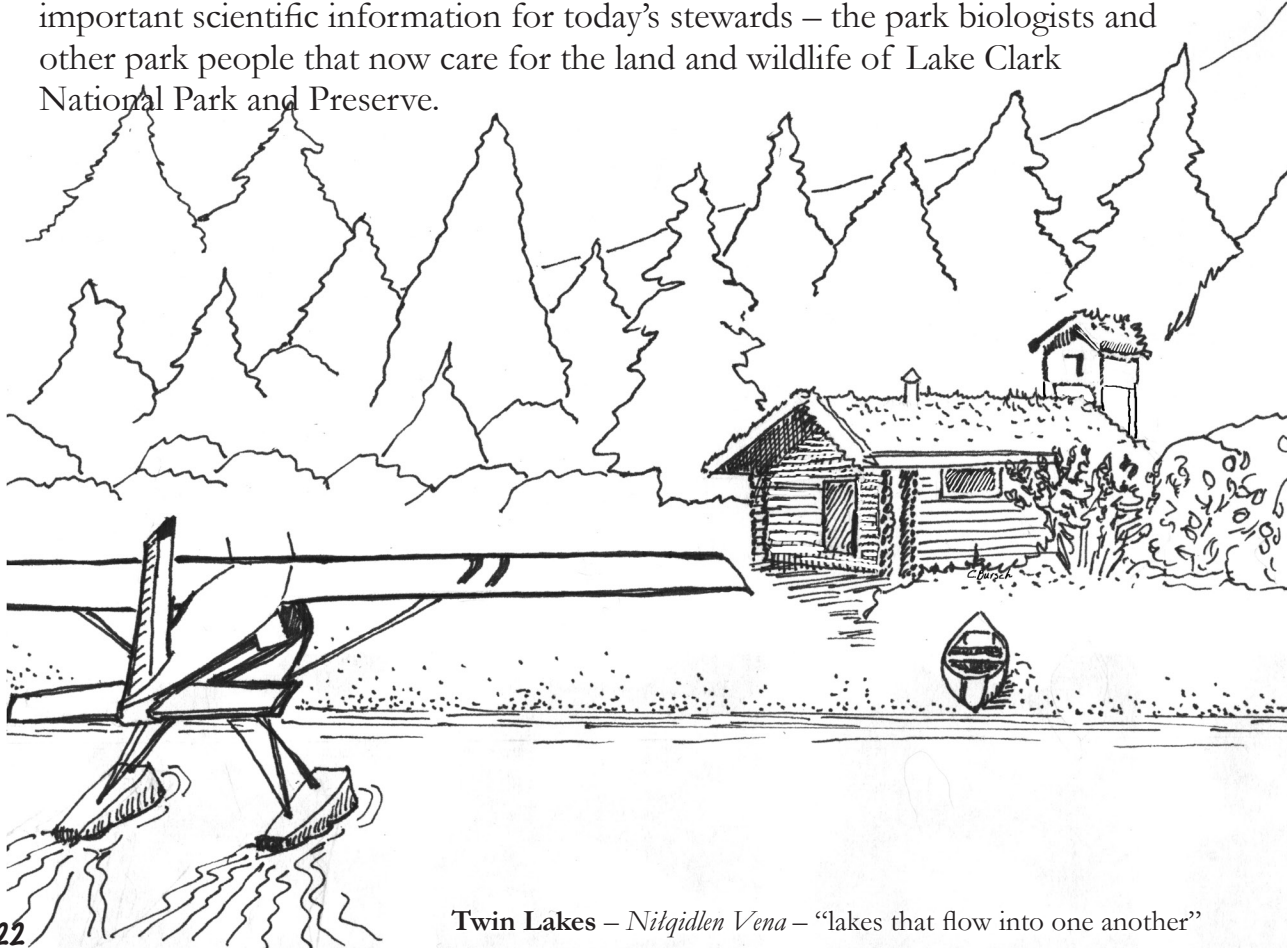
- 
- map and compass
 - hat
 - hair gel
 - lawn chair
 - fire starter
 - DVD player
 - food
 - tent
 - hair dryer
 - MP3 player
 - warm clothing
 - rain gear
 - first aid kit
 - camera
 - your pet
 - water bottle and filter
 - video game player
 - sleeping bag

Answers on page 24.

Stewards Gather Here

Stewards are people who take care of the land. The Dena'ina have been stewards of this land for hundreds of years. Richard (Dick) Proenneke was a steward here at Twin Lakes in the years before it became part of Lake Clark National Park. He built this cabin by hand and lived in it for thirty years. He wrote in his journal everyday. Dick wrote about the weather, wildlife, and his thoughts about life. After thirty years, he had one hundred pounds of journals! The Proenneke cabin is now a registered National Historic Site.

Dick Proenneke's written weather and wildlife observations have become important scientific information for today's stewards – the park biologists and other park people that now care for the land and wildlife of Lake Clark National Park and Preserve.



Twin Lakes – *Nilqidlen Vena* – “lakes that flow into one another”

**"The simplest things have given me the most pleasure."
Dick Proenneke**

Use this journal page to write down your own thoughts about your journey to Lake Clark National Park and Preserve.

Date: _____

Weather: _____

Answer page

Page 5: The park lies along the Ring of Fire, a zone of earthquakes and volcanoes circling the Pacific Ocean. Both Iliamna and Redoubt volcanoes are over **10,000** - feet high! The Chignik Mountains in between the volcanoes are only half as high, averaging about **5,000** feet. Redoubt Volcano erupted **23** times between December **1989** and April **1990**. Iliamna Volcano has not erupted in recorded history, but **60** miles under the volcanoes, magma is building up pressure for a future eruption!

Page 7: Time: **9:35 a.m.** Altitude: **1,300 feet** Airspeed: **130 mph** Direction: **SW** (southwest)

Page 9: **3)** U-shaped valley **1)** hanging glacier **4)** arête **2)** crevasses

Page 12 and 13: The ice line should extend across the lake from about halfway up Kijik Mountain, but remember, we're just guessing!

Page 14: **SOCKEYE** salmon! Protecting sockeye salmon habitat is one of the reasons Congress created Lake Clark National Park & Preserve.

Page 17: At the Visitor Center, the ranger can help you learn about the park with:

Something to read about the park's history: **BOOKS**

Something to read that shows you places to go in the park: **MAP**

Something to watch that shows you the park volcanoes up close: **VIDEO**

Some things to touch that help you learn about the park's animals: **SKINS**

Page 18-19: **beaver - 3** (gnawed birch stump), **moose - 4** (browsed willow branches), **black bear - 2** (bear scat), **squirrel - 1** ("squirrel midden" a pile of discarded spruce cone scales)

Page 21: **map and compass** (or a GPS and know how to use these items), **hat** (bring 2! one for sun, one for warmth), **warm clothing** (layer your clothing for changes in weather), **rain gear** (it can rain or snow on any day in the back country), **first aid kit**, **fire starter, matches or lighter** (for emergencies only, use a camp stove for cooking), **food** (check out a bear resistant food container when you're at the Visitor Center), **water bottle and filter** (it's always best to filter water for safety), **tent** (make sure it's strong with a good rain cover), **sleeping bag** (bring a warm one, it can be cold, even in summer)

Be a Junior Ranger!

If you want to become a Lake Clark National Park and Preserve Junior Ranger:

Try the activities in this book and/or color the pages.

Take the Junior Ranger Pledge below.

Sign and print your name on the Pledge.

Cut out the Pledge along the lines.

Mail the Pledge, along with your name and **RETURN ADDRESS** to:

Lake Clark National Park and Preserve
Junior Rangers
1 Park Place
Port Alsworth, AK 99653

We'll send you a Lake Clark Junior Ranger Certificate and a badge.

Cut Here Remember to include **YOUR RETURN ADDRESS** on the letter.

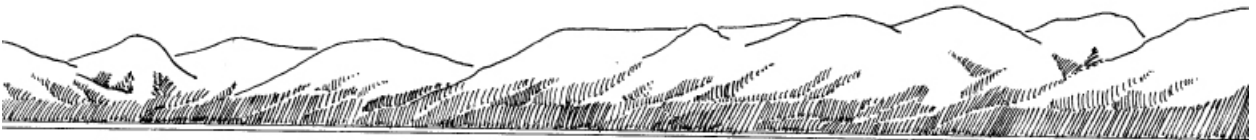


Junior Ranger Pledge

I promise to explore, learn about, enjoy and protect the natural and cultural resources of my National Parks, my community and my Earth.

Signed: _____(your name)

Address: _____



Chin'an gu ninyu!



Thank you for coming on our Junior Ranger Journey to
Lake Clark National Park and Preserve!

Learn more about the park on our website:

<http://www.nps.gov/lacl>

Make plans to visit the other National Park units all across America.

The National Park Service cares for special places saved by the American people
so that all may experience our heritage.

**EXPLORE
LEARN
PROTECT**



**Be a
JUNIOR
RANGER!**



**NATIONAL PARK
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