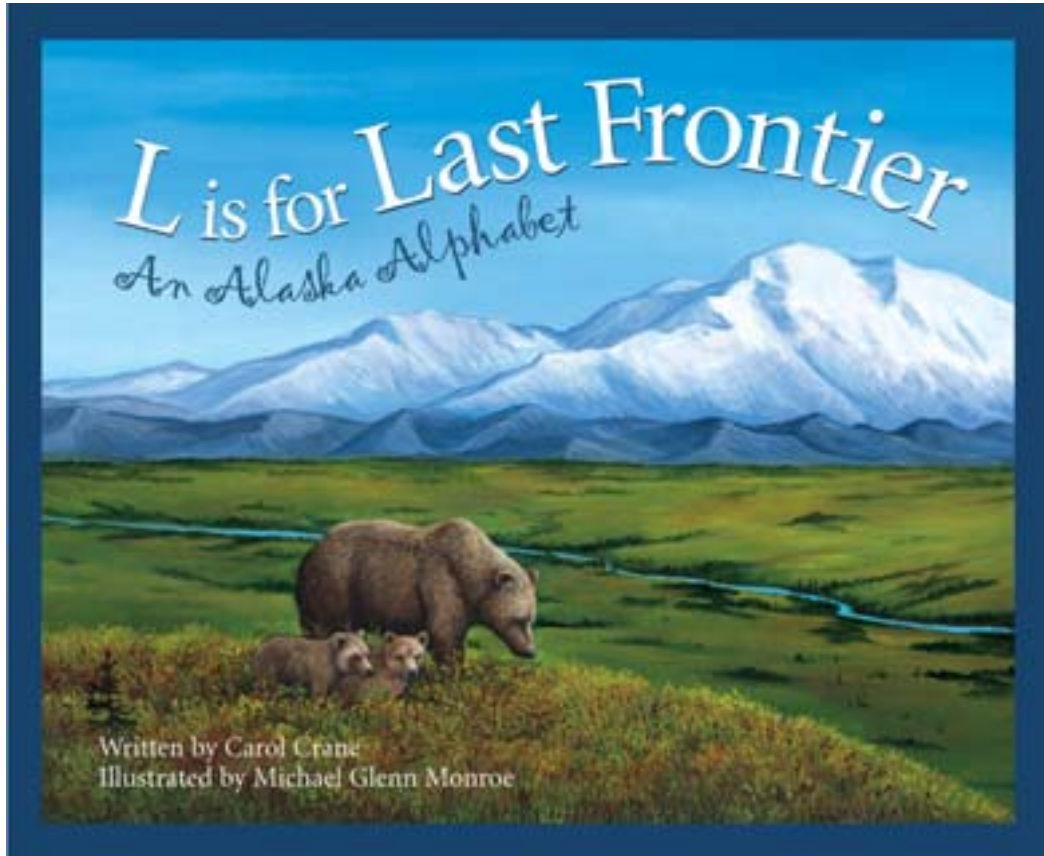


# A Teacher's Guide

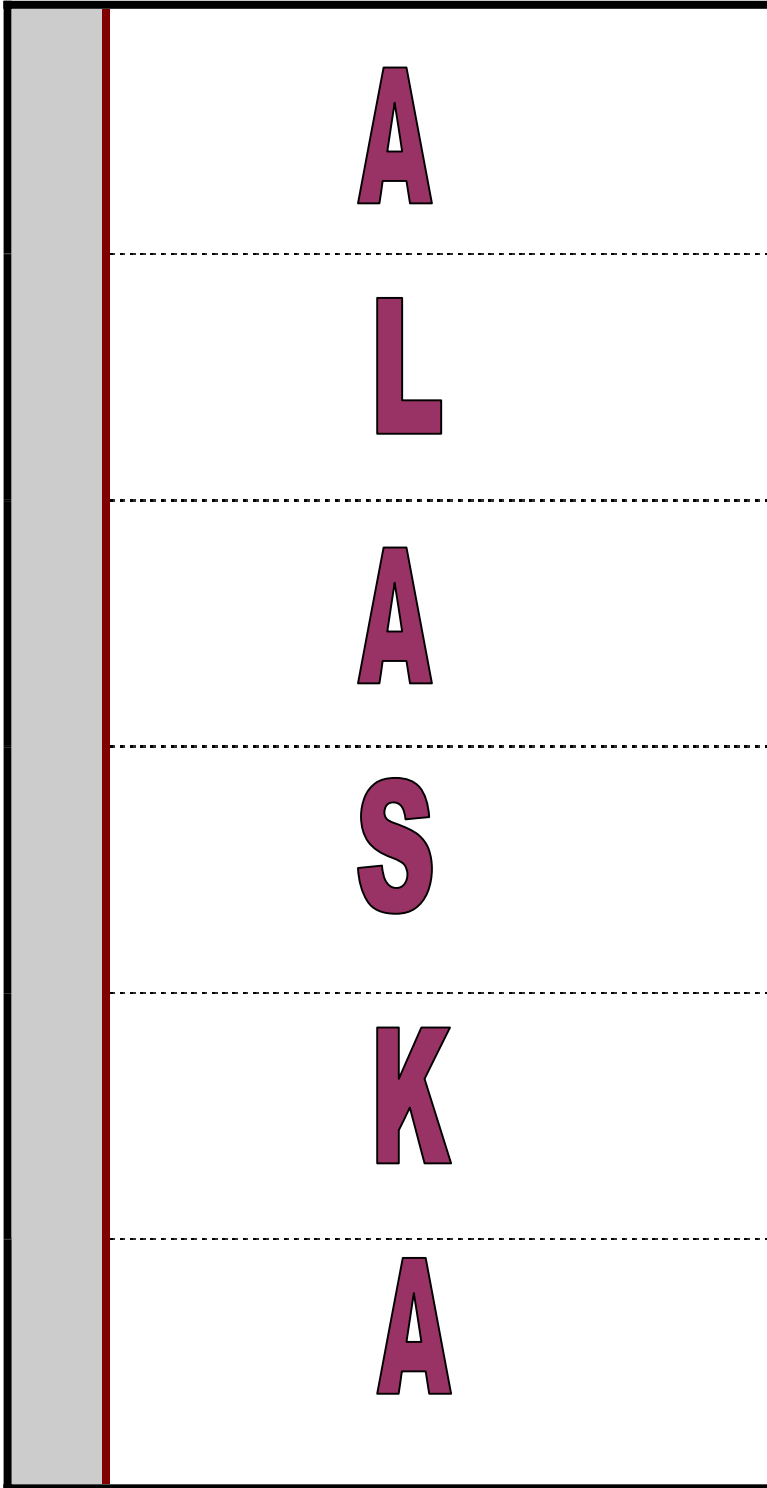


Written by  
Patricia A. Pierce

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[www.sleepingbearpress.com](http://www.sleepingbearpress.com)

# Alaska's State Facts

Read *L is for Last Frontier* and create a booklet on Alaska's state facts.



## Directions

1. Cut out the two strips along the black lines.
2. On the first strip, cut along the dotted lines.
3. On the second strip, write the state fact for each section.
4. Attach the two strips together by stapling along the gray area.
5. Fold back each section/letter after the second strip is attached to reveal each state fact.

Capital

\_\_\_\_\_

Bird

\_\_\_\_\_

Flower

\_\_\_\_\_

Tree

\_\_\_\_\_

Gem

\_\_\_\_\_

Mineral

\_\_\_\_\_

Fish

\_\_\_\_\_

Sport

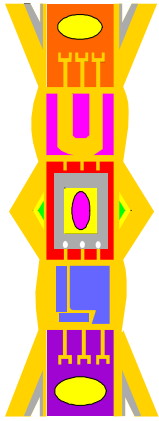
\_\_\_\_\_

Insect

\_\_\_\_\_

Ocean Mammal

\_\_\_\_\_



# alaska's Totem Poles

Read page A of *L is for Last Frontier* to learn about the artistic skills of Alaska Natives.

Visit the website [www.everythingalaska.com](http://www.everythingalaska.com) to view beautifully carved Alaska totem poles.

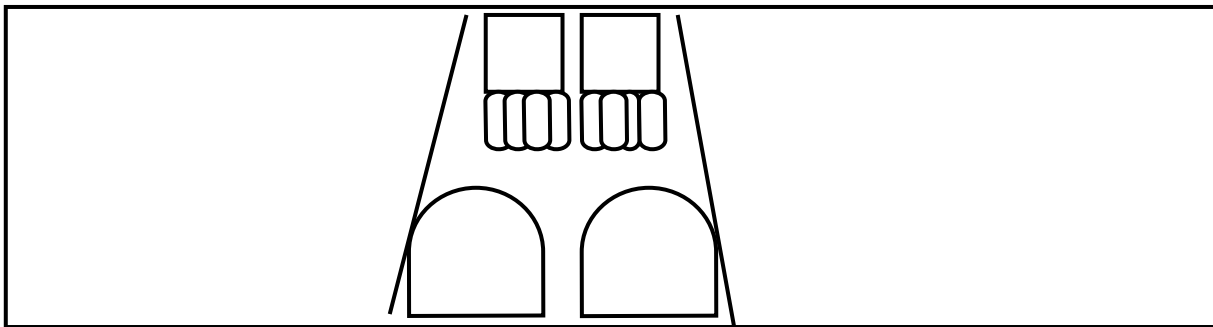
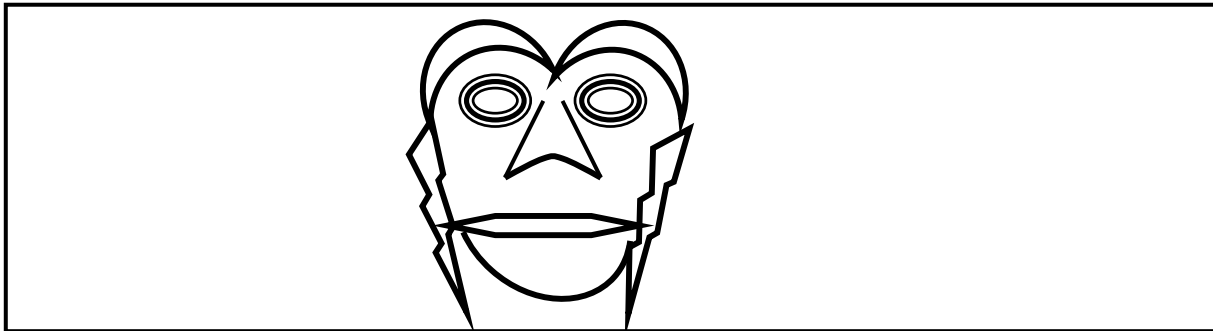
## Totem Pole Art Activity

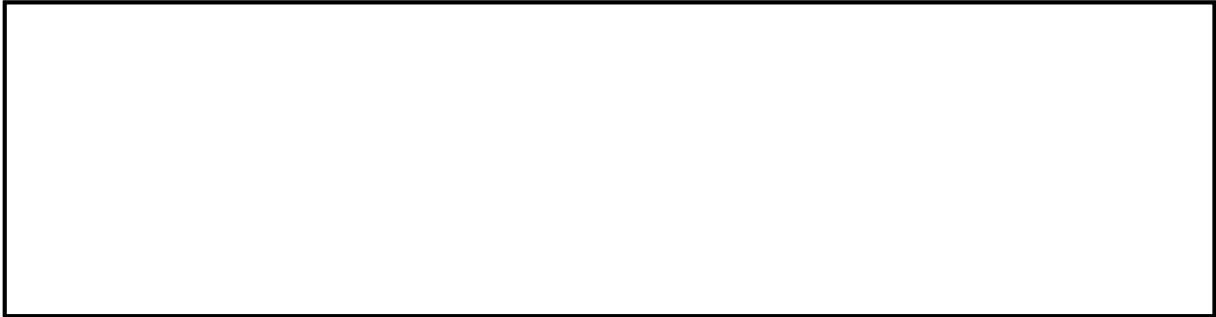
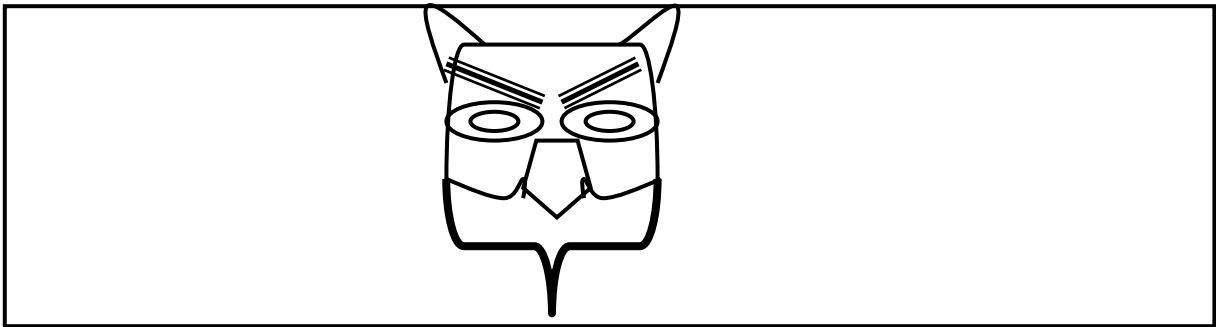
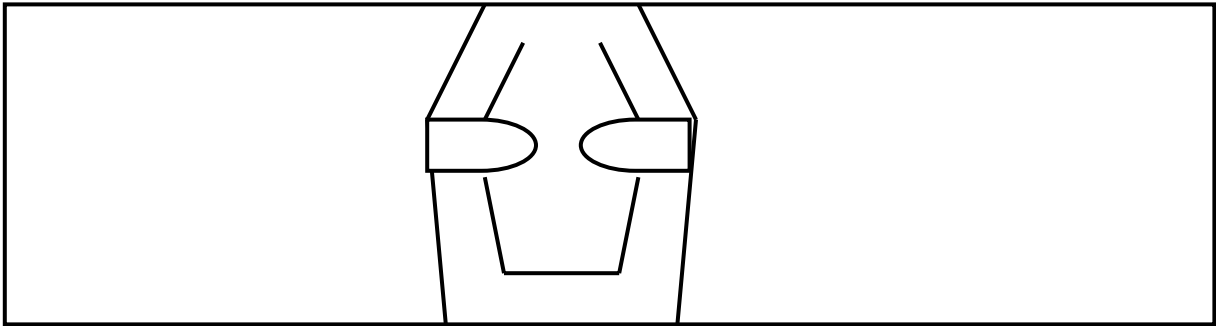
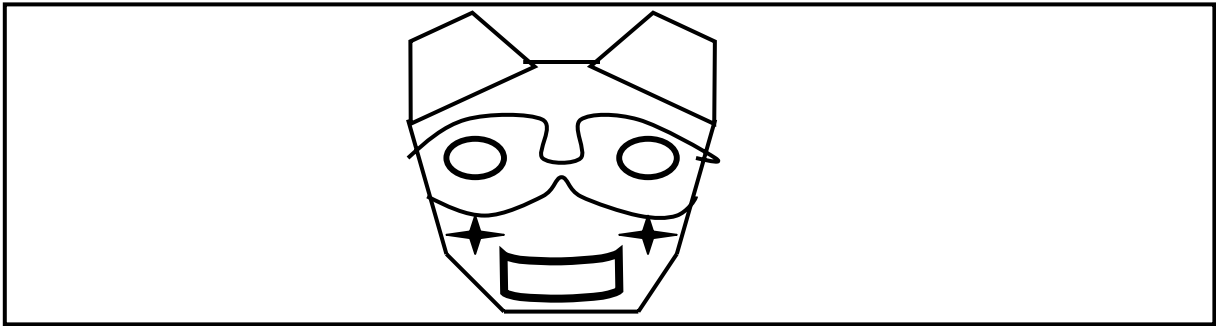
### Materials

Paper towel tube                      Glue  
Design strips                          Scissors

### Directions

1. Color the design strips or create your own.
2. Cut out and glue each strip on the paper towel tube.
3. Continue adding design strips to your totem pole.
4. Color or cut off any extra exposed paper towel tube.





*Create your own design!*



# Alaskan Berries

Write these Alaskan Berries in alphabetical order.

Cranberries

---

Blueberries

---

Huckleberries

---

Crowberries

---

Blackberries

---

Read page C of *L is for Last Frontier*, and then match the berry with the correct food item.

Cranberries

Akutua

Blueberries

Eskimo ice cream

Crowberries

Relishes

Soapberries

Tingaulik

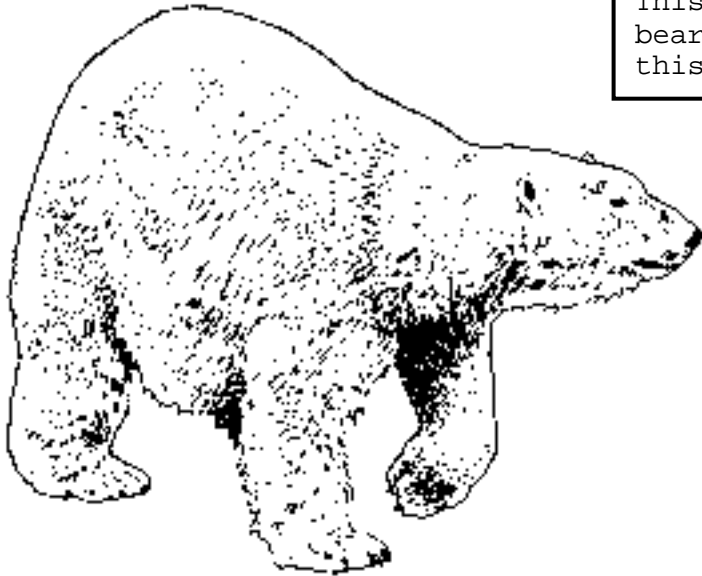


Read page B of *L is for Last Frontier* for facts about Alaska's bears. Complete the chart below by marking an X in each box that correctly describes characteristics of each bear.

	Black Bear	Brown Bear	Polar Bear
Lives in Alaska			
Webbed front feet			
Shoulder hump			
Smallest in size			
White coat			
Large digging claws			
Pointed head			

# Warm Polar Bear

Beneath the white fur of the polar bear is a layer of black skin. This black skin helps keep the polar bear warm. Do you know why? Try this experiment to find out.



## Materials

Tape  
Gooseneck lamp  
Two thermometers  
Two glasses  
One piece of white paper  
One piece of black paper

## Directions

1. Wrap and tape the white piece of paper around one glass.
2. Wrap and tape the black piece of paper around the other glass.
3. Place a thermometer in each glass.
4. Read and record the temperature of each thermometer.
5. Turn on the lamp and place the glasses the same distance apart underneath the light.
6. After 10 minutes, read and record the temperature of each thermometer.
7. Compare the temperatures.

*When light strikes a surface, it either absorbs or reflects into the material. The color black absorbs light and the color white reflects light. The more light a material absorbs, the hotter it becomes. The black skin of the polar bear absorbs light to help keep the polar bear warm.*

# Mount McKinley



Mount McKinley is the  
highest mountain in  
North America.

It has a summit of 20,320 feet.

*Compare the difference in height  
of Mount McKinley to the following  
states and their high points.*

1.

Alaska	20,320 ft
Mount McKinley	
—	
Washington	14,410 ft
Mount Rainier	
—	

2.

Alaska	20,320 ft
Mount McKinley	
—	
Colorado	14,433 ft
Mount Elbert	
—	

3.

Alaska	20,320 ft
Mount McKinley	
—	
Hawaii	13,796 ft
Mauna Kea	
—	

4.

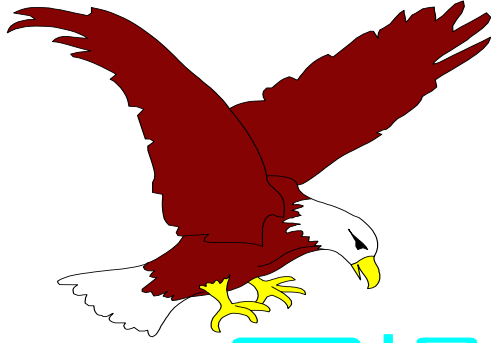
Alaska	20,320 ft
Mount McKinley	
—	
Wyoming	13,804 ft
Gannett Peak	
—	



# ***THE LAST FRONTIER***

Read page F of *L is for Last Frontier*. Test your knowledge of Alaska's flag by answering the following questions.

1. In 1926, Bennie Benson received first prize for his entry in
  - A. a frog jumping contest.
  - B. a forget-me-not flower arrangement contest.
  - C. a flag design contest.
  
2. The Alaska flag has eight gold stars. Seven of the stars form
  - A. the constellation of Scorpio.
  - B. the constellation of the Big Dipper.
  - C. the constellation of the Little Dipper.
  
3. The eighth star on Alaska's flag is the North Star and represents
  - A. Alaska.
  - B. North America.
  - C. The United States of America.
  
4. The blue field of the flag represents
  - A. the sky of Alaska.
  - B. the sea of Alaska.
  - C. the mountain lakes of Alaska.
  - D. the wildflowers of Alaska.
  - E. All of the above.



## Directions

Read page E of *L is for Last Frontier*.

Use the words from the word box to complete the blanks in the passage.

# ALASKA

### Word Box

bald eagle

five

mile

eight

white

hunters

prey

## The Bald Eagle

The national symbol of the United States is the \_\_\_\_\_. It was chosen due to its great strength and majestic looks.

The bald eagle is among the largest bird of \_\_\_\_\_. They have a wingspan of over \_\_\_\_\_ feet. Bald eagles have amazing eyesight. They have color vision and can spot a fish in the water a \_\_\_\_\_ away.

The bald eagle is easily identified. It is a dark brown bird with pure-white head, neck, and tail feathers. The distinctive \_\_\_\_\_ feathers appear after the bird is \_\_\_\_\_ years old. The bald eagle also has a powerful yellow beak.

Bald eagles have been known to live for 20 or more years. They were declared an endangered species in 1967. By law, bald eagles are now protected from \_\_\_\_\_ and have greatly improved in numbers.

# Create An Iceberg



## Materials

Water  
Paper cup  
Black marker  
Salt  
Spoon  
Clear plastic 2-quart bowl  
Freezer



Read page G of *L is Last Frontier* to learn interesting facts about glaciers.

## Directions

1. Fill the paper cup with three-fourths water.
2. Mark a line on the outside of the paper cup with the black marker to indicate the water level of the paper cup.
3. Set the paper cup in the freezer for 2 hours or until the water is completely frozen.

**Question: Will the frozen water (ice) be below, the same, or above the black marked line?**

4. Fill the clear plastic bowl three-fourths with water. Add 2 tablespoons of salt and stir.
5. Tear the paper cup away from the ice.

**Question: Will more of the ice be below or above the water's surface?**

6. Place the ice in the water and observe.

**Question: Will the frozen water (ice) be below, the same, or above the black marked line?**

Water expands when it freezes, so the frozen water (ice) will be above the black marked line.

**Question: Will more of the ice be below or above the water's surface?**

More of the ice will be below the water's surface. The density of the ice is slightly less than the density of the saltwater. Almost 90% of an iceberg is below water. About 10% shows above the water.

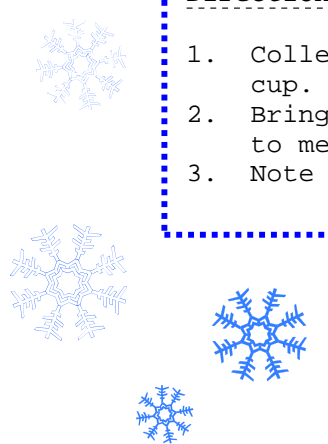
A collection of various blue snowflake illustrations scattered around the title.

# Melted Snow

## Materials

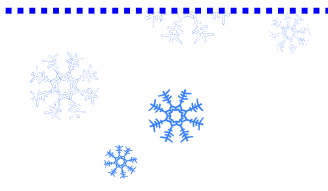
A two cup (1 pint) measuring cup  
Fresh snow

## Directions

- 
- A collection of various blue snowflake illustrations scattered around the directions box.
1. Collect two cups of fresh snow in the measuring cup. Be careful not to pack the snow.
  2. Bring the measuring cup inside and allow the snow to melt at room temperature.
  3. Note the amount of water in the measuring cup.

Question: Why did the two cups of fresh snow melt to a smaller amount of water.

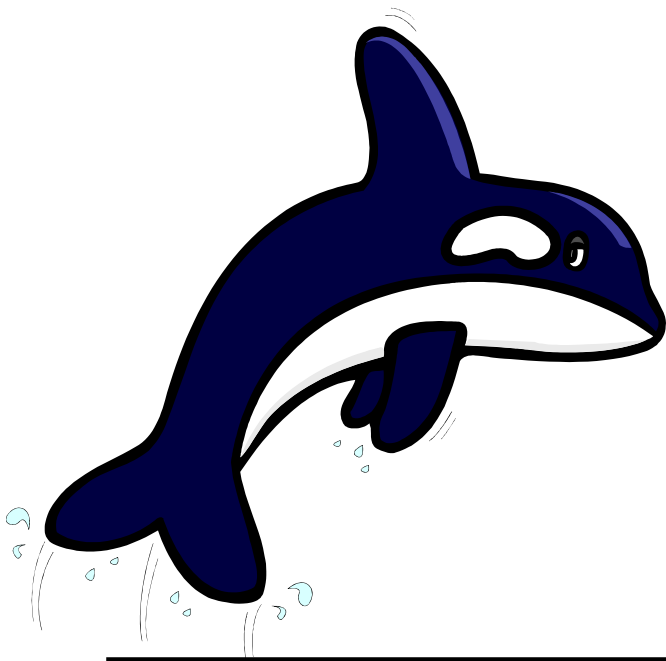
Answer: Air mixes with the snowflakes as they fall. The air is released when the snow melts. The volume of the fresh snow is greater than the volume of the melted snow.

A collection of various blue snowflake illustrations scattered at the bottom of the page.

# Shimmering Night Time Show

Create your own beautiful display of the northern lights by painting a scratch art picture.

Read pages N and O of *L is for Last Frontier* and refer to the illustration when creating your design.



## Materials

Paper  
Box of crayons  
Black tempera paint  
Paint brush  
Dish soap  
Scissors  
Glue  
Penny  
Orca whale picture

## Directions

1. The top part of the paper will be the night sky. Color this section of the paper with green, red, blue, black and purple crayons in a wavy stripe pattern. Press hard to leave a dark, thick layer of crayon.
2. The bottom part of the paper will be the ocean. Repeat step one, but cover the majority of this area with blue crayon for the water.
3. Add a drop of dish soap to the black tempera paint. This will help the paint stick to the colored paper.
4. Paint a layer of black paint over the colored paper and allow the paint to dry.
5. Using a penny, scratch a design to resemble the northern lights and ocean water on the surface of the paper. Removing sections of the black paint will reveal the bright colors.
6. Cut out the picture of the Orca whale. Glue on the picture.

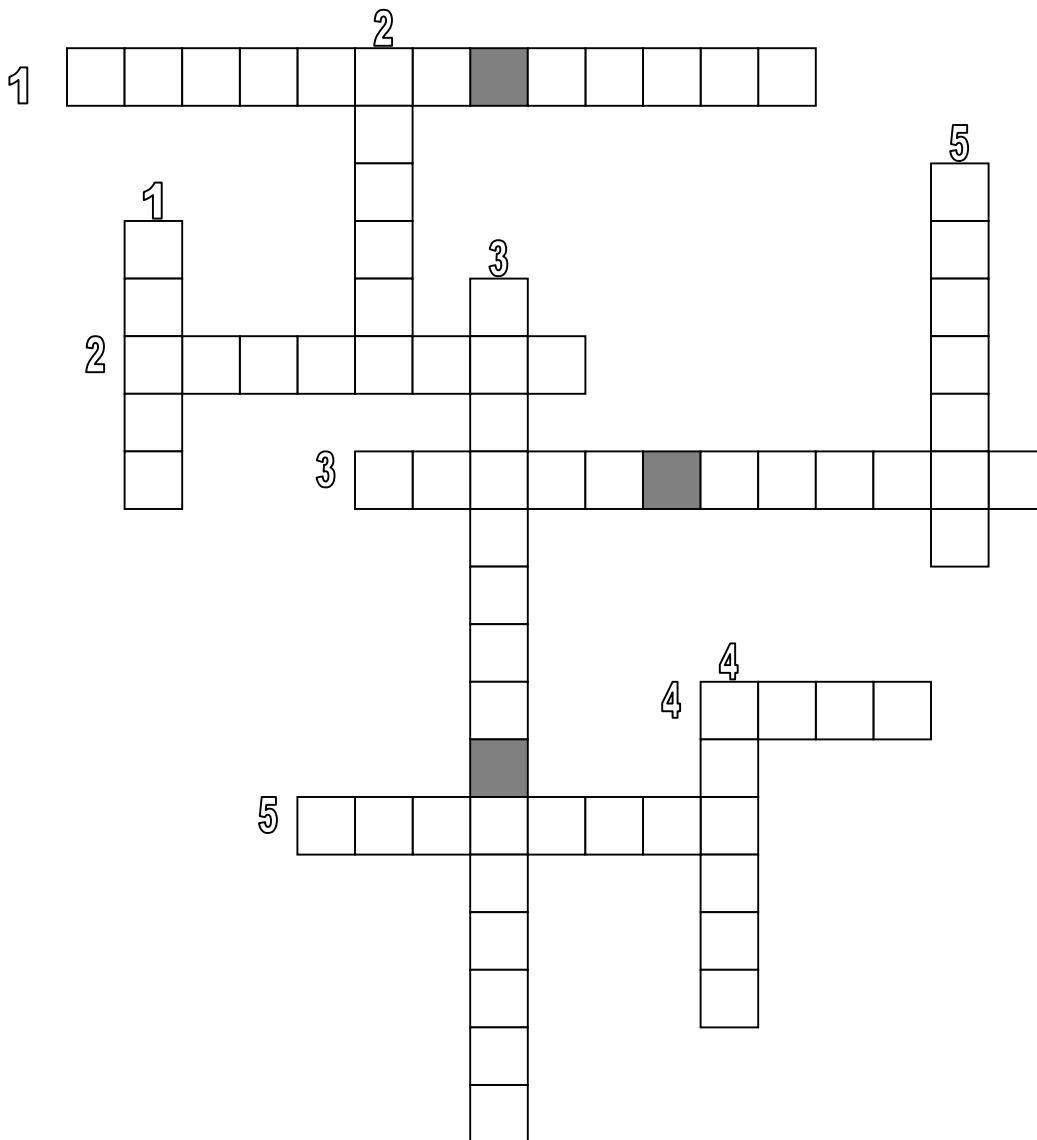
## L is for Last Frontier Crossword

### Across

1. Alaska's ocean mammal
2. The trail that became a legend when sled-dog mushers delivered diphtheria serum to Nome to help stop an epidemic
3. Alaska's state tree
4. Alaska's state gem
5. A slim, oily, silvery-blue fish that can be used as a candle

### Down

1. A strong, but lightweight boat made from walrus hide
2. America's largest state
3. A natural display of lights
4. Alaska's capital
5. The Alaska rainforest is made up of the Tongrass National Forests and the \_\_\_\_\_.



# Animals of the Last Frontier

Learn about Alaska's wildlife in *L is for Last Frontier*.

Read the clues and unscramble the names of the animals.

1. This animal returns to the exact river or stream where it was hatched.

GKIN MONSAL \_\_\_\_\_

2. This animal is a member of the deer family and can weigh up to 1,600 pounds.

OOSME \_\_\_\_\_

3. This animal is a member of the dolphin family and can weigh up to 10 tons.

LLIKER HWAEL \_\_\_\_\_

4. This animal has feathers on the soles of its feet.

TARPHINAG \_\_\_\_\_

5. This animal's fur is parted down the middle of its head.

SMUK OX \_\_\_\_\_

6. This animal has webbed feet and a heavy white coat.

LOPAR RABE \_\_\_\_\_

7. This animal is the national symbol of the United States.

DALB AGEEL \_\_\_\_\_

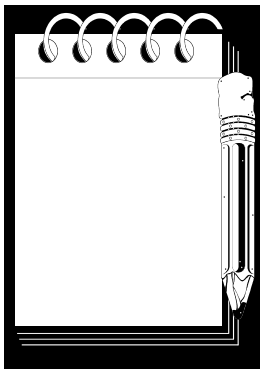
8. This animal is used to make Eskimo ice cream.

LOOGHIAN \_\_\_\_\_

# Loon Flip Book

Read about loons on page L of *L is for Last Frontier*.

Create a simple animation of a loon swimming across the water by using a flip book. Refer to the illustration on page L as a guide for your drawings.



#### Materials

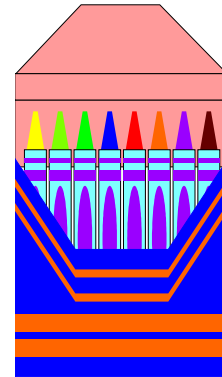
*L is for Last Frontier*

Mini notepad or sticky pad

Pencil

Crayons

Index card

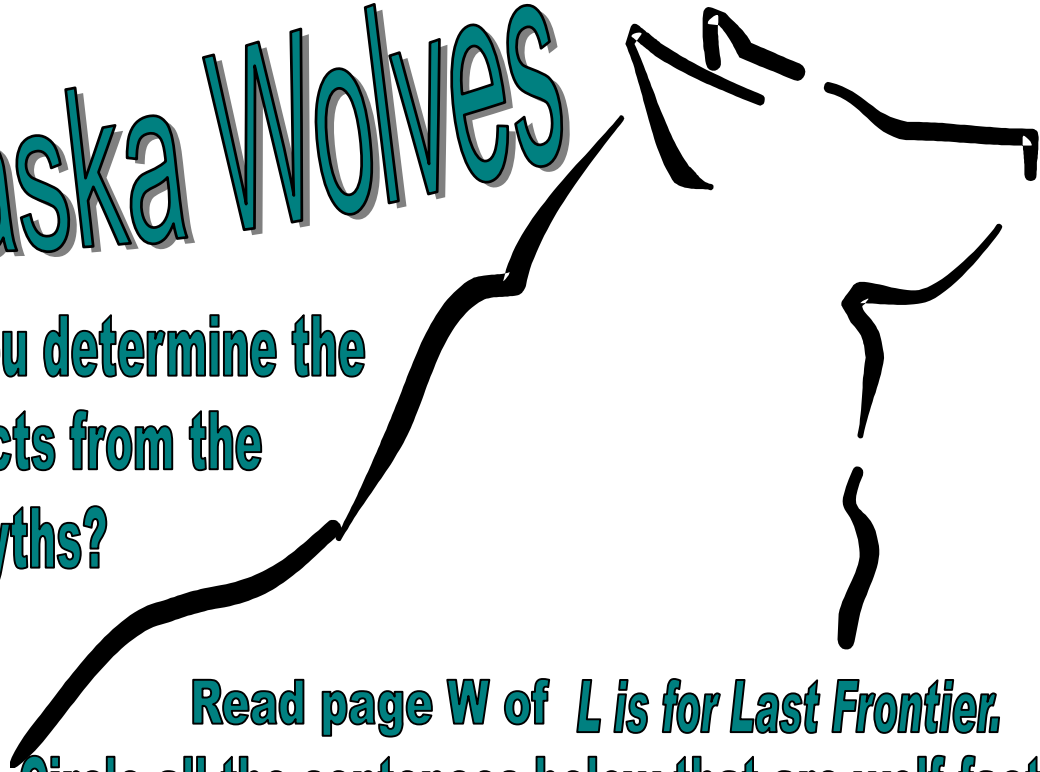


#### Directions

1. Using an index card, cover up one of the loons on page L.
2. Move the index card slightly to reveal the front part of the loon's body (the head).
3. Draw this portion of the loon and the lake on the right hand side of the last page of the notepad.
4. Move the index card slightly to the right of the picture.
5. Repeat step three - drawing at the same point on the next page. Remember to work starting from the back pages to the front pages of the notepad.
6. Continue moving the index card slightly each time until the loon is fully revealed. Continue drawing each revealed section of the loon on the lake at the same point for each of the following pages. (Your picture will change only a little from one page to the next).
7. When you have completed all the drawings, color each picture.
8. Close the notepad and quickly flip the pages, back to front, to watch your loon swim across the water.

# Alaska Wolves

Can you determine the  
wolf facts from the  
wolf myths?



Read page W of *L is for Last Frontier*.  
Circle all the sentences below that are wolf facts.

Wolves are found in almost all areas of Alaska.

Wolves howl to talk to each other.

Wolves are not afraid and often attack people.

Wolves live in groups called packs.

Wolves will adopt and raise lost children.

Wolves howl only when the moon is full.

Wolves can travel for miles without stopping.

Wolves are only gray in color.

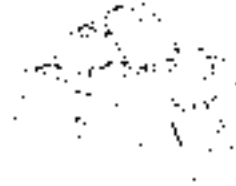
# Alaska Gold

Following the dream of striking it rich was not easy. Mining and panning for gold was hard work. Prospectors endured cold weather and difficult traveling conditions. Read about Alaska's gold discovery on pages X and Y of *L is for Last Frontier*.

Test your knowledge about Alaska and try your luck with striking it rich by playing *Alaska Gold*.

## Materials

*L is for Last Frontier*  
Two Dice  
Question and Answer Cards  
Notepaper



## Directions (TWO PLAYER GAME)

1. Each player receives a Question and Answer Card.
2. Player one begins by asking player two the first question from the Question and Answer Card.

When answering questions, players may search for answers in *L is for the Last Frontier*.

3. If the question is answered incorrectly, it's the other player's turn to answer a question.

If the question is answered correctly, it's time to try your luck at striking it rich! The player rolls both of the dice hoping to roll doubles (two of the same number). If doubles are rolled, the player has struck gold!

4. The total sum of the doubles is multiplied by 1,000 and recorded on a piece of paper. The player's turn is over if a double is not rolled.
5. Players continue to take turns, asking and answering the questions. The player with the highest score after 10 questions wins.

*If by chance a double is not rolled during the course of the game, both players take an extra turn rolling at the end of the game. The player with the highest sum of the two dice is the winner.*

Question and Answer Card (Player One)

1. When was gold first discovered in Alaska? **In 1848**
2. What is the longest river in Alaska? **The Yukon River**
3. What is another name for blueberries? **Huckleberries**
4. What is Alaska's official insect? **The four-spot skimmer dragonfly.**
5. Name Alaska's northernmost town. **Barrow**
6. How do adult musk oxen protect their young? **By forming a circle around them.**
7. What is Alaska's official ocean mammal? **The bowhead whale**
8. Where is most of Alaska's jade found? **North of the Arctic Circle**
9. What is Alaska's official state fish? **King Salmon**
10. A sled-dog racer must end the Iditarod race with how many dogs?  
**At least 5 dogs**

Question and Answer Card (Player Two)

1. When was gold adopted as Alaska's state mineral? **In 1968**
2. Which of Alaska's bears has a pointed head and is the smallest of the three bears? **The black bear**
3. What is the name of the berry known as the whipped-cream berry?  
**Soapberry**
4. What is Alaska's official state flower? **The forget-me-not**
5. How many days of continuous sunlight does Barrow receive? **84**
6. What is Alaska's official state tree? **Sitka Spruce**
7. Name the five species of loons found in Alaska. **Common, yellow-billed, red-throated, pacific and arctic**
8. What is Alaska's capital? **Juneau**
9. What slim, oily fish is used as a candle? **Hooligan**
10. A sled-dog racer must begin the Iditarod race with how many dogs?  
**16 dogs**



Students can create their own question and answer cards or use the questions and answers from *A Frontier Full of Facts* located at the back of *L is for Last Frontier*.

# Interesting Alaska Facts

Read these amazing and interesting facts about Alaska. Which fact did you find to be the most interesting? Rank the facts from one to ten, with number one being the top fact on your list. Share your list with others.

\_\_\_\_\_ The state of Rhode Island can fit into Alaska 425 times.

\_\_\_\_\_ There are no plants poisonous to the touch in Alaska.

\_\_\_\_\_ Alaska Natives use porcupine quills for jewelry and decoration on clothing.

\_\_\_\_\_ In Barrow, Alaska, a 4 million-dollar supermarket was built on stilts to prevent central heating from thawing the permafrost.

\_\_\_\_\_ Anchorage is Alaska's largest city.

\_\_\_\_\_ Alaska was purchased from Russia in 1867.

\_\_\_\_\_ There are only two species of bees in the arctic. They stay warm by shivering their flight muscles to generate heat.

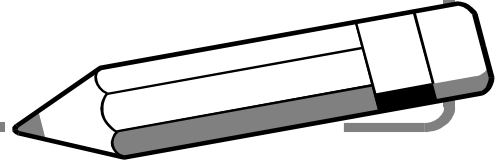
\_\_\_\_\_ The arctic woolly bear caterpillar produces special chemicals in its body so it can live in temperatures as low as -70 degrees.

\_\_\_\_\_ The fat of whales, walrus, and seals is called blubber.

\_\_\_\_\_ Alaska contains 3,000 rivers, 3 million lakes and 5,000 glaciers.

## Iditarod Checklist

**Make a list of items you would pack for the Iditarod race.**



*The Iditarod rules require that the sleds carry certain items. Use the code to decipher the items.*

A	B	C	D	E	F	G	H	I	J	K	L	M
1	2	3	4	5	6	7	8	9	10	11	12	13
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
14	15	16	17	18	19	20	21	22	23	24	25	26

1.) 1-24-5

---

2.) 19-14-15-23-19-8-15-5-19

---

3.) 19-12-5-5-16-9-14-7    2-1-7

---

4.) 3-15-15-11-5-18

---

5.) 4-15-7    2-15-15-20-9-5-19

---

6.) 22-5-20    2-15-15-11

---

7.) 18-1-3-5    16-18-15-13-15-20-9-15-14-1-12    9-20-5-13-19

---

Visit [www.ultimateiditarod.com/sledcargo.htm](http://www.ultimateiditarod.com/sledcargo.htm) for information about the importance of each item and for a list of other common additional items that racers carry on the sled.

# Alaska Word Search

DENALI	GLACIERS	HOOLIGAN	IDITAROD
ANCHORAGE	NOME	ESKIMOS	HUSKY
JUNEAU	SALMON	PTARMIGAN	LOON
TUNDRA	UMIAK	MOOSE	WOLVES

N O M D E N T U N D R T A R H U N O M D E N X U V I  
T Z Y S O L M N U L O O N U T E F O H U S K U A Z E  
X U L M J W T U D S A L M O S D E U O V O N O M I Z  
D E N A L I K N E A S K I O E R S I S H H U S K Y V  
D O U D M K D Z R L A L N X C P T A T A O R I W I O  
B E P N I A N I A N C H O R A G E A P T O O U G L A  
G U T I J G R X T N N P M X S I M G E S L K L V L R  
R L M C S L C A E A C T E I K M T Z V N I A X I Z E  
N A A I X A O B X Y R H S A L O P X O G G A E O N P  
X P U U O C W O L V N O E L X E A N C H A F L O N E  
N O M O E I O D X X K F D S S X T P J U N E A U P W  
U N Z E N E C H J O Y L W A A X J U V X D S X L O O  
M F I O F R X P T Z M O O K O L L E K Y P K P T A L  
I O E R M S I L T U N D R A P O M N Z E W I N M O V  
A T O P T E P O M A E S K I J U A O I S K M W O L E  
K X W S E A N C E S R M O O Z E J U N L O O S E Z S  
P T A R E I X D Z H B M I G A N D E N A N S M O O S  
U M I K E S K O M I H U I S A L M J W O L H E S D E  
T Y B N D R A M O H U S K G J U N E O C T B Z S T L  
M O O S Z X M O S A N C H I A U N D R S A L O A T S  
K J U N O L O P Z T N O M E T N W O L W E Z H O P E

# Answer Page

## Alaska's State Facts

Capital - Juneau  
Bird - Ptarmigan

Flower - Forget-Me-Not  
Tree - Sitka Spruce

Gem - Jade  
Mineral - Gold

Fish - King Salmon  
Sport - Sled-dog Race

Insect - Four Spot Skimmer Dragonfly  
Ocean Mammal - Bowhead Whale

## Alaskan Berries

Alphabetical Order: Blackberries, Blueberries, Cranberries, Crowberries, Huckleberries, Soapberries

### Matching

Cranberries	Akutua
Blueberries	Eskimo ice cream
Crowberries	Relishes
Soapberries	Tingaulik

## Alaska Bears

Lives in Alaska - Black Bear, Brown Bear, Polar Bear  
Webbed Front Feet - Polar Bear  
Shoulder Hump - Brown Bear  
Smallest in Size - Black Bear  
White Coat - Polar Bear  
Large Digging Claws - Brown Bear  
Pointed Head - Black Bear

## Mount McKinley

1. 5,910      2. 5,887      3. 6,524      4. 6,516

## The Last Frontier

1. C    2. B    3. A    4. E

## Alaska - The Bald Eagle

Bald eagle, prey, eight, mile, white, five, hunters

## Iditarod Checklist

1. Axe    2. Snowshoes    3. Sleeping Bag    4. Cooker    5. Dog Booties  
6. Vet Book    7. Race Promotional Items

**Answer Page Continued**

**L is for the Last Frontier Crossword**

Across

1. Bowhead Whale
2. Iditarod
3. Sitka Spruce
4. Jade
5. Hooligan

Down

1. Umiak
2. Alaska
3. Northern Lights
4. Juneau
5. Chugach

**Animals of the Last Frontier**

- |                |               |                 |              |
|----------------|---------------|-----------------|--------------|
| 1. King Salmon | 2. Moose      | 3. Killer Whale | 4. Ptarmigan |
| 5. Musk Ox     | 6. Polar Bear | 7. Bald Eagle   | 8. Hooligan  |

**Alaska Wolves**

Wolf Facts

Wolves are found in almost all areas of Alaska.  
Wolves howl to talk to each other.  
Wolves live in groups called packs.  
Wolves can travel for miles without stopping.