

Chaan Gin-gáay

Sea Mammals

Grade Levels K-2



A series of elementary level thematic units featuring Haida language, culture and history were developed in Ketchikan and Hydaburg, Alaska in 2004-6.

The project was funded by the U.S. Department of Education, Haida Language Immersion Program - Boosting Academic Achievement grant #S356A030046, awarded to the Sealaska Heritage Institute.

Lessons and units were written by a team including Jordan Lachler, project director and linguist specializing in documenting and revitalizing Native American languages. Lachler heads up the local field office of the Sealaska Heritage Institute in Ketchikan. Cheryl Holter (T'áaw Kúns) grew up in Hydaburg, raised by her grandparents, Willis and Hazel Bell and has worked with the remaining fluent Haida Elders for years. She taught the Haida language to students since returning to Hydaburg in 1990. Linda Schrack (Skíl Jáadei) grew up in Ketchikan, spending a great deal of time with her grandparents, Robert and Nora Cogo. She worked for many years in the field of early childhood education, and is an accomplished Native artist and traditional Haida dance group leader. Julie Folta, a cultural curriculum specialist with years of experience developing and teaching thematic, child-centered curriculum in rural Alaska also contributed to lessons and Annie Calkins edited final drafts of the units.

All units are available online at sealaskaheritage.org.



Sealaska Heritage Institute

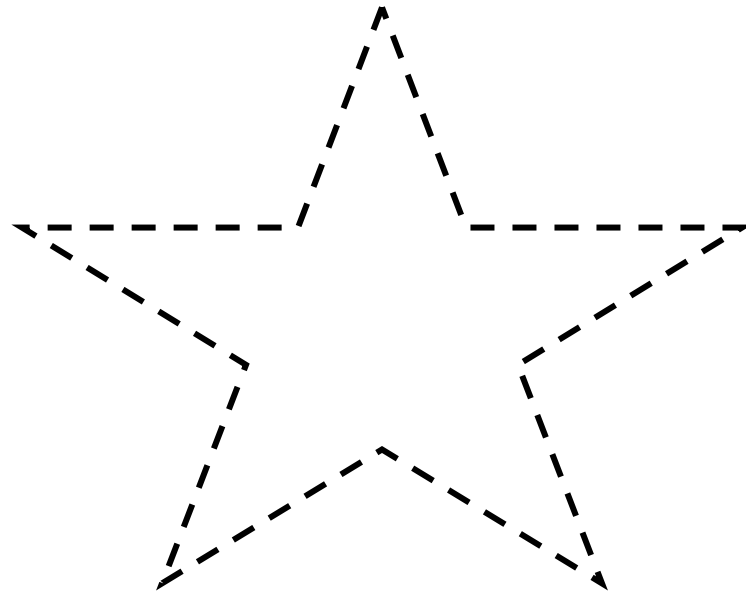
Teacher Resources

The contents of this curriculum were developed under the Haida Language Immersion: Boosting Academic Achievement (2005) grant from the U.S. Department of Education. However, the contents do not necessarily represent the policy of the Dept. of Education and you should not assume endorsement by the Federal Government

Make a cover page for sea mammals book - *Chaan Gin-gáay*. Students draw a picture of a Southeast Alaska sea mammal or use the star template to cut out 8 stars to form the Big Dipper – to represent Alaska Sea Mammals.

Chaan Gin-gáay

Sea Mammals Book



SEALS Background Information

Seals have slick, streamlined, torpedo shaped bodies. The various seals differ in size and weight. Males are generally larger than females.

Seals are stubbier than sea lions and have a more rounded snout.

Seals have short flippers. They have small heads with short noses and slit-like nostrils that close under water. Seals can see and hear well.

Every year seals shed their short hair. They have a layer of fatty blubber that acts as an energy store and provides insulation against the cold.

Seals are famous swimmers. They spend most of their lives in the water. They come to land only to bear and rear their pups and to molt. Some seals bear their young on ice. Seals are fantastic divers. They can hold their breath for much longer periods than land mammals.

The availability of resources like the seal and the ability to effectively and efficiently use them enabled Haida people to flourish. Haida's lived by fishing, hunting land and sea animals, trapping, berry picking, and trading. The coastal environment provides an abundance of resources.

Seals are not hunted from April – June because pups were born during this time. Harpoons were once used to kill harbor seals, fur seals, sea lions, porpoise and sea otter. Each clan had specific hunting territory and trade routes, which no other clan could use without permission. All parts of seals killed are used, and only what can be consumed is killed. Seals provide rich dark meat and oil to the Haida. The oil can be used for cooking and eating in much the same way we use butter and cooking oils today. Seal oil also adds flavor and texture to food. Seal blubber is esteemed a great delicacy. Seal meat and seal blubber continue to be significant foods at ceremonies.

“It was the rendered oil of seal, eulachon, and herring that supplied a large portion of the fat required in the Haida diet. These foods were rich sources of nutrients. Anyone who has ever been served a Haida meal has witnessed how the Haida people relish oil; everything – dried fish, meat, herring eggs – is dipped in oil. Oil was also used in cooking, and many types of food were put up in oil to preserve them over the winter. Oil was another dietary staple, and its high caloric content provided a long lasting source of energy.”

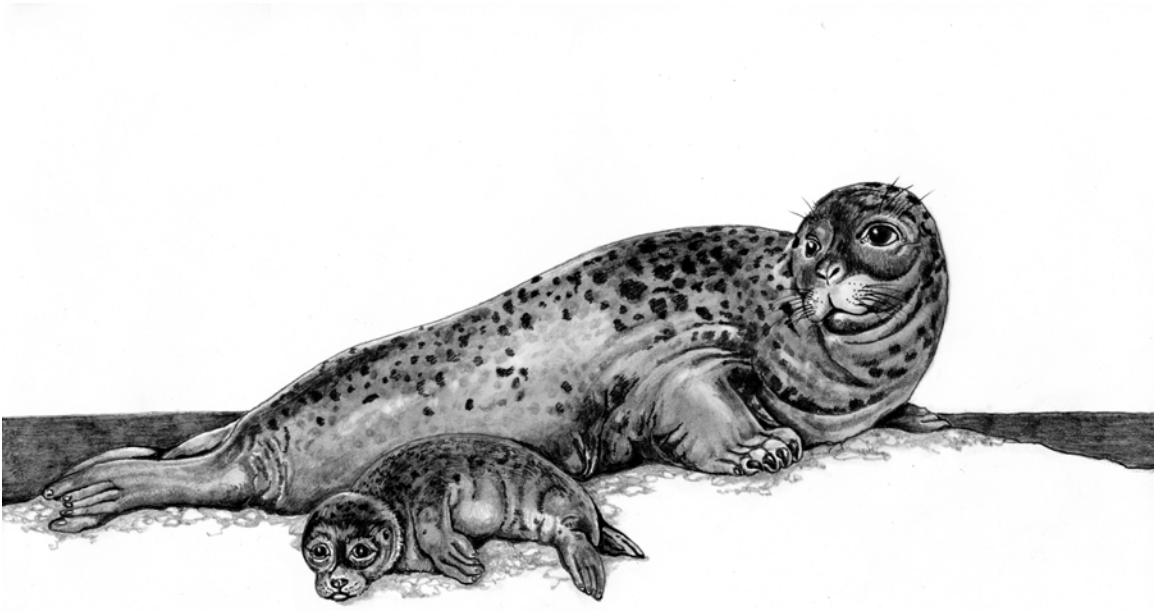
“Women prepared the various foods for winter storage or immediate consumption. They prepared seal flippers to be eaten. ... As seals were being skinned after having been brought to camp, the fat was put into containers to be sliced later. The meat was butchered in cuts to be smoked, and some of it was cooked the same day. The day after the skinning, the fat would be sliced and rendered into seal oil. The Haida method is to fry the fat. The left-overs, in the form of crispy rinds, were eaten with dry fish.”

Seal is important not only for food, but for clothing, floats, bags, the intestines can be used for string, and the bladders used for containers. The bladder of the seal is used in making floats.

The seal dish was brought out for great feasts.

1 *Haa Atxaayí Haa Kusteeyix Sitee*, Our food is Our Tlingit Way of Life (adapted)

2 *Haa Kusteeyí* Our Culture Page 435



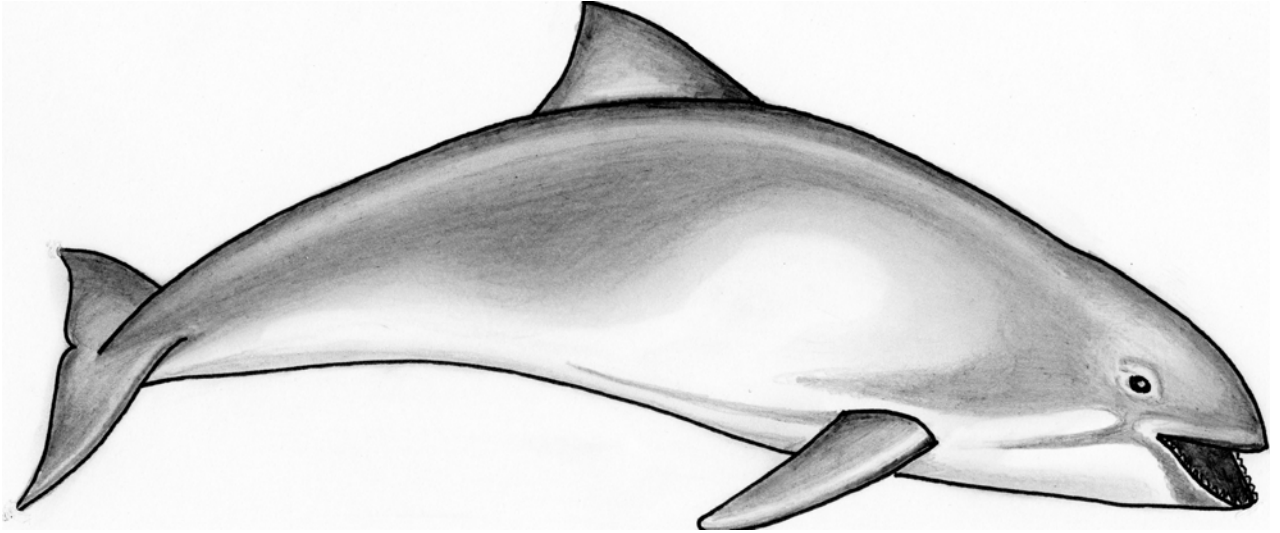
Xúud
Seal



Káyd
Sea lion



Ku
Otter



Skúl
Porpoise



Sgáan
Killer Whale

Gúus uu dǎng kǐnggang?

What do you see?

Sing to the tune Bingo

Verse 1

Lingít

T'aláng isdáalgang

Gúus uu dǎng kǐnggang?

Gúus uu dǎng kǐnggang? (3X)

(Xúud) uu HI kǐnggang.

English

We are going along.

What do you see?

What do you see?'

I see a (seal)

Hand motions

(walk in place)

(hand above eyes, searching)

(hands up & shrug shoulders)

(point to it)

Gándlaay aa uu íjjang.

It's in the water

hand motion waves w/one hand/animal motion w/ other)

(Xúud) í'waan

A big (seal)

(stretch hands apart)

Gándlaay aa uu íjjang. (3X)

It's in the water

(rounded fist bob up & down)

(Xúud) í'waan

A big (seal)

(exaggerate animal motion w/both hands)

Other sea mammal verses:

Káyǎd

Sea Lion

(close all fingers together for pointed snout

Big: tuck elbows in/move hands like flippers)

Ku

Sea Otter

(move hands by chest like opening clams/

Big: stretch way up like otter looking curious)

Skúl

Porpoise

(quick diving motion w/ hand flat & rounded

Big/many: alternate w/ both hands)

Sgáan

Killer Whale

(hand vertical like fin

Big: both hands together for fin)

Kún

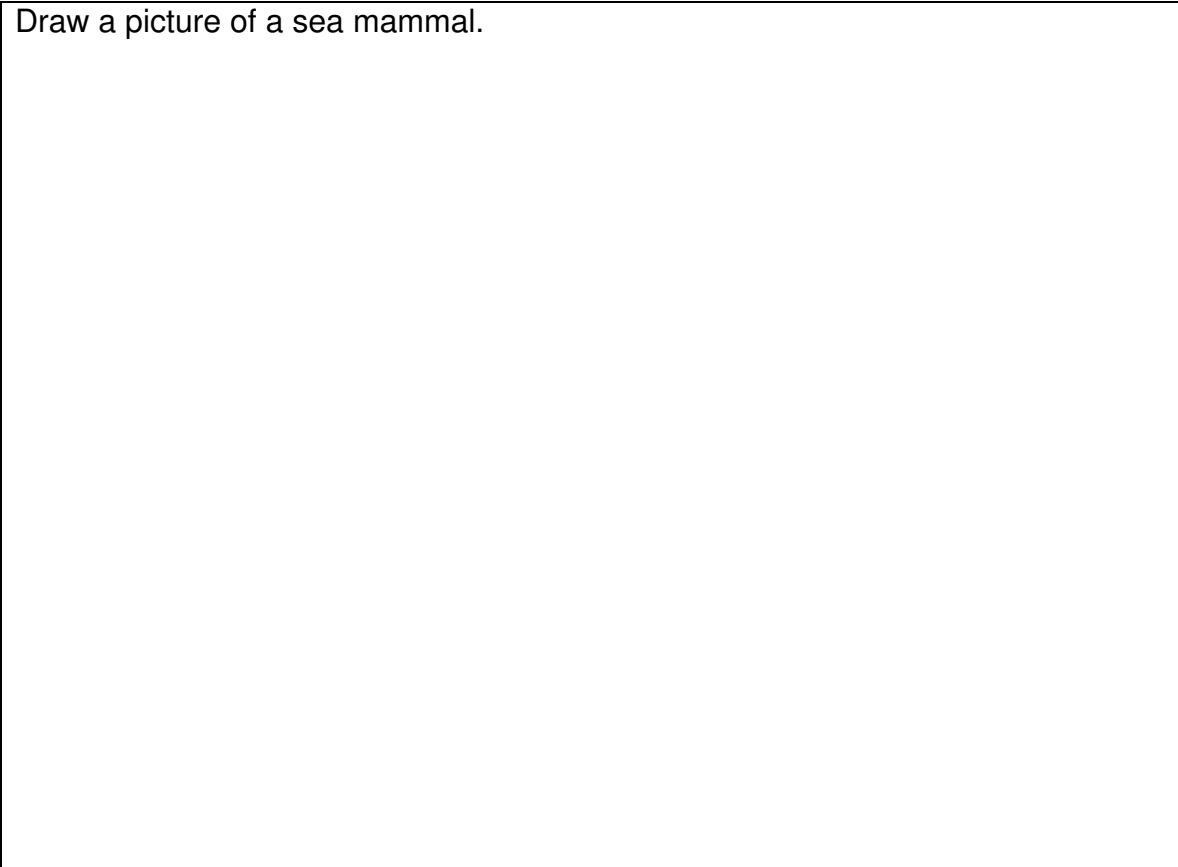
Whale

(slow diving motion w/ arm

Big: whole hand & arm straight up, flop over like whale jumping)

Name _____ Date _____

Draw a picture of a sea mammal.



A _____

is a sea mammal because _____

My Book of Sea Mammals



Name _____ hín uu díi kya'áang.

Date: Áayaad uu _____ íijang.

Χύúd
Harbor Seal



<http://www.sxc.hu/photo/510079>

Three things I know about a χύúd – harbor seal.

1. _____

2. _____

3. _____

The most interesting thing about a χύúd – harbor seal is _____

Káy
Sea Lion



www.photolib.noaa.gov/animals/index.html

Three things I know about a *káy* – sea lion.

1. _____

2. _____

3. _____

The most interesting thing about a *káy* – sea lion is _____

Ku
Sea Otter



Three things I know about a ku – sea otter.

1. _____

2. _____

3. _____

The most interesting thing about a ku – sea otter is _____

Skúl
Porpoise



Three things I know about a skúl – porpoise.

1. _____

2. _____

3. _____

The most interesting thing about a skúl – porpoise is _____

Sgáan
Killer Whale



www.photolib.noaa.gov/animals/index.html

Three things I know about a *sgáan* – killer whale.

1. _____

2. _____

3. _____

The most interesting thing about a *sgáan* – killer whale is _____

Kún

Humpback Whale



www.photolib.noaa.gov/animals/index.html

Three things I know about a *kún* – humpback whale.

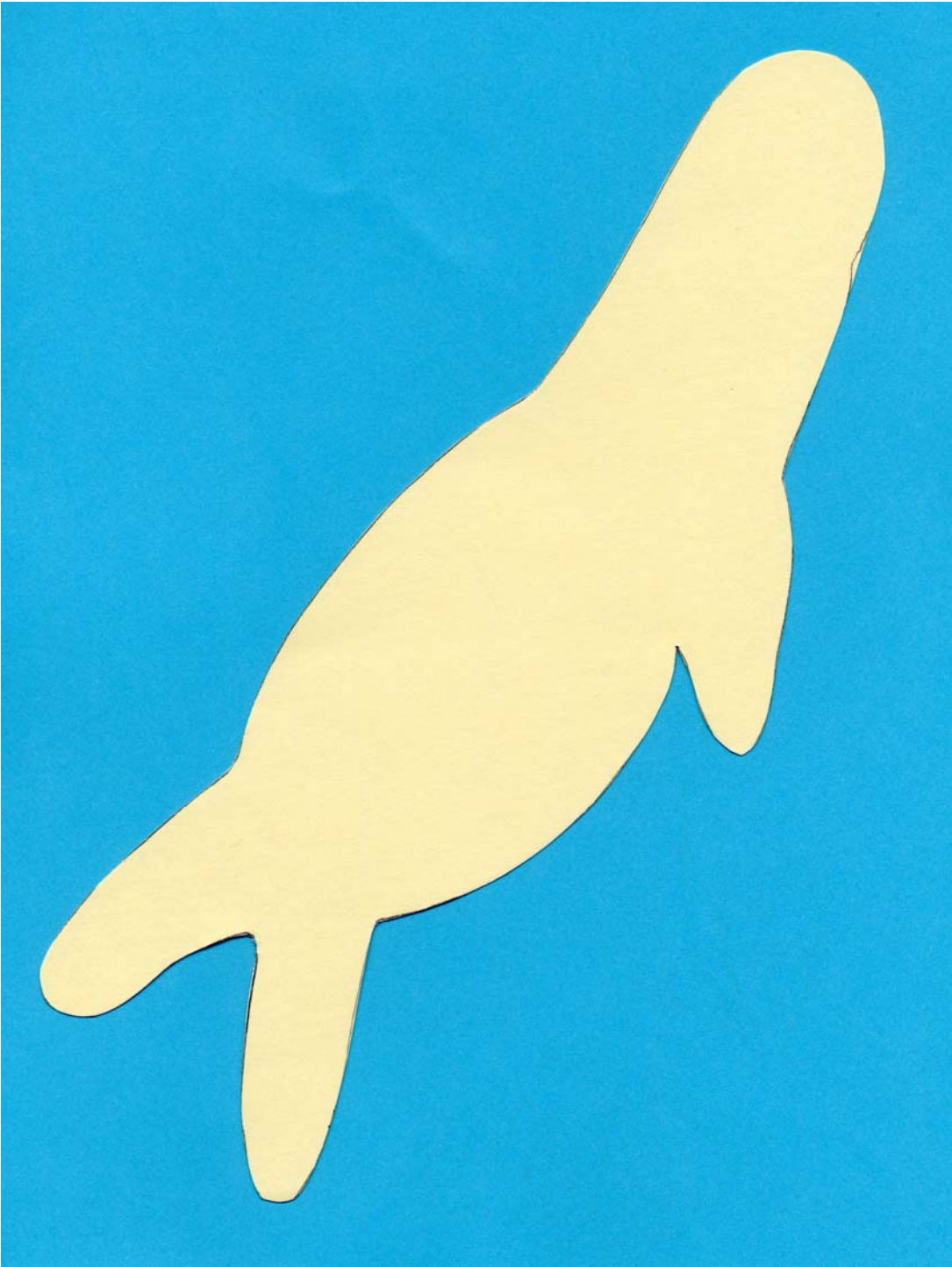
1. _____

2. _____

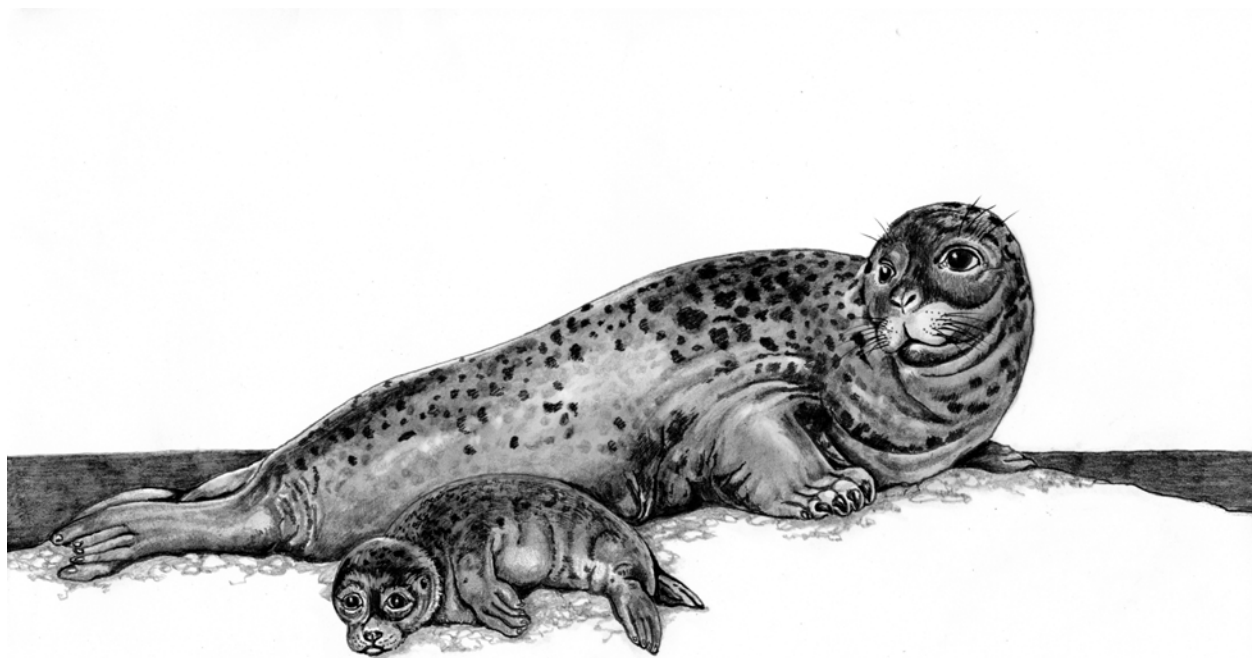
3. _____

The most interesting thing about a *kún* – humpback whale is _____

Xúud
Pattern



My Seal Book



Name _____ hín uu díi kya'áang.

Date Áayaad uu _____ íijang.



Alaska State Museum II-B-1557

St'a sk'agáa jándaa uu íijang
These are boots.

Xúut kw dǎng kǐng? Do you see seal?

Use a pencil to circle the part of the *st'a sk'agáa jándaa* (boots) that is made with seal.



Alaska State Museum II-B-1014

Gúuj *dajáng uu íijang.*

This is a wolf hat

Xúud gw *dáng k̄ing?* Do you see seal?

Use a pencil to circle the part of the *gúuj dajáng* (wolf hat) that is made with seal.



Alaska State Museum II-B-775

Táaw uu íijang.
This is a halibut hook.

Xúud gw dáng king? Do you see seal?

Use a pencil to circle the part of the *táaw* (halibut hook) that is made with seal.



Alaska State Museum 94-15-4

Kast'as uu íijang.
This is a headband.

Xúud gw dǎng kǐng? Do you see seal?

Use a pencil to circle the part of the kast'as (headband) that is made with seal.



Let's explore footwear

- What boot will keep feet dryer? Traditional Seal Skin or Rubber Boots
- How are traditional seal skin boots made?
- What do you notice about how they are sewing together
- What happens to seal skin boot and rubber boots when you step on something sharp.

Seal Oil Preservation Experiment

My name _____
 hín uu dí kya'áang.

Date Áayaad uu _____
 íjjang.

	Plain Berries	Berries in Seal Oil
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
	Total:	

SEA LIONS Background Information

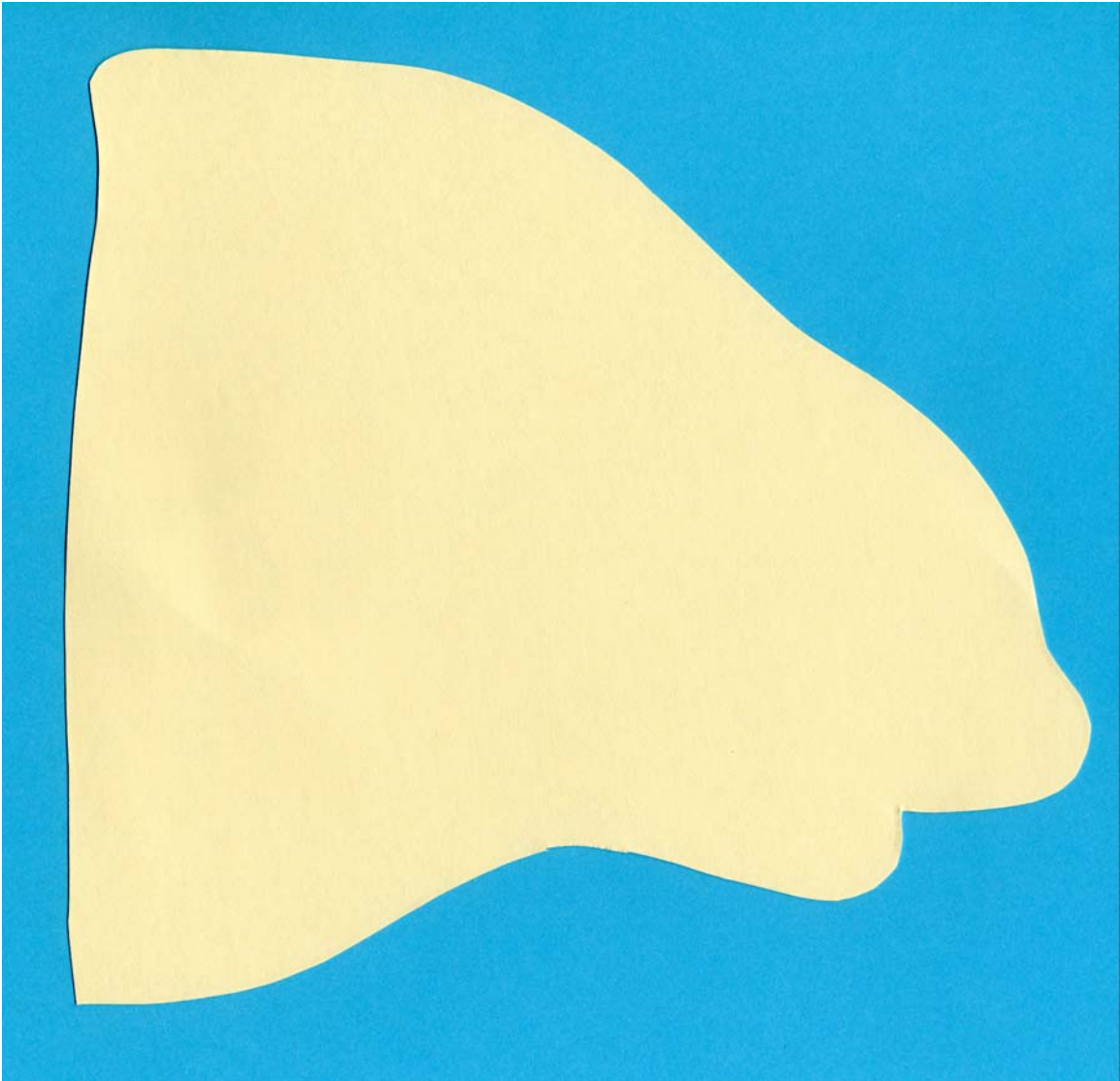
Sea lions are the largest of all eared seals. They are named for George Wilhelm Stellar, the naturalist that accompanied the 1741 expedition to Alaska.

Sea lions are carnivorous, feeding on a wide variety of fish and cephalopods. They can stay under water for 4 – 5 minutes in search of food. The only natural enemy of the seal lion is the killer whale. The average life span of a sea lion is 20 years.

Sea lions are covered with short 1” hair on its body. The male sea lion have slightly longer hair around the neck and resembles a mane. The male sea lion averages 12’ in length and weighs 1500 pounds. The female sea lion is 8 – 9’ in length and weigh 600 – 700 pounds

Young are called pups and are born in the spring. Pups are about four feet long at birth and weigh 40 – 50 pounds. They are dark brown to black until 4 –6 months when they molt. For over 1 1/2 years they remain with their mothers.

Káyd
Pattern



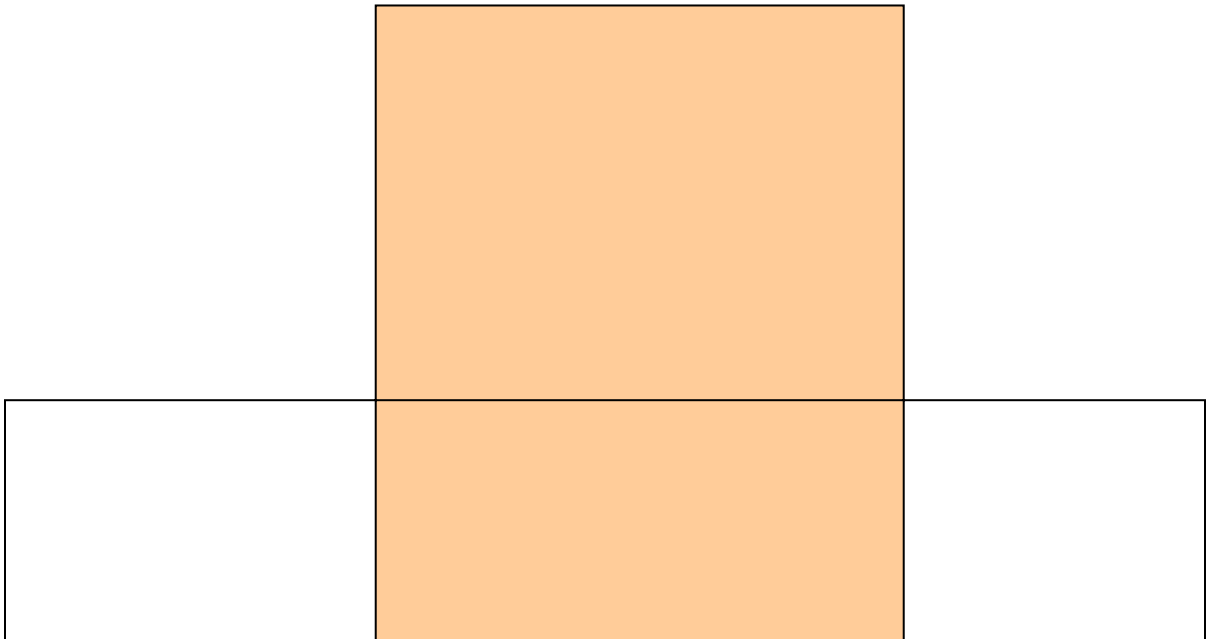
Sakíid
Pattern



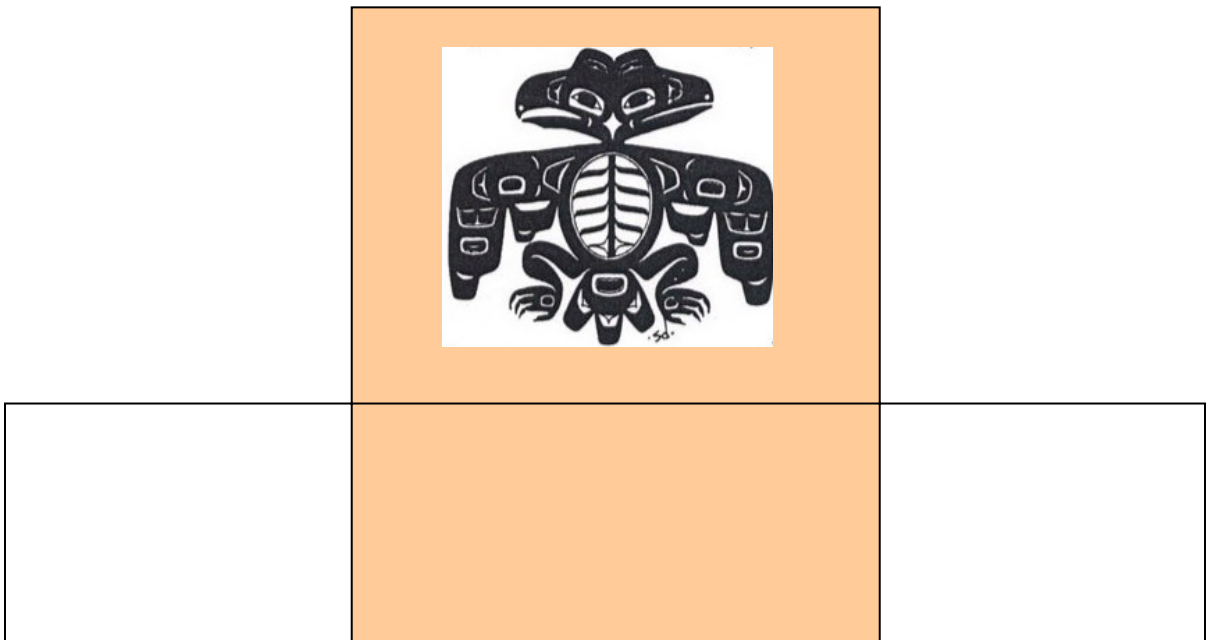
2 x 14 inch Brown construction paper

2 x 14 inch cardboard box strip

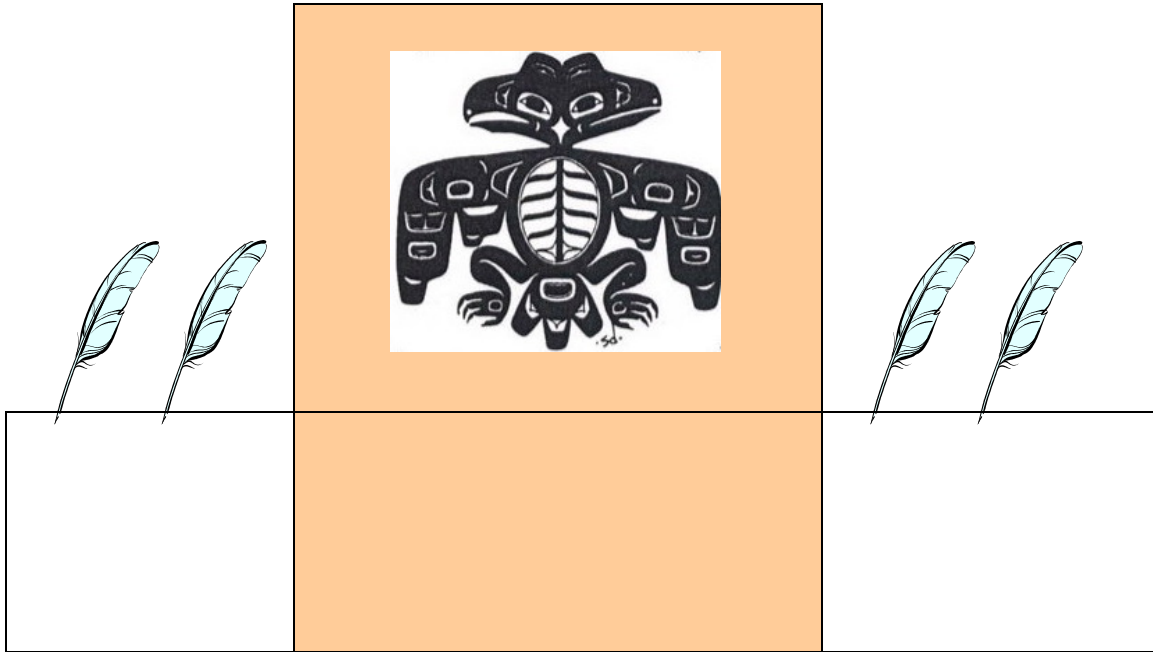
1. Glue these two 2 x 14 inch pieces together.
2. Add 5 x 6 inch frontlet design and glue to 2 x 14 inch strip.



3. Glue design to frontlet



4. Add feathers around the headband.



5. Add foamee to strip and staple to size.
6. Staple white 7 x 11 inch white fabric to back of headdress. Add fake ermine tails – white faux fur cut into 1 inch strips



7. Finished *sakíid*.



Sakíid design



Dukt'ootl' Strong Man

An old chief was preparing to go on a hunt to kill sea lions. To make himself strong he bathed in the sea and then would go to a tree and try to pull out a limb. After that he would try to twist a tree from its roots. When he was strong enough to do this he would consider himself strong enough to go out and hunt the sea lions.

The chief had a nephew who was very lazy and weak. The people of the village called him *Dukt'ootl'*, which means black skin because he never bathed and slept next to the fire. One day *Dukt'ootl'*'s aunt told him that he was a disgrace because he was so lazy.

Dukt'ootl' decided to do something about it and went out at night when the others were asleep so that he could make himself strong. He didn't let anyone else know what he was doing so that he could surprise them.

One night while working on his strength he heard a whistle that sounded like a loon. He went toward the sound and saw a short man.

The man threw him to the ground and said, "I am Strength. I have come to help you."

The next night *Dukt'ootl'* saw the man again and went to him. The man said, "Don't throw me down because now you have strength." He told *Dukt'ootl'* to pull out the limb of the tree that his uncle, the chief, had been working on and put it back in the tree so that no one would know. He also twisted the other tree so that it was easy to twist.

The next day, his uncle easily pulled the limb and twisted the tree. Now he thought himself strong enough to go hunt sea lions.

Many of the village men climbed into the canoe. *Dukt'ootl'* forced them to take him along, too.

When they reached the sea lions, the chief got out and killed a small sea lion. He then tried to kill a large sea lion but it threw him into the air and the chief

was killed.

Dukt'ootl' then decided to show his strength. He got up and walked the length of the canoe and as he stepped on the seats the seats broke, so great was his strength.

The other hunters were frightened because they had never seen a man with so much strength.

Dukt'ootl' went to the sea lions and killed many by just stepping on them. Then he took the large sea lion that had killed the chief and tore it in two.

After this *Dukt'ootl'* was known as a very strong man. The villagers who had teased him were ashamed. From that day on, he was called by his real name, *At kaháas'i*.

For full Tlingit version see: Dukt'ootl, Frank Johnson in Haa Shuká, Our Ancestors pg. 138-151 Dauenhauer, 1987.

SEA OTTERS Background Information

Sea otters live in shallow waters along the shores. They favor waters adjacent to rocky coasts near points of land or large bays where kelp beds occur. . At one time they were hunted to near extinction. The first international endangered species agreements in 1911 protect sea otters.

Sea otters are related to mink and river otters. Adult males weigh 70-90 pounds. Females average 40-60 pounds. They can reach a length of 9 1/2 feet at adulthood.

The sea otter is intelligent, resourceful and agile. It is a very playful animal. The fur of a sea otter is one of the finest in the world, consisting of a very dense under fur that is one inch long. Unlike seals, sea lions, killer whales or humpback whales, sea otters do not have a thick insulating layer of blubber for protection. Instead sea otters depend on a dense rich coat of fur. Sea otters depend on air trapped in the fur for maintaining body heat. For this reason sea otters spend much of their time grooming. If their fur becomes matted or soiled, it will result in loss of body heat and then death.

The normal diet of a sea otter includes sea urchins, crabs, mussels, octopus, and fish. One of the most important activities in a sea otters day is searching for food. They are adept underwater hunters. Rounded molars are perfect for crushing. A sea otter eats often and will eat what is readily available and easy to catch. After diving 5-250 feet the sea otter will return with food, roll on its back, place the food on their chest and eat it piece by piece. Sea otters use a stone tool for eating, grasping a stone between its forepaws and bangs it against the edge of the shell. Between bites a sea otter may roll in the sea to clean itself of debris and keep its fur clean. It may use the same stone over and over again. The stone is kept in a flap of skin under its arm. It is able to use its forepaws like hands because they are short and stiff, helping it to handle food. The hind feet are webbed and adapted for swimming and help propel it through the water. Their ears and nostrils close when swimming underwater.

Sea otters do not migrate and do not travel far unless an area becomes overpopulated and food is difficult to find. In order to stay in an area an abundant source of food is necessary.

Pups have a yellowish coloration at birth because they are covered with a dense brownish fur and long, silky, yellowish-tipped guard hairs. Adult females will have on pup in a breeding cycle, with the pup born in late spring.

Stiff whiskers are sensitive to water turbulence and alert the otter to nearby prey. Sea otters are preyed upon by eagles and killer whales.

Native people hunted the sea otter all along Southeast Alaska, such as, Shelikof Bay, Lituya Bay, and Kelp Bay.

My Seal Lion Book



Name _____ hín uu díi kya'áang.

Date Áayaad uu _____ íjang.



Alaska State Museum 95-19-1

Táw táawaay uu íjjang.
This is a grease dish.

Káyd gw dǎng kǐng? Do you see a sea lion?

Use a pencil to circle the sea lion.



Sheldon Jackson Museum SJ-I-A-568

Táw táawaay uu íijang.
This is a grease dish.

Káyd gw dǎng k̄ing? Do you see a sea lion?

Use a pencil to circle the sea lion.



Alaska State Museum II-B-1672

Gáats' uu íijang.
This is a house post.

Káyd gw dǎng k̄ing? Do you see a sea lion?

Use a pencil to circle the sea lion.



Alaska State Museum II-B-1799

Gaayhldáa dajangáay uu íijang.
This is a helmet.

Káyd gw dǎng king? Do you see a sea lion?

Use a pencil to circle the sea lion.

Name _____

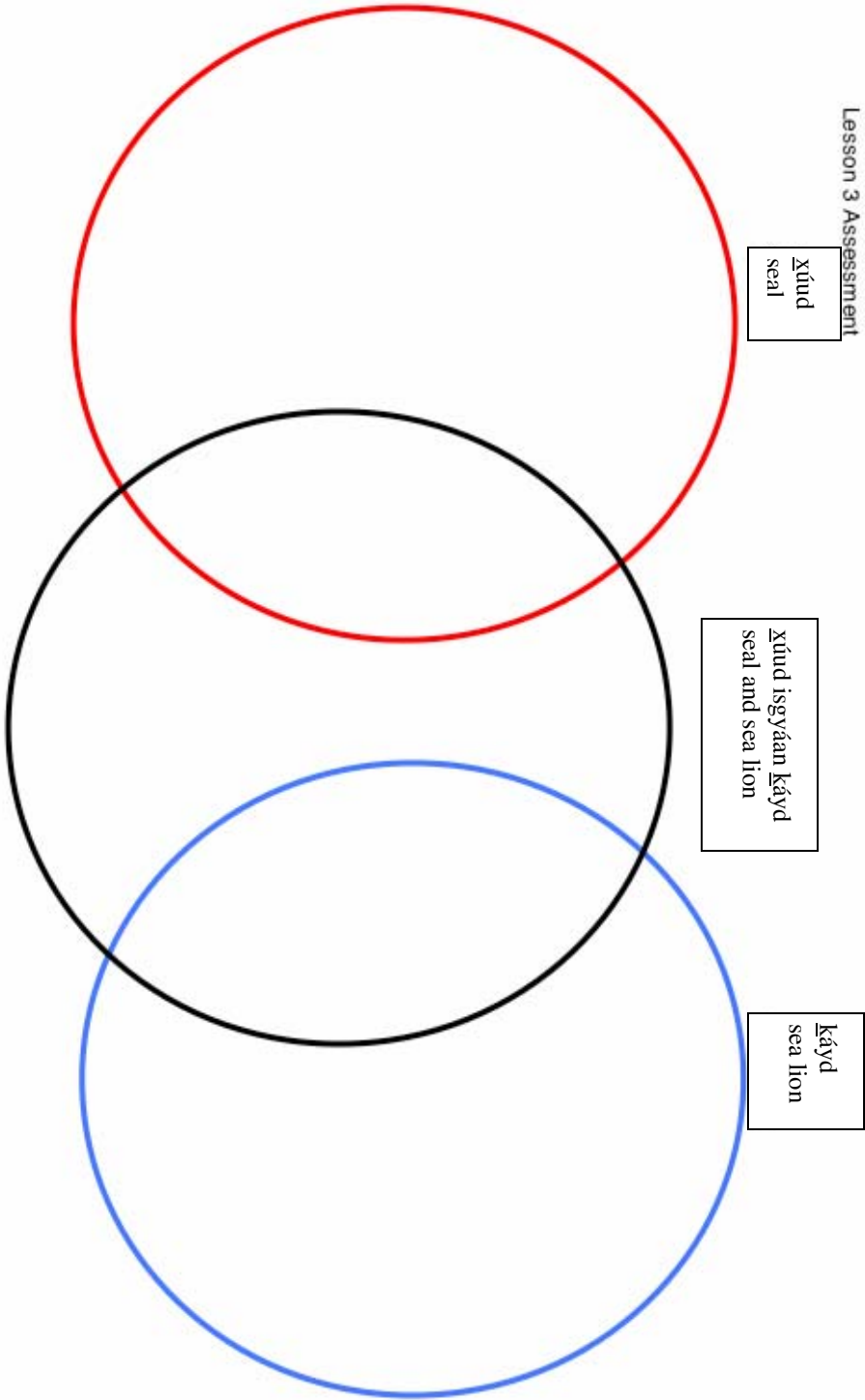
Date _____

Lesson 3 Assessment

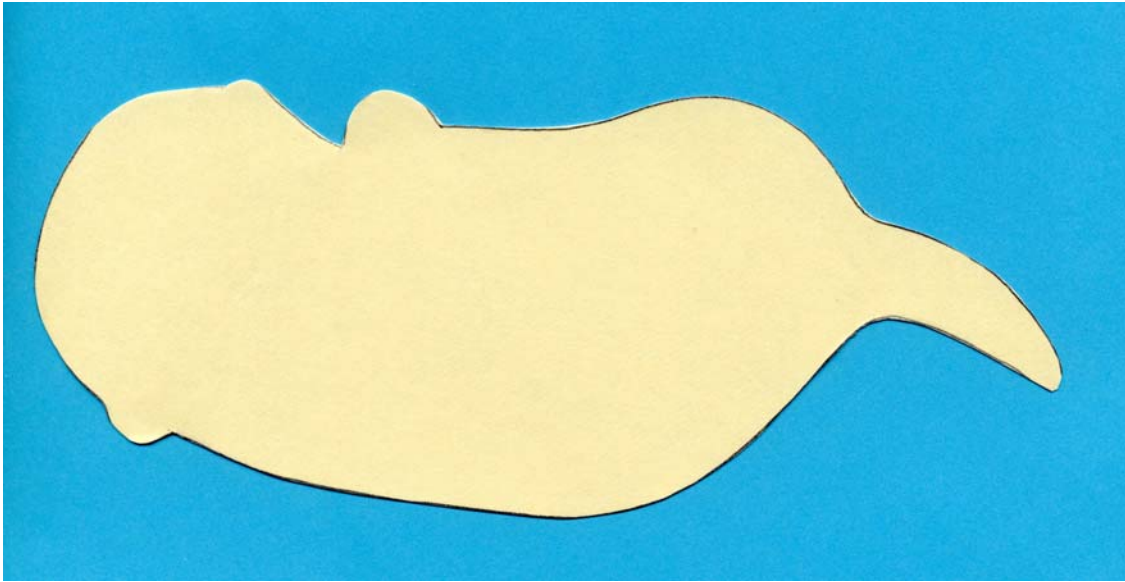
xúud
seal

xúud isgyán káyv
seal and sea lion

káyv
sea lion



Ku
Pattern



My Sea Otter Book



Name _____ hín uu díi kya'áng

Date Áayaad uu _____ íijang.



Alaska State Museum II-B-802

Táw táawaay uu íijang.
This is a grease dish.

Kugyáa gw dáng king? Do you see a sea otter?

Use a pencil to circle the sea otter.



Alaska State Museum II-B-167

Táaw uu íijang.

This is a halibut hook.

Kugyáa gw dáng king? Do you see a sea otter?

Use a pencil to circle the sea otter.



Gaayhldáa dajangáay uu íijang.
This is a helmet.

Kugyáa gw dǎng king? Do you see a sea otter?

Use a pencil to circle the sea otter.

PORPOISES
Background Information

Porpoises are the smallest type of whale. They live in shallow waters along the shores. They have a pointed nose and sleek streamlined body. Porpoises have teeth and a single blowhole. They have a small triangular shaped dorsal fin. They are usually in small groups of two to five individuals.

Skúl
Pattern



KILLER WHALES Background Information

Killer whales are found in oceans all over the world. They are the largest member of marine mammals known as dolphins.

They are black on top, white underneath, and have white patches behind their eyes. A killer whale's color helps to camouflage in the water. The black and white color helps them attack prey. Animals looking down on an orca may not see it because the whale's dark back blends with the dark water below. While the white underside blends in with the light streaming down from the surface, thus making it hard to spot.

They have a large pointed fin, the dorsal fin, which stands straight up from their backs. A curved dorsal fin is a female a straight a male. The dorsal fin on a female usually is not more than three feet in height while the males can be six feet in height. An adult killer whale is approximately 27' long and can weigh as much as 10 tons. Females are generally smaller and weigh 3,000 – 8,000 pounds. Calves, or baby killer whales, weigh approximately 400 pounds at birth and are eight feet long. The mother helps her calf swim to the surface for its first breath. A thick layer of blubber helps keep the warm in the cold water.

The gray saddle area often found behind the dorsal fin is used to identify individual whales. Killer whales rest at the surface when tired. They have good eyesight.

Killer whales have big appetites. Orcas are efficient hunters that eat a very diverse diet of fish, squid, sharks, marine mammals (including whales and seals), octopi, and birds (penguins and gulls). They have even been known to attack other large whales. Their jaws have approximately 40 – 52 teeth that are three inches long and one inch in diameter, but some are longer. They have 10-13 pairs of large, interlocking conical, enameled teeth distributed in BOTH the upper and lower jaws (for a total of 20 to 26 pairs, so the orca has from 40 to 52 teeth). The teeth curve inwards and backwards - this helps the orca catch its prey. Members of a pod frequently cooperate in hunts. An average-sized orca will eat 551 pounds of food a day.

Killer whales are one of the few sea mammals to kill other mammals. Transient killer whales prey on seals and sea lions while the resident whales eat salmon, herring, halibut, and cod. Even though they are mean in open seas, in captivity they are friendly to man and can be easily trained. Killer whales travel in groups or pods.

One of the reasons why we find whales interesting is because they demonstrate a broad range of behaviors when at the ocean surface. Scientists use terms such as "breaching," "spy hopping," and "spouting" to discuss cetacean behaviors.

Words to know about cetacean behavior:
(from the National Marine Laboratory)

Breaching: The term used when cetaceans leap clear out of the water. Whales often display this behavior.

Flipper or **fluke slapping:** Occurs when a cetacean slaps the water with its flipper or fluke (a fluke is the word for a whale tail). This sometimes creates a very loud sound, which has been described as sounding like a gun shot.

Fluke waving or fluking up: When the tail is raised vertically out of the water, this behavior is called fluke waving or "fluking up."

Porpoising: This is a behavioral term to describe an animal moving in and out of the water in a series of high-speed leaps. Whales have been observed porpoising.

Spouting or blowing: Whales must breathe air just like humans. However since cetaceans live in water, breathing is a little more difficult for them than it is for us. Most whales can hold their

breath for prolonged periods of time. To take a breath whales must swim to the surface and exhale through their blowhole. This action has been dubbed spouting, but is also called blowing. Different species have characteristic spouts, which often helps people identify whales.

Spy-hopping: When a whale head sticks its head straight up out of the water. Whales use their strong flukes to propel their heads out of the water so that the animal can look at his/her surroundings.

Sounding: The term used for a whale diving. Each species has a distinctive way of diving. Most whales take a few breaths, arch their backs, raise their flukes and dive deeper into the water.



Transient
Killer Whale



Resident
Killer Whale



<http://www.photolib.noaa.gov/animals/index.html>

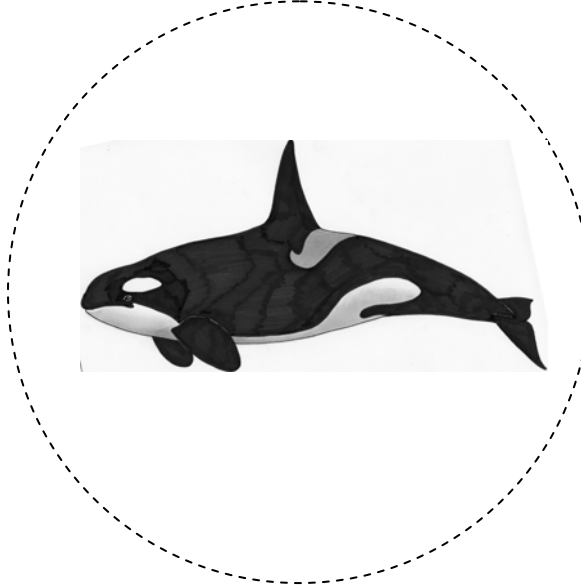
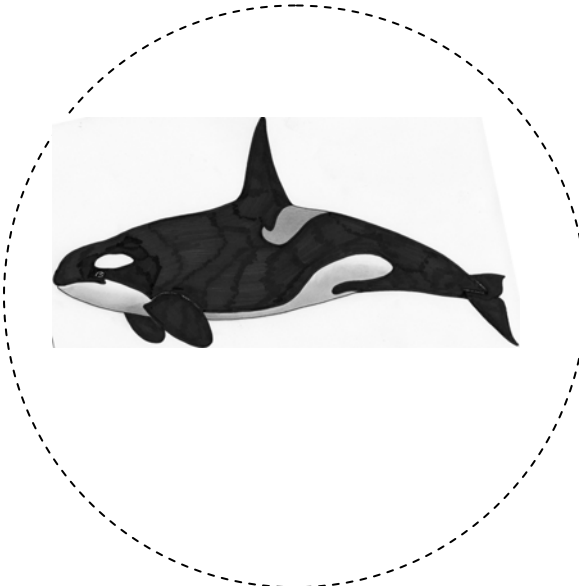
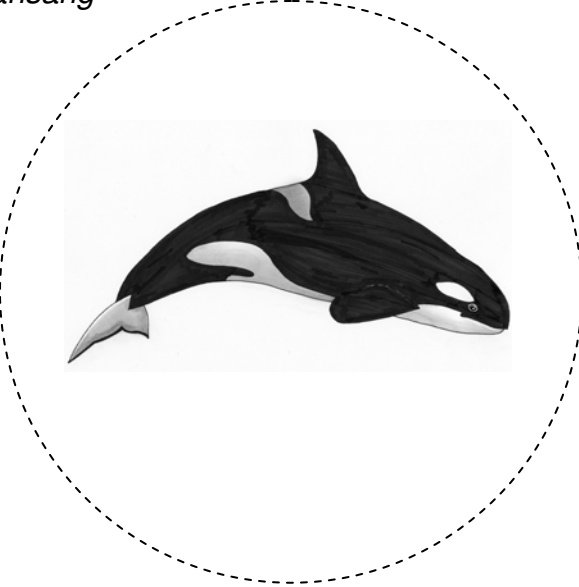
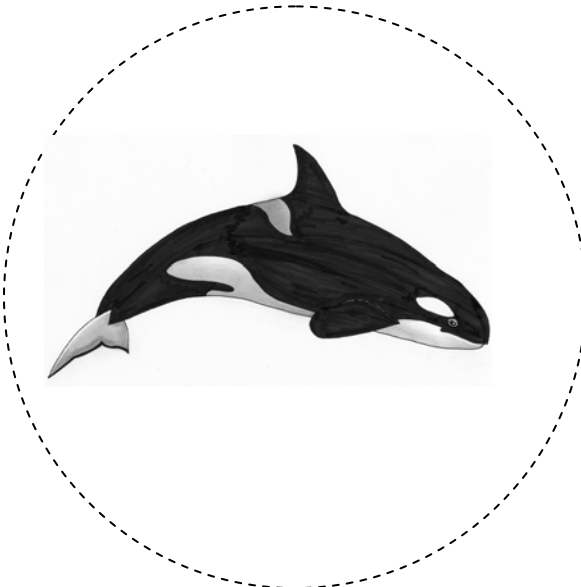


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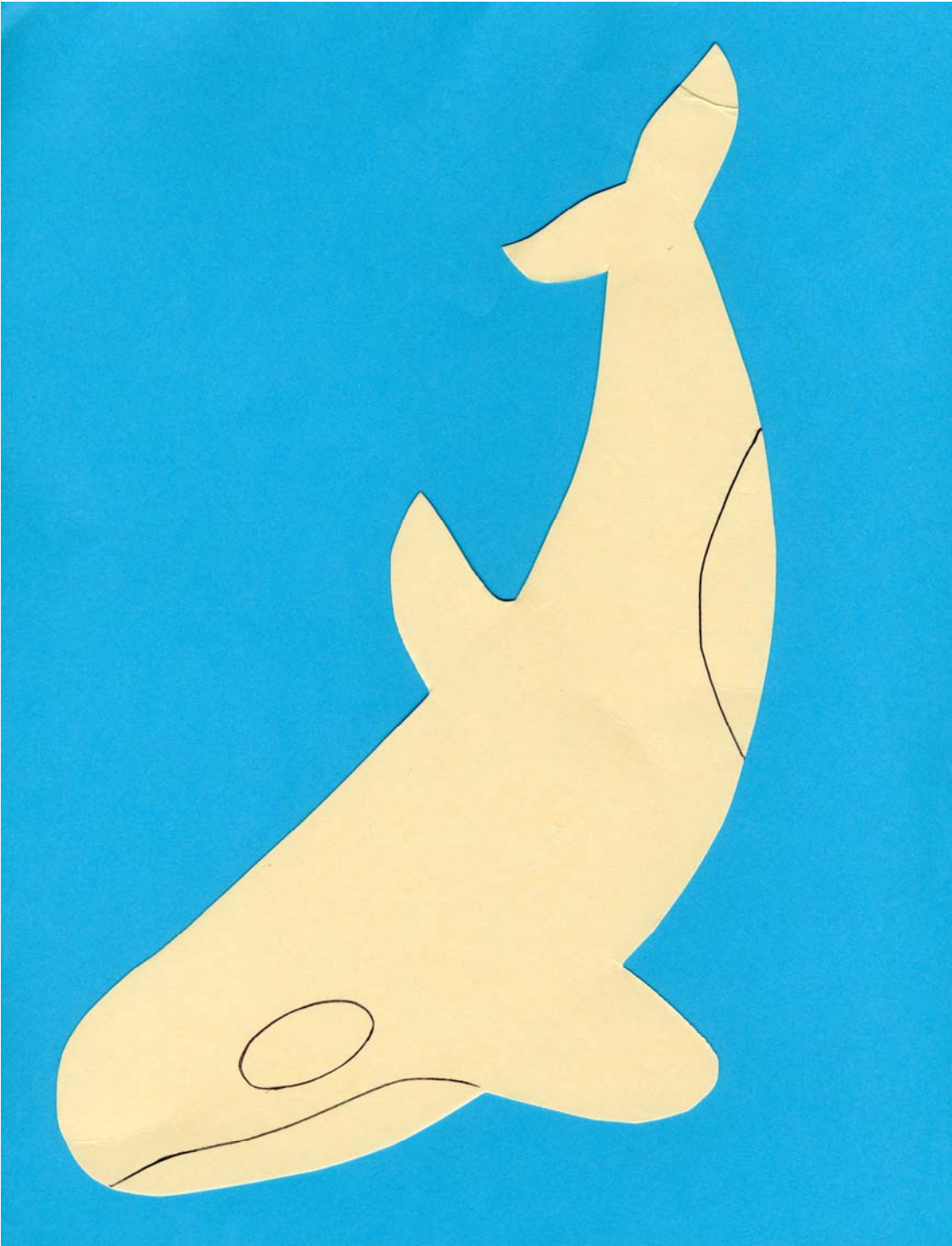
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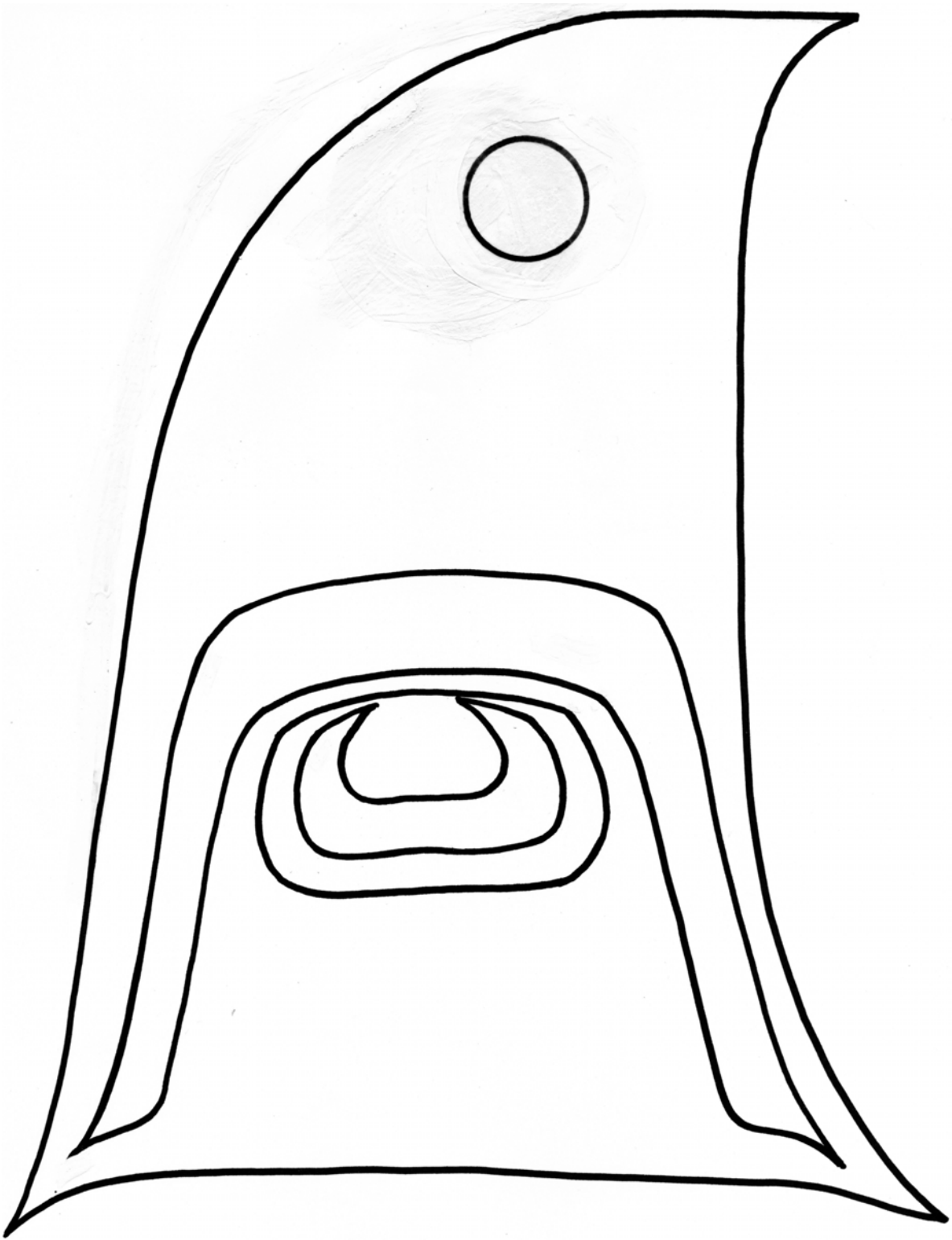
Sgáan Stánsang

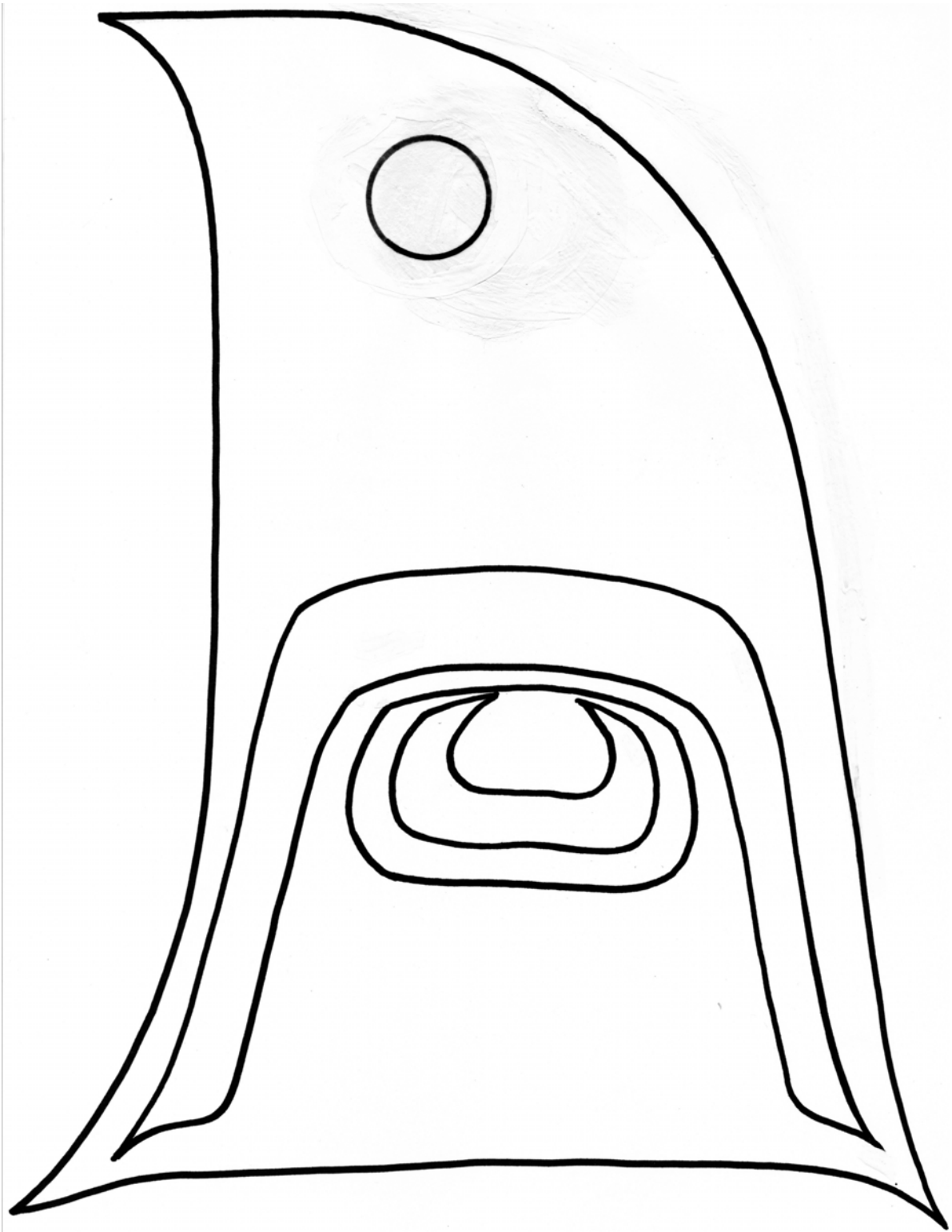


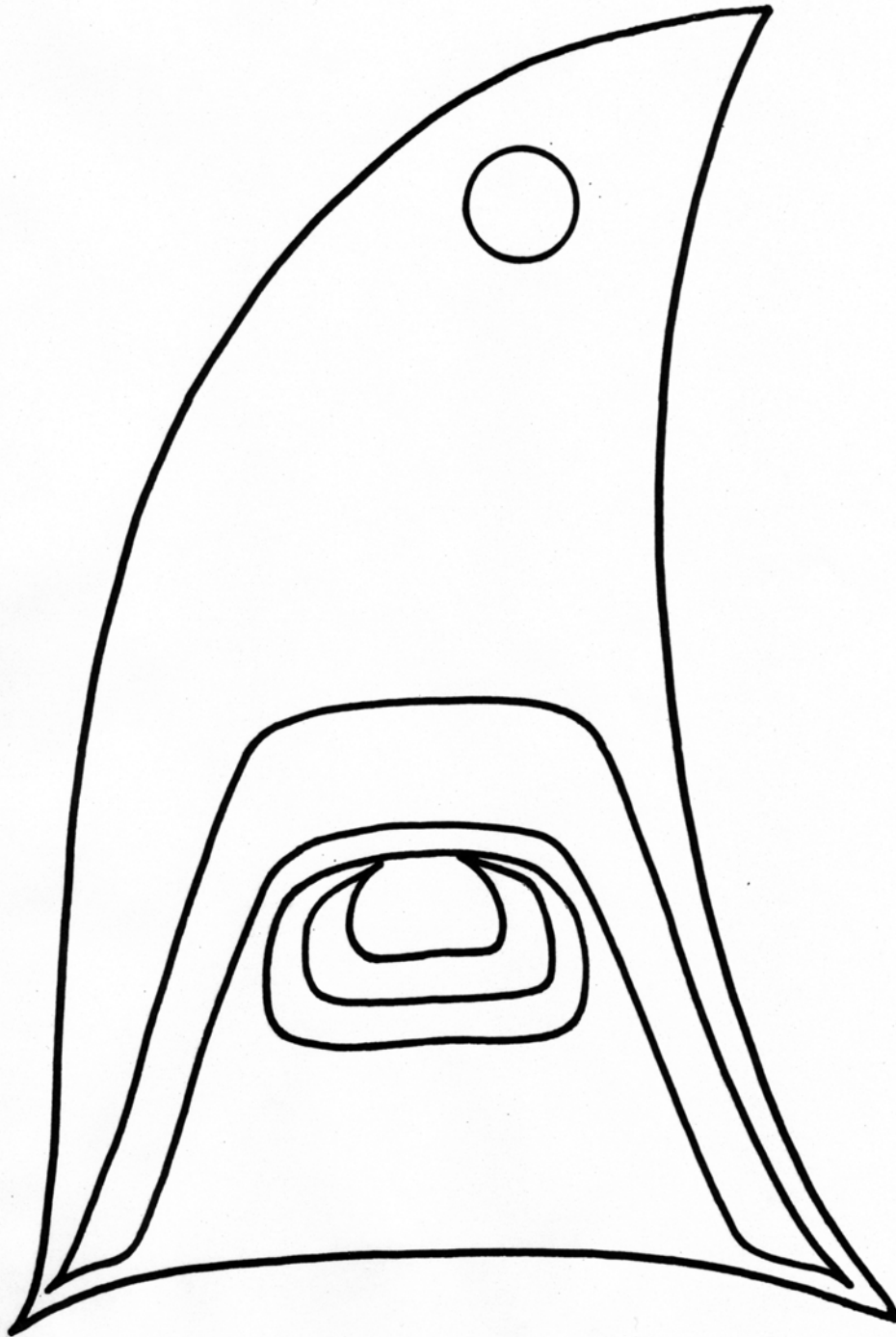


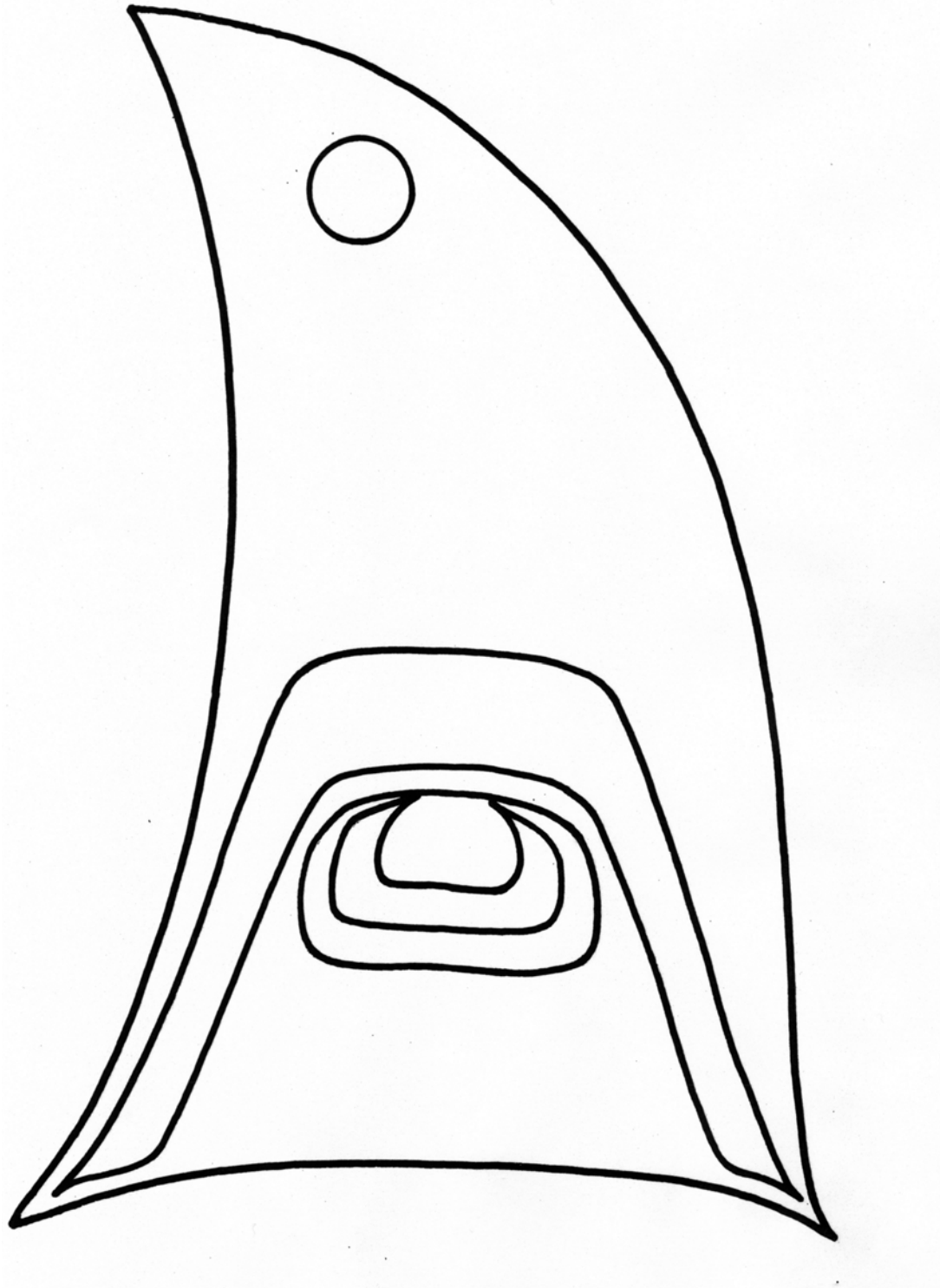
Sgáan
Pattern











Name _____ Date _____
hín uu dǐi kya'áang *Áayaad uu _____ íijang*

Label a Killer Whale



<i>Kagán sk'ajáaw</i>	Blowhole
<i>Hlgán</i>	Dorsal fin
<i>Xyáay</i>	Flippers
<i>Hlk'yáad</i>	Flukes
<i>Xángii</i>	Eyes
<i>Xahlíi</i>	Mouth

My Killer Whale Book



Name _____ hín uu díi kya'áang

Date Áayaad uu _____ íjjang.



Alaska State Museum II-B-494

Kigw uu íijang.

This is a basket.

Sgáan gw dǎng kíng? Do you see a Killer whale?

Use a pencil to circle the killer whale.



Alaska State Museum II-B-1501

Táaw uu íijang

This is a halibut hook.

Sgáan gw dǎng kǐng? Do you see a Killer whale?

Use a pencil to circle the killer whale.



Alaska State Museum II-B-1018

Sakíid uu íijang.

This is a headdress.

Sgáan gw dǎng ḱing? Do you see a Killer whale?

Use a pencil to circle the killer whale.



Sheldon Jackson Museum SJ-I-A-740

Núu gwáahl uu íijang.

This is an octopus bag.

Sgáan gw dǎng ḱing? Do you see a Killer whale?

Use a pencil to circle the sea otter.

Alaska State Museum II-B-1531



Náaxiin uu íijang.

This is a Chilkat Robe.

Sgáan gw dág ḱing? Do you see a Killer whale?

Use a pencil to circle the killer whale.

HUMPBACK WHALES

Background Information

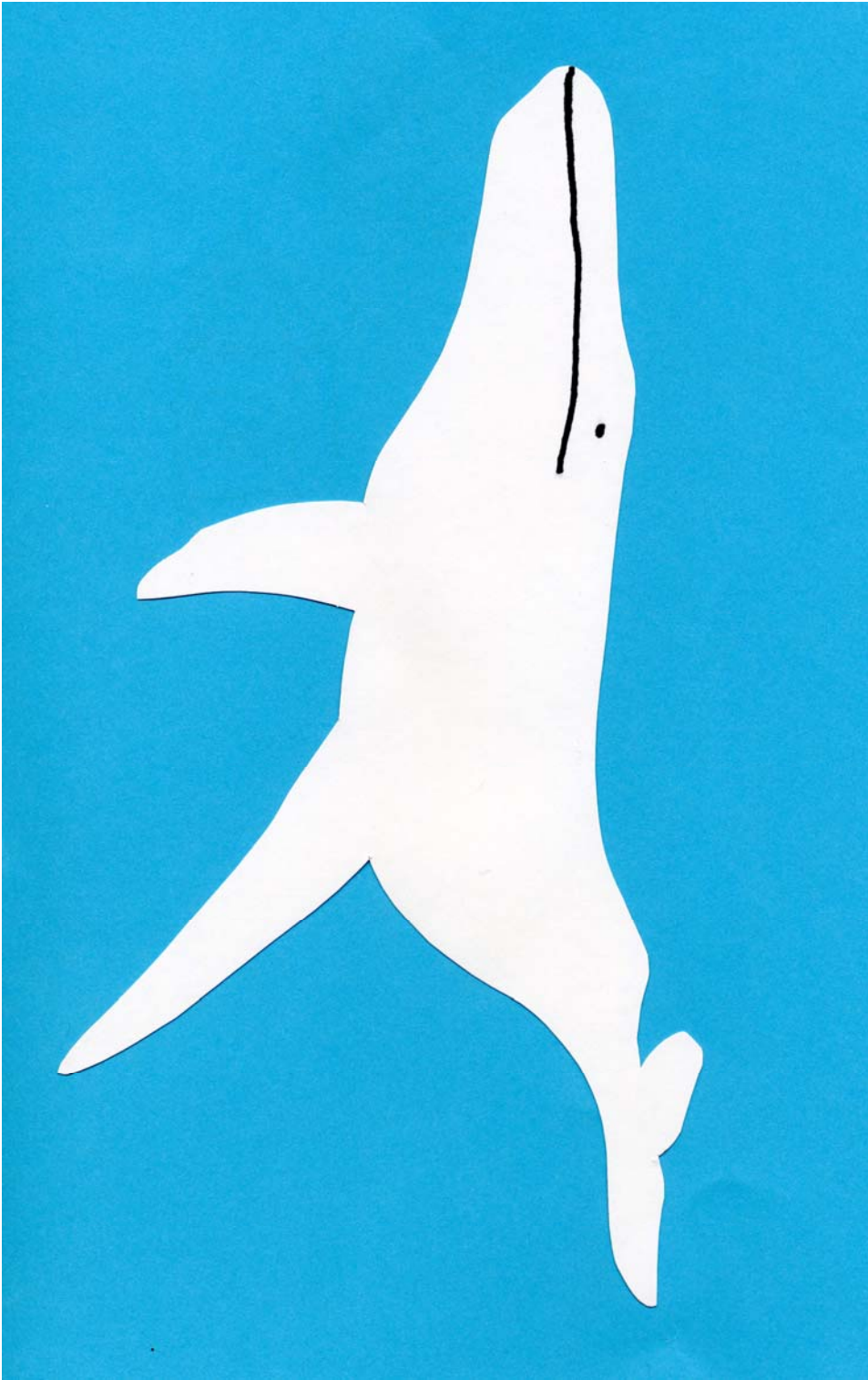
The humpback whale is short and fat and has longer flippers than other whales. It is a friendly creature. Young humpback whales will come right up to ships and swim around under them to see what is going on. Male humpback whales throw their 50-foot long bodies out of the water and fall back on their sides. The splash is big and can be heard miles away! Sometimes they stand upside down in the water and hit their tails on the waves.

The humpback whale, like the blue whale, is a type of whale called baleen. Baleen whales have no teeth. They have fringe plates in their jaws that act as a sifter. The whale takes big gulps of seawater and with its big tongue pushes the water out through the baleen. Lots and lots of tiny fish are caught in the baleen.

Whales migrate to Hawaiian waters in the winter, to have their babies. They migrate north in the spring and summer.

While Haida people did not hunt whale, there are stories of salvaged whales being consumed.

Kún
Pattern



Name _____ Date: _____

Humpback Whale Problem Solving

A	There are nine whales.
B	They are all working together.
C	How many flukes, flippers and mouths are in the area?
D	Draw pictures or marks of them all to show your work.
E	Write a number sentence to show your work.

Number Sentence:

Staying Warm Without Blubber

5 Minutes										
4 Minutes										
3 Minutes										
2 Minutes										
1 Minute										
Minutes hand in water without blubber	Name & Temperature	Name & Temperature	Name & Temperature	Name & Temperature	Name & Temperature	Name & Temperature	Name & Temperature	Name & Temperature	Name & Temperature	Name & Temperature



Dáa gw gudáng us?
Can You Hear This?

Name _____ Date _____

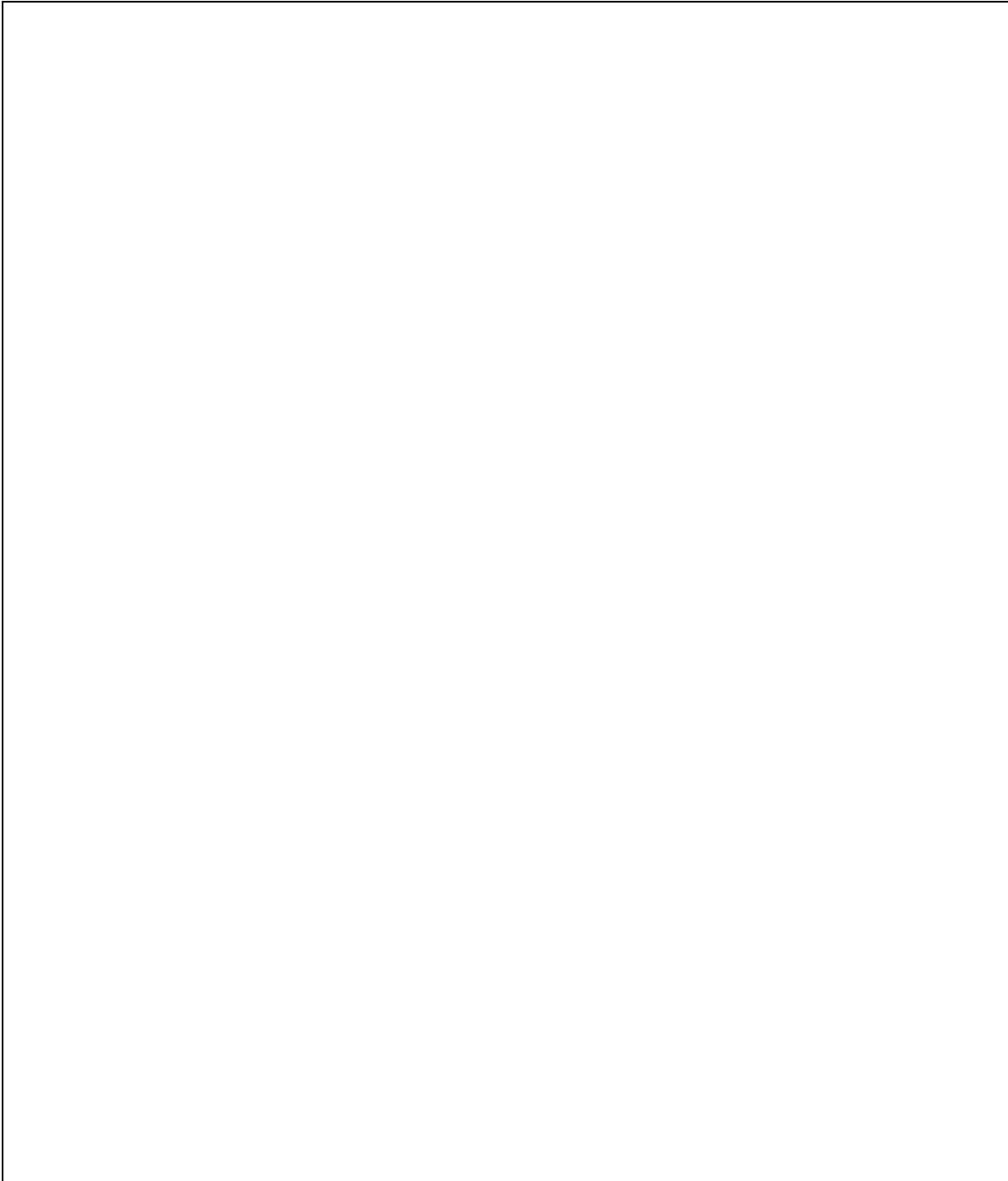
1. _____
2. _____
3. _____
4. _____
5. _____
6. _____



Museum Visit
Scavenger Hunt Activity

I found an artifact with sea lion whiskers

Here is what it looks like.



I found an artifact with sea otter fur.

Here is what it looks like.



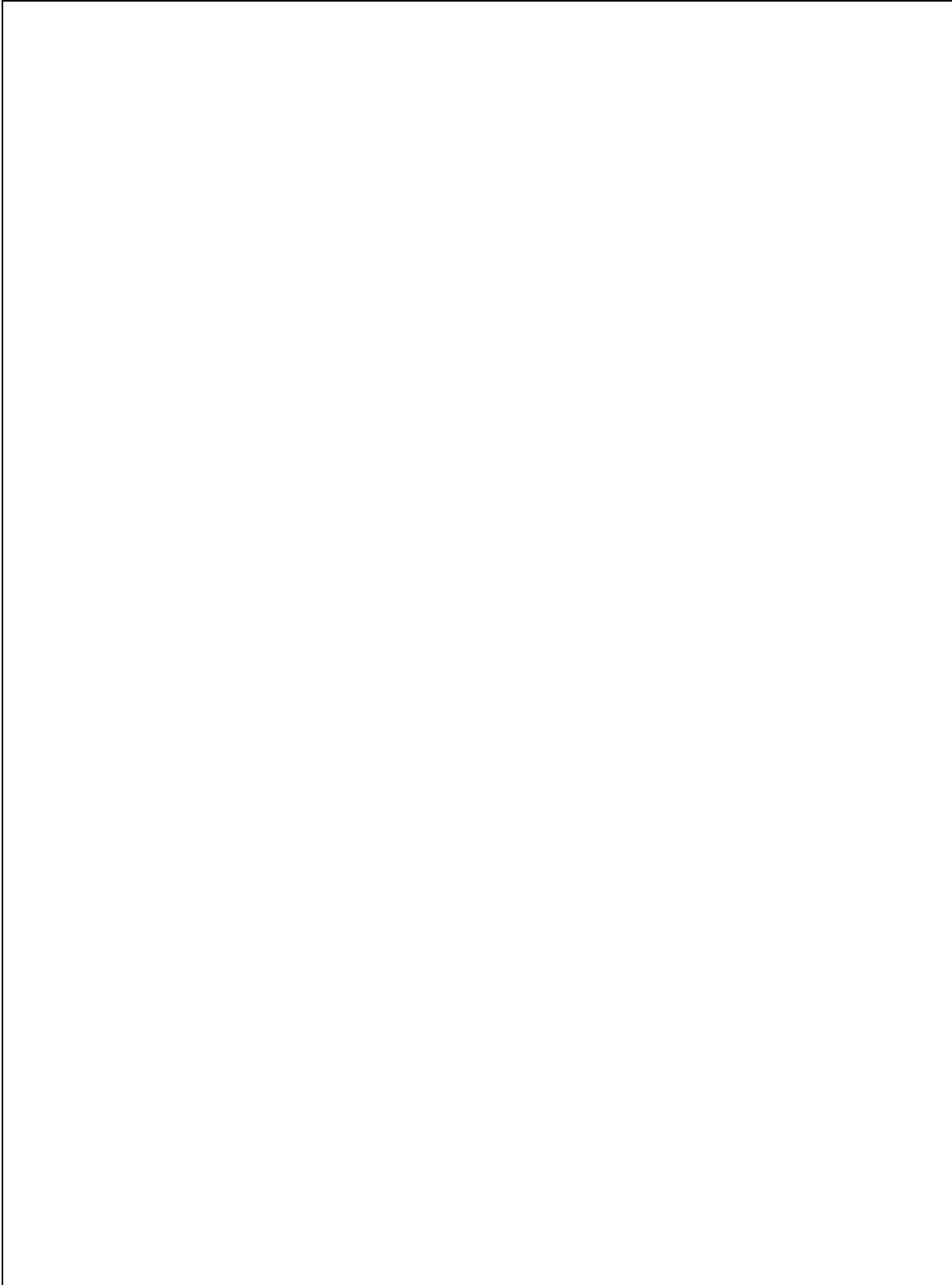
I found an artifact with seal teeth.

Here is what it looks like.



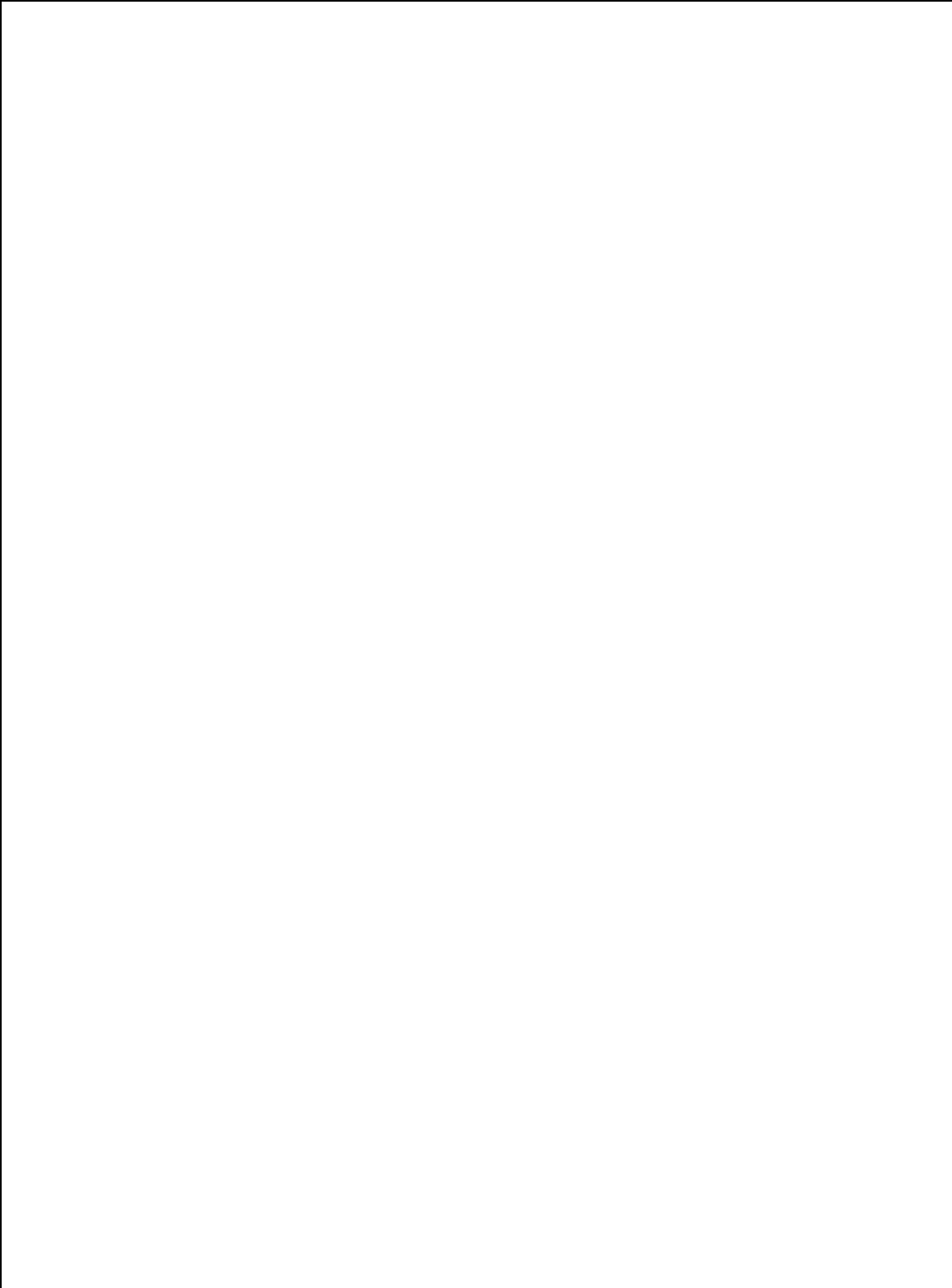
I found an artifact with seal skin.

Here is what it looks like.



I found a hunting spear.

Here is what it looks like.



I found a seal bladder float.

Here is what it looks like.



Research Project Organizer

Name

Date

Food

Size

Social Behavior

Environment

Prey