

Exploring Wild Foods



Grade: 5th and up

Time: 2 Days

Lesson Description: Students will learn about the many ways Alutiiq/Sugpiaq people use widely available wild foods.



Kit Includes:

- The Wild Foods Cookbook
- Wild Foods Worksheet
- Looking Both Ways Heritage and Identity of the Alutiiq People
- Alutiiq Hunting and Fishing PowerPoint
- Wild Foods Videos

Materials Needed:

- Computer

Photo: Mary Haakanson teaches visitors how to butcher a duck.

Vocabulary/Alutiiq Vocabulary	Art Elements	Art Principles	Content Connections
Arthropod	<input checked="" type="checkbox"/> Line	<input type="checkbox"/> Pattern	AK Cultural Standards
Amphibian	<input checked="" type="checkbox"/> Shape	<input type="checkbox"/> Rhythm/Movement	
Suumacirpet — Subsistence	<input checked="" type="checkbox"/> Color	<input checked="" type="checkbox"/> Proportion/Scale	AK History Standards
Naut'staat — Plants	<input type="checkbox"/> Texture	<input checked="" type="checkbox"/> Balance	
Unguwallriaq — Animal	<input checked="" type="checkbox"/> Space/Perspective	<input type="checkbox"/> Unity	
		<input checked="" type="checkbox"/> Emphasis	

Objectives and Assessment Criteria:

Students will learn...

- To compare and contrast historic accounts of traditional harvesting and food preparation to methods used today.
- To explore Kodiak's wild foods and the process of gathering, preparing, and preserving foods.

Cultural Relevance:

Food traditions are a central aspect of a society's cultural identity. The foods that people eat, and the dishes they make from these foods, are some of the most deeply held social customs. People who immigrate to new lands or whose societies are impacted by colonization typically maintain their traditional cuisines. Alutiiq people are no exception. The rich seafoods of the traditional diet are a cherished part of modern meals, and many favorite subsistence foods are incorporated into dishes introduced by Russian, Scandinavian, American, and Asian settlers.

Cooking subsistence foods is a joyful act. Alutiiq people are proud to feed their families fresh, local foods, which are seen as cleaner and healthier than the groceries available in stores. Moreover, social gatherings are not complete without an array of dishes made from Kodiak resources: herring eggs on eelgrass, smoked salmon, fish pie, baked halibut, seal soup, and for dessert, salmonberry tarts and berries mixed with fat, sugar, and milk.

Before the availability of stoves and metal pots, Alutiiq people cooked over open fires with tools crafted from cedar driftwood. Because cedar naturally repels water, its fragrant wood was an excellent choice for cooking tubs, bowls, dishes, and spoons. Chefs boiled water and heated soups and stews by dropping hot stones into wooden dishes, tightly woven grass baskets, or by setting large clay pots directly in the fire. Wooden containers from archaeological sites bear burn marks from red-hot rocks. People also cooked by roasting foods over the fire, placing food on hot slabs of stone, baking items in pits filled with hot coals, or fermenting foods in leaf-lined pits.

Create:

- Have students explore the sharing wild foods online exhibit found on the Alutiiq Museum's website.
 - Have students watch the eleven short videos on harvesting and preparing Alutiiq/Sugpiaq foods in any order.
 - Traditional Foods Videos:
 - Uriitat — Chiton Video: <https://vimeo.com/77544001>
 - Amutaq — Cod Video: <https://vimeo.com/77544002>
 - Nasqulut — Kelp Video: <https://vimeo.com/146949488>
 - Amikuq/Utguiq — Octopus Video: <https://vimeo.com/146949490>
 - Saqiq — Halibut Video: <https://vimeo.com/146949491>
 - Saqul'aq — Duck Video: <https://vimeo.com/146949492>
 - Alagnat — Assorted Berries Video: <https://vimeo.com/146949494>
 - Tuntuq — Deer Video: <https://vimeo.com/146949495>
 - Naut'staat — Assorted Greens Video: <https://vimeo.com/146949496>
 - Qateriuk — Ptarmigan Video: <https://vimeo.com/146949498>
 - Niklliq — Salmon Video: <https://vimeo.com/146950214>
 - Provide the students with the wild foods' worksheet. As they watch the videos have the students draw an image of the food and answer the questions.
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Close and Assessment:

- Have a class discussion about the types of food and preparation of foods. Have they eaten any of these foods? Do they have other ways of preparing the foods?

- As a follow up activity, have students bring in family recipes of wild foods or a traditional family dish and create a classroom cookbook.
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Modification:

- Have students compare modern fishing and hunting tools to historically used tools using the book, Looking Both Ways and the Alutiiq Museum website.
 - Explore the health benefits of eating subsistence foods.
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Additional Resources:

- Alutiiq Word of the Week: Cook — Kenirluni, Uuceslluku
- Wild Foods Cookbook
- Alutiiq Subsistence Informational Booklet
- Subsistence Information in Historic Accounts of the Kodiak Alutiiq

Wild Foods Worksheet

<p>Draw an image:</p>	<p>What type of food is it? Animal or plant?</p> <p>Is the food a mammal, bird, fish, reptile, amphibian, or arthropod?</p> <p>Have you eaten this wild food?</p> <p>When is the best time to harvest the food?</p>
<p>Draw an image:</p>	<p>What type of food is it? Animal or plant?</p> <p>Is the food a mammal, bird, fish, reptile, amphibian, or arthropod?</p> <p>Have you eaten this wild food?</p> <p>When is the best time to harvest the food?</p>

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Thanksgiving and Local Alutiiq Foods



Grade: 1st-5th

Time: 2 hours

Lesson Description: Students will learn about traditional and local Alutiiq foods.



Kit Includes:

- Coloring Iqalluut— Fish Illustrations by Hanna Sholl
- Animals from Coloring Alutiiq Illustrations by Hanna Sholl
- Berry Illustrations by Hanna Sholl

Materials Needed:

- Plain white uncoated paper plates
- Pencils
- Crayons, colored pencils, or markers
- Scissors
- Glue Sticks

Photo: Student sharing their tradition and local foods plate.

Alutiiq Vocabulary	Art Elements	Art Principles	Content Connections
Quyawik, Quyawim ernera —Thanksgiving Katuq — Gather Together Alagnaq — Berry Cuawak — Blueberry Wiinaq — Sea Lion Isuwiq — Seal Taquka’aq — Bear Sagiq — Halibut Aq’alaq — Jumper Aamasuuk, liliksak — King Salmon Iqalluarpak — Herring	<input checked="" type="checkbox"/> Line <input checked="" type="checkbox"/> Shape <input checked="" type="checkbox"/> Color <input checked="" type="checkbox"/> Value <input type="checkbox"/> Texture <input checked="" type="checkbox"/> Space/ Perspective	<input type="checkbox"/> Pattern <input type="checkbox"/> Rhythm/ Movement <input checked="" type="checkbox"/> Proportion/ Scale <input checked="" type="checkbox"/> Balance <input checked="" type="checkbox"/> Unity <input checked="" type="checkbox"/> Emphasis	Alaska Cultural Standards Arts Standards

Objectives and Assessment Criteria:

Students will learn...

- Traditional and local Alutiiq Foods.
- Share their own traditional and local foods.
- Discuss ways of hunting and fishing for food.
- Understand the importance of gathering and sharing.

Cultural Relevance:

The origins of the Thanksgiving holiday are as complex as the history of America. Although many people consider the harvest feast held in the Plymouth colony in 1621 as the first Thanksgiving, the tradition of giving thanks over a harvest meal is not confined to European settlers, nor did it begin in Plymouth. For millennia, Native American communities have recognized nature's bounty and given thanks at fall gatherings. Alutiiq people, for example, have long shared stores of foods harvested in the summer during fall and early winter gatherings. Today, the festivals of the past have changed to modern potlucks and potlatches, but they reflect a tradition of honoring ancestors and the spirit world for the gifts of food that sustain human life.

Thanksgiving became a United States holiday during the Civil War. In 1863, President Lincoln proclaimed the last Thursday in November a National Day of Thanks. Many Alutiiq families have adopted this holiday, celebrating as other Americans do with a day of feasting and relaxation. Although Kodiak's Thanksgiving tables may feature turkey and pumpkin pie, they are also likely to include local foods from the past year's harvest. The seal and deer meat, salmon, crab, and wild duck served in Alutiiq homes mirror the feast shared by the Plymouth colonists and their Wampanoag Indian neighbors, who celebrated the bounty of their world with local venison, cod, lobsters, seals, and a variety of game birds.

Create:

1. Prep: print the berry, animal, and fish drawings from the back of this lesson plan – enough copies for all your students.
2. Talk about how Thanksgiving is coming up. Thanksgiving is a uniquely American holiday, but there are festivals and feasts in many cultures. Sharing food and sharing meals together is important in all cultures.
3. Ask the students, what kinds of foods does your family usually eat on Thanksgiving? Have a classroom discussion.
4. Once all the students have shared, pass out the paper plates, pencils, colored pencils/crayons/markers.
5. Have the students draw some of the foods they like to eat on Thanksgiving or another holiday. Be sure to leave space on the plate because they will be adding more food later.
6. Ask students questions about their food.
 - o What did they draw on their plate?
 - o Do they help prepare any of these foods?
 - o Where did the food come from – was any of it local? Did they help harvest or process it?
7. Now let's talk about Alutiiq feasts. Let's think back hundreds of years – where did people get their food if there was no grocery store? Sharing food with the community was important in Alutiiq culture – winter festivals were important for spending time together in winter. People sat around a fireplace telling stories, dancing, singing, drumming, and sharing food. Has anyone seen the Kodiak Alutiiq Dancers perform? Is anyone here a member of the Kodiak Alutiiq Dancers?
8. Read or play aloud the Alutiiq Word of the Week for Thanksgiving and Gather Together.

9. Now let's talk about local foods – do you hunt or gather any local food? What are some examples? (Wild game, fish, berries, plants/roots, kelp, clams, mussels).
 10. If you were in Kodiak and you didn't have electricity hundreds of years ago and didn't have a refrigerator or freezer, how would you preserve your food for winter? (Drying or smoking fish or meat, burying food to ferment, storing berries in sea mammal oil).
 11. Now let's add some local food to our plates. Pass out the berry, animal, and fish drawings along with scissors and glue. Students can pick coloring pages with foods they like, color them, cut them out, then glue them to their plates. Combining imported foods or new dishes with traditional or local foods is one way in which many Alutiiq families celebrate on Thanksgiving. Families from other cultures do the same.
 12. Ask students to describe the foods they chose to their neighbors. Option: pass out plastic spoons or forks, pass plates around the class, and pretend to taste each other's foods. Talk about how to complement each other's choices and to be open to trying new foods or dishes or respecting them even if you don't like them.
 13. Additional Activity: Taste local foods.
 - Cituq (mashed berries – works well with partially-thawed salmonberries – mixed with evaporated milk and sugar)
 - Smoked salmon (can be mixed with cream cheese, made into a dip), served with crackers.
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Close and Assessment:

- Students learned about the traditional and local Alutiiq Foods.
 - Students share their own traditional and local foods.
 - Students discussed ways of hunting and fishing for food.
 - Students understand the importance of gathering and sharing.
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Modification:

- As a whole class, you can use a big piece of paper and draw a big circle to represent a plate. Then as a class, draw the different foods together on the big plate and glue the different traditional foods.
 - Have the students write a story on the back of their plates about a fest/celebration incorporating the foods they included and how they caught and prepared them.
 - Have the students label their foods with English or Alutiiq vocabulary, or another language of their choice. Older students could use the dictionary on alutiiqlanguage.org.
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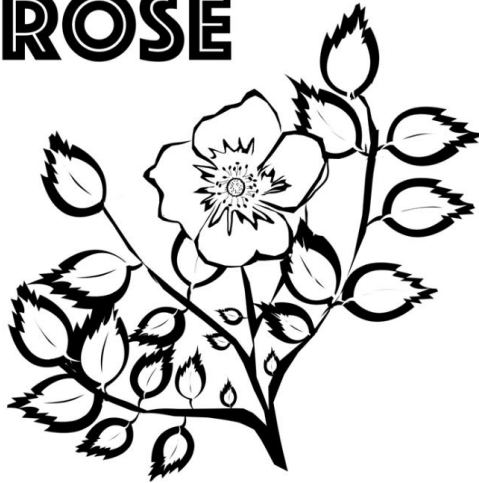
Additional Resources:

- Alutiiq Museum's online exhibit, Sharing Wild Foods.
- Alutiiq Museum's The Wild Foods Cookbook

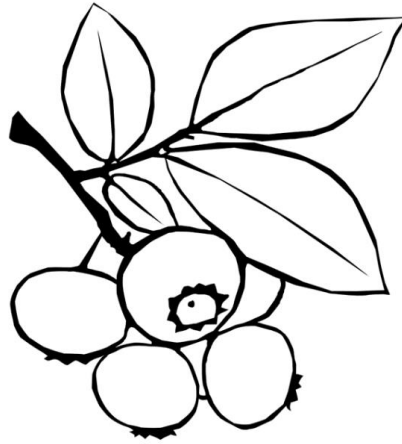
Alutiiq Museum & Archaeological Repository
215 Mission Rd, Suite 101, Kodiak, AK 99615, (844) 425-8844; alutiiqmuseum.org

- Alutiiq Museum's harvesting and preparing Alutiiq foods videos.
Traditional Foods Videos:
 - Uriitat — Chiton Video: <https://vimeo.com/77544001>
 - Amutaq — Cod Video: <https://vimeo.com/77544002>
 - Nasqulut — Kelp Video: <https://vimeo.com/146949488>
 - Amikuq/Utguiq — Octopus Video: <https://vimeo.com/146949490>
 - Sagiqa — Halibut Video: <https://vimeo.com/146949491>
 - Saqul'aq — Duck Video: <https://vimeo.com/146949492>
 - Alagnat — Assorted Berries Video: <https://vimeo.com/146949494>
 - Tuntuq — Deer Video: <https://vimeo.com/146949495>
 - Naut'staat — Assorted Greens Video: <https://vimeo.com/146949496>
 - Qateriuk — Ptarmigan Video: <https://vimeo.com/146949498>
 - Niklliq — Salmon Video: <https://vimeo.com/146950214>
- Alutiiq Word of the Week Archive: Berry — Alagnaqa
- Alutiiq Word of the Week Archive: Blueberry — Cuawak
- Alutiiq Word of the Week Archive: Sea Lion — Wiinaqa
- Alutiiq Word of the Week Archive: Seal — Isuwiqa
- Alutiiq Word of the Week Archive: Bear — Taquka'aqa
- Alutiiq Word of the Week Archive: Halibut — Sagiqa
- Alutiiq Word of the Week Archive: Jumper — Aq'alaaqa
- Alutiiq Word of the Week Archive: King Salmon — Aamasuuk, liliksak
- Alutiiq Word of the Week Archive: Herring — Iqalluarpak
- alutiiqlanguage.org
- Coloring Alutiiq Book
- Coloring Iqalluut – Fish Book

ROSE



BLUEBERRIES



CIPAU'INIIK

CUAWAT

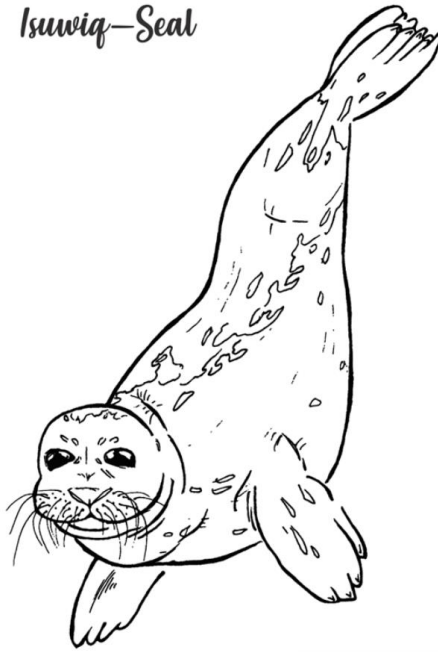
SALMONBERRIES



ALAGNAT

Berry Illustrations by Hanna Sholl

Iswiq—Seal



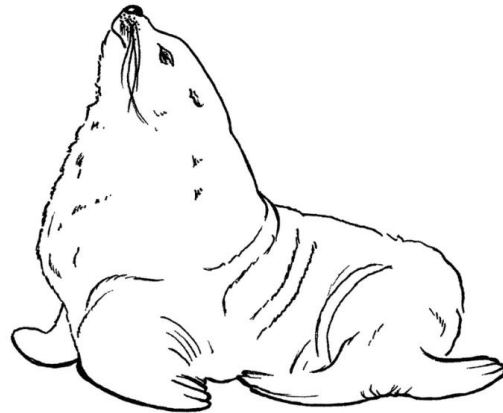
Aq'alarai—Jumper!



Taqua'aq—Bear



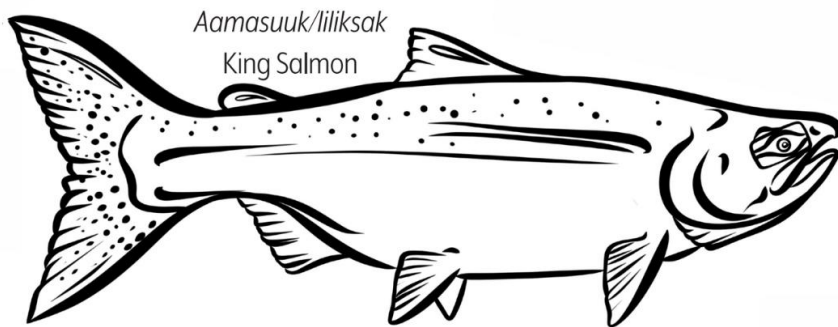
Wiinaq—Sea Lion



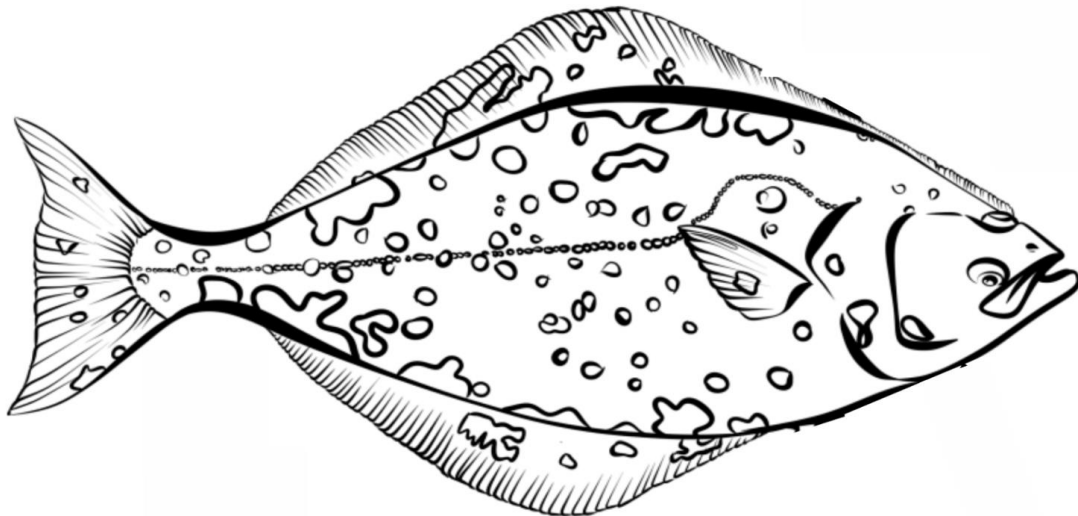
Animal Illustrations from *Coloring Alutiiq* by Hanna Sholl

Iqalluarpak

Herring



Sagiq
Halibut



Fish illustrations from *Coloring Iqalluut—Fish* by Hanna Sholl

Iqsani's Trout Hook

How Can We Learn From The Past?



Grade: 3rd- 4th

Time: 1-2 days

Lesson Description: Students will learn how Alutiiq people lived in the past, make connections between history and their own way of life, and consider different ways to study the past.



Kit Includes:

- Iqsani's Trout Hook book
 - eBook*
 - Audio Book*
 - Glossary*
- *Available online at alutiiqmuseum.org

Materials Needed:

- Computer with Internet access
- Paper
- Pencils
- Colored Pencils/Crayons

Photo: Iqsani holding a trout. Watercolor by Cheryl Lacy

Vocabulary/Alutiiq Vocabulary	Art Elements	Art Principles	Content Connections
Sites Features Artifacts Midden Archaeologist Emaa — Grandmother Apaa — Grandfather Aana — Mother Ata — Father Aningaa — Brother (older) Uyuwaq — Brother (younger) Alqaq — Sister (older) Uyuwaq — Sister (younger) Gui — Me Ataata — Uncle (father's side) Acaa — Aunt (father's side) Angaa — Uncle (mother's side) Anaanaa — Aunt (mother's side) Iluwaq — Cousin	<input checked="" type="checkbox"/> Line <input checked="" type="checkbox"/> Shape <input type="checkbox"/> Color <input checked="" type="checkbox"/> Value <input checked="" type="checkbox"/> Texture <input checked="" type="checkbox"/> Space/ Perspective	<input checked="" type="checkbox"/> Pattern <input type="checkbox"/> Rhythm/ Movement <input checked="" type="checkbox"/> Proportion/ Scale <input checked="" type="checkbox"/> Balance <input type="checkbox"/> Unity <input checked="" type="checkbox"/> Emphasis	World Language Social Studies—Local History, Culture, and Community; Alaska, the Changing State Earth and Space Sciences—Earth and Human Activity Archaeology Alaska State Standards Reading for Literature Writing, Speaking, and Listening

Objectives and Assessment Criteria:

Students will learn...

- How archaeology helps us understand the past.
 - How family history can help us learn about the past.
 - Alutiiq language vocabulary for some family members.
 - How learning about the past can help us understand life today.
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Cultural Relevance:

Alutiiq People have lived on Kodiak Island for at least 7,500 years. There are many ways to study Alutiiq history. By talking to Alutiiq people, reading written records, and studying ancient settlements and objects. Using all these we can explore how people lived long ago. Written records of the Alutiiq people only reach back about 250 years, but archaeological sites document thousands of years of Alutiiq history and help us understand how Alutiiq people harvested resources, cared for their families, and celebrated life long before written records.

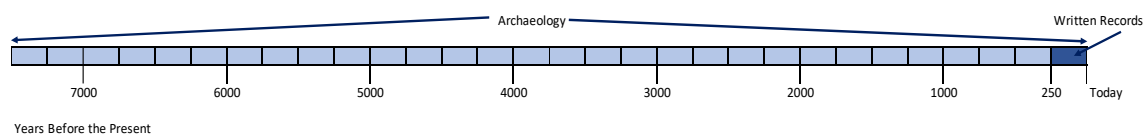
Iqsani's Trout Hook is a fictional story about a family who family lived in Larsen Bay about 300 years ago. This family spent their summers at Karluk Lake, fishing and preparing food for the winter. Through this story we learn about the daily activities at fish camp and the ways Alutiiq people used natural resources like fish, cottonwood, feathers, and berries. This story is inspired by the finds from an ancestral Alutiiq village, studied by archaeologists. At the end of the book readers learn about these finds and their connections to Iqsani's story.

Create:

Day 1: Archaeology and Alutiiq History

- Before reading the story, ask your students how we can learn from the past.
- What sources provide information on the ways people lived in the past? Where can we find clues?
- Ask students if they know how long Alutiiq people have lived on Kodiak and how we study Alutiiq history. Next, draw a line on your white board and label one end 7,500 years ago and the other today. Explain that this timeline represents the span of Alutiiq history. Then draw a line near the line for today showing 250 years ago, following the example below. Explain that written records from Kodiak are no more than 250 years old and ask students to think about how we could learn about Alutiiq history before written records. Introduce the concept of archaeology—the study of the past from the things that people leave behind. Explain that Iqsani's Trout Hook is a story inspired by houses, tools, and garbage left behind by an Alutiiq family hundreds of years ago.

Alutiiq history timeline with ways to study the past.



- Read and discuss the story of Iqsani and his family as a class (pages 3–31). Read the story to your students or have them take turns reading paragraphs. Try stopping at the Alutiiq vocabulary words, particularly the terms for family members, and practice saying the Alutiiq words.
- Use the online glossary available on the Iqsani's Trout Hook page of the museum's website.
- After your class has read the story, ask discussion questions.
 - What would we find if we visited Iqsani's family fish camp today? What clues might be left from the family's activities? What information might be missing?
 - What items or materials might remain for the longest time after Iqsani's family left? Why?
 - What types of tools might be left behind?
 - Would the remains of an animal or plant last longer? Why?
 - What parts of their buildings would last longest? Why do you think that?

Closure for Day 1:

- Introduce the family tree activity and tell students that they will be using these words to make their own family tree later in the week.
- Have each student practice writing the Alutiiq family names in both English and Alutiiq.

Day 2: Archaeology and Family History

Part One—Archaeology

- Begin the lesson by reviewing what was read the day before and ask students what they remember about the story of Iqsani and his family.
- As a group read the second part of the book, the archaeology section, beginning on page 32. This portion of the book will answer questions your class explored in the discussion and help them understand how we learn about the past through archaeology. Ask students to identify the clues found in the archaeological site that appears in the story.
- Some of the clues include:
 - Depressions in the ground from the sod houses.
 - The stone weir found in the river.
 - The tools and objects found around the fish camp, including the stone balls used to play the game yaamaq.
 - The types of animal remains found in the garbage pile.

Part Two—Family History

- Ask students to share how their family is like Iqsani's and how it is different.
 - Who is in their family?
 - Do they preserve food for the winter? If so, which foods? Do they help when their family prepares food?
 - Do they have responsibilities (chores) that they must do? What are they?
 - Why are they important?
 - Do they have different responsibilities in the summer and the winter?
 - Are there different jobs for different people (i.e., younger people vs. older people)?
 - Do they work on projects together as a family?
- Ask students to think about how people in the future could learn about the time we are living in now. Have each student think of up to five important items from their life now that would help future archaeologists learn about this time. Each student should write a list of the items they chose and write why each item would be an important clue about

- their life including a special gift that they had received or would like to receive. Ask them to think about which items would last the longest.
- In the story, Iqasani was given a special gift from his father, a hand carved trout hook. In Alutiiq culture, passing on traditions is very important and gifts like the trout hook can hold special significance. The hook was something specially made for Iqasani by his father, and an item useful for subsistence. While students are choosing items for their list, ask them to think about an item that was a significant gift, or a gift they would like to have, and what that gift means or would mean to them.

Closure for Day 2:

- Ask for volunteers to share items from their list. Students can also pair up and share their list with a partner instead of the whole class. Remind them about making their own family tree the next day.

Day 3: Art Activity

- Review the reading from yesterday and answer any questions.
- Ask students to think about how our family can help us learn about the past. Look at the family tree at the beginning of the story and have students think about who would be on their family tree.
- Ask students to draw their family tree like the one on page 2 of the book. Have them label each person with a title in English and Alutiiq (e.g., Emaa–Grandmother). While they are drawing their family, ask them to think about what information about their own history they can learn from different people in their family.

Closure for Day 3:

- After students have completed their own family tree, ask for volunteers to share their family tree with the class. Students can also pair up and share their family tree with a partner instead of with the whole class.
- Practice saying Alutiiq terms for family members. You can hear these terms be pronounced on the Iqasani's Trout Hook page of the museum's website.

Close and Assessment:

- Students will have used critical thinking skills to analyze the text and explore how information from the past can be discovered.
- They will have developed an understanding of how archaeology helps uncover information about the past and gives us clues about how people lived. Through reading the book and discussing it with their classmates, students will make connections between the ways people lived in the past and how they live today.
- Students will have been introduced to Alutiiq vocabulary for family members.

Modifications:

- Make a little booklet/journal for each student to create a keepsake for their learning.
- Draw/make a story map of the clues found in the story. Label the clues.
- Write a summary paragraph of the story, including how archaeology helps us learn about the past.

- Ask students to bring in pictures of special items from their past or their family's past to share with the class.
 - Write a compare/contrast paragraph between yourself and Iqsani.
 - Write a journal entry about what Iqsani might do the day after upon returning to his winter village.
 - Write a journal entry discussing what you would show Iqsani if he lived in our time for a day. What would he see, hear, feel, taste, touch?
 - Check out the Alutiiq Games box from the Alutiiq Museum to play yamaaq. Write about a game that students play today. Write the rules of the game.
 - Make shadow puppets of the characters in the book and ask students to re-tell the story using the puppets.
 - Have the students tableau one scene in the story.
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Additional Resources:

- Alutiiq Word of the Week Archive

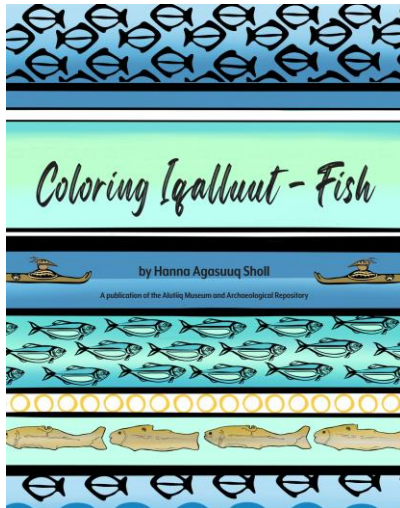
Coloring *Iqalluut* — Fish



Grade: 2nd through 4th

Time: 2 Days

Lesson Description: Students will learn about the different fish in Kodiak waters using the Coloring *Iqalluut* — Fish book and understand the importance of fishing to the Alutiiq people.



Coloring *Iqalluut* — Fish Book by Hanna Sholl

Kit Includes:

- Coloring *Iqalluut* — Fish Book
- Fish Labeling Templates
- Alutiiq Vocabulary Worksheet
- Storyboard Outline

Materials Needed:

- Computer for internet access
- Colored pencils or markers

Alutiiq Vocabulary	Art Elements	Art Principles	Content Connections
<i>Iqalluk</i> — Fish <i>Pacik</i> — Gill <i>Pamyuq</i> — Tail <i>Iqallum Nasqua</i> — Fish Head <i>Aruluq</i> — Fin <i>Qaneq</i> — Mouth <i>Aamasuuk/liliksak</i> — King Salmon <i>Iqalluarpak</i> — Herring <i>CiRupuuk/Cilupuuk</i> — Rockfish <i>Sagiq</i> — Halibut <i>Iqsak</i> — Fishhook <i>Ayaquq</i> — Harpoon <i>Kiak</i> — Summer <i>Ugnerkaq</i> — Spring <i>Uksuq</i> — Winter <i>Uksuaq</i> — Fall, Autumn	<input type="checkbox"/> Line <input checked="" type="checkbox"/> Shape <input checked="" type="checkbox"/> Color <input type="checkbox"/> Value <input type="checkbox"/> Texture <input checked="" type="checkbox"/> Space/ Perspective	<input type="checkbox"/> Pattern <input type="checkbox"/> Rhythm/ Movement <input checked="" type="checkbox"/> Proportion/ Scale <input type="checkbox"/> Balance <input type="checkbox"/> Unity <input checked="" type="checkbox"/> Emphasis	AK Reading Standards AK Cultural Standards AK Writing Standards AK Art Standards AK Speaking and Listening Standards

Objectives and Assessment Criteria:

Students will learn...

- How the Alutiiq people fished in the past and continue to fish in the present.
- The gear Alutiiq people use/used to fish in Kodiak.
- The different types of fish found in the waters around Kodiak, Alaska.

Cultural Relevance:

The Alutiiq are Alaska Native people and Kodiak's first settlers. They came to the islands more than 7,500 years ago with boats and tools for gathering and harvesting from the sea. They hunted sea mammals and birds, fished for salmon and cod, and collected shellfish, berries, vegetables, and eggs. People lived along the coast in *Ciqlluut* — Houses built from wood and grass. Here they made food, crafted tools, raised children, and celebrated. Today about 1,800 Alutiiq people live on Kodiak, where they continue to harvest wild foods, practice Alutiiq arts, dance, and speak in the Alutiiq language.

Standards Addressed:

Alaska Art Standards:

Second Grade:

VA:CN10a-2 Create works of art about events in home, school cultural, or community life.
VA:CR2b-2 Demonstrate safe procedures for using materials, tools, equipment, and studio spaces

Third Grade:

VA:CN10a-3 Create a work of art based on observations of environmental surroundings.
VA:CR1b-3 Apply knowledge of available resources, tools, and technologies to investigate personal ideas or cultural background through the art-making process.
VA:CR2b-3 Demonstrate safe procedures for using materials, tools, equipment, and studio spaces
VA:CR2c-3 Individually or collaboratively construct representations, diagrams, or maps of places that are part of your personal or cultural life.

Fourth Grade:

VA:CN10a-4 Create a work of art that reflects community or cultural traditions.
VA:CR2c-4 Describe and visually represent regional constructed environments.

Alaska Cultural Standards for Students (All Grades):

- A. Culturally knowledgeable students are well-grounded in their community's cultural heritage and traditions.
 3. acquire and pass on the traditions of their community through oral and written history.
 4. practice their traditional responsibilities to the surrounding environment.
- B. Culturally knowledgeable students are able to build on the knowledge and skills of the local cultural community as a foundation from which to achieve personal and academic success throughout life.
 1. acquire insights from other cultures without diminishing the integrity of their own.

- C. Culturally knowledgeable students are able to actively participate in various cultural environments.
 - 1. perform subsistence activities in ways that are appropriate to local cultural traditions.
- E. Culturally knowledgeable students demonstrate an awareness and appreciation of the relationships and processes of interaction of all elements in the world around them.
 - 1. understand the ecology and geography of the bioregion they inhabit.
 - 8. identify and appreciate who they are and their place in the world.

Alaska English/Language Arts Standards Grade 2

Reading

RL.2.1: Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of a literary text using key details from the text.

RI.2.6: Identify the main purpose of a text, including what the author wants to answer, explain, or describe.

RI.2.7: Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.

Speaking and Listening

SL.2.2: Retell or describe key ideas or details from a text read aloud or information presented orally or through other media.

SL.2.4: Tell a story or retell an experience with relevant facts and relevant, descriptive details, speaking audibly in coherent sentences.

Alaska English/Language Arts Standards Grade 3

Reading

RL.3.1: Ask and answer questions to demonstrate understanding of a text (e.g., making basic inferences and predictions), referring explicitly to details from the text as the basis for the answers.

RI.3.5: Use text features and search tools (e.g., table of contents, index, key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.

RI.3.7: Use information gained from illustrations (e.g., maps, photographs), and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur).

Writing

W.3.7: Conduct short research projects that build knowledge about a topic.

W.3.8: Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.

W.3.10: Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Speaking and Listening

SL.3.4: Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details, speaking clearly at an understandable pace.

Alaska English/Language Arts Standards Grade 4

Reading

RL.4.1: Ask and answer questions to demonstrate understanding of a text (e.g., making basic inferences and predictions), referring explicitly to details from the text as the basis for the answers.

Speaking and Listening

SL.4.4: Report on a topic or text, tell a story, or recount an experience in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at an understandable pace.

Writing

W.4.7 Conduct short research projects that build knowledge through investigation of different aspects of a topic.

W.4.10: Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Connect:

Day 1:

- Ask the students if they have ever been fishing. Based on their responses ask them about their experience and what type of fish they tried to catch and what time of year they were fishing. If they have not been fishing before have a conversation about fishing as a class.
 - To broaden the conversation and connect with more students ask what seasonal activities they participate in during the winter, fall, spring, and summer.
 - Read the cultural relevance section of the lesson plan introducing the Alutiiq people.
 - Introduce the Coloring *Iqalluut* – Fish book to your students. Flip through the pages and ask if the students recognize any of the fish in the book.
 - Read and share the educational handouts with your students sharing how Alutiiq people fished, the importance of fishing, and the different types of fish around Kodiak. Found in the Alutiiq Traditional Book and available for download online.
 - *Iqallugsurluni Imarmi* – Ocean Fishing
 - *Iqallugsurluni Kuigmi* – River Fishing
 - Once the students are familiar with the book and fishing for the Alutiiq people. Pass out the attached fish templates with the Alutiiq vocabulary sheet and have students label the different parts of the fish with Alutiiq terms.
 - Once students successfully labeled the parts of the fish, invite them to color the fish. Then use these online resources for pronunciation of the words in Alutiiq.
 - Alutiiq Word of the Week Archive.
 - Alutiiq Dictionary.
 - Play the recorded pronunciations and say the Alutiiq words with your students.
-

Create:

Day 2:

- Re-read the Coloring *Iqalluut* — Fish Book to your students and tell them they will create their own stories based on the book.
 - Once you have read the story to the class, have the students work individually or in groups to create a short story. Students can use the attached storyboard to incorporate different aspects:
 - Where the story takes place (*Suumacirpet Asirpiartuq*. — Our Way of Living is the Best page)
 - What season is it in the story (*Cami Iqallugsurtaartukut* — When We Fish page)
 - What type of fish are they trying to get.
 - How they plan to go fishing and what gear/tools they are planning on using.
 - What are they going to do with the fish once they catch it.
 - Once the students finish their story about fishing invite the students to share their stories with the class.
 - Invite the students to share their favorite family recipes with fish to the class.
-

Close and Assessment:

- Students' stories show how the Alutiiq people went fishing in the past and the importance of fishing.
 - Students labeled and colored the different parts of the fish.
 - Students know the different types of fish caught in Kodiak.
-

Modifications:

- As a whole class, label the different parts of the fish together and create a fishing story.
- Create a fill-in-the-blank fishing story and have the students fill in the sections with the different aspects of fishing from the Coloring *Iqalluut* — Fish book.
- Students can create shadow puppets and perform their fishing stories for the class.
- Students can pick a fish from the book and draw it themselves, then label the parts of the fish and color it.
- Students can choose a fish and debate why their fish is better than the others. Include why the fish was important to the Alutiiq culture and how it was used to support the community and individuals to win the debate.
- Have a whole class potluck to share traditional foods with each other.

Extensions:

Science Lessons:

Coloring *Iqalluut*–Fish has many potential links to Alaska’s elementary science standards. Teachers are encouraged to tie illustrations to new or existing lessons that explore topics like observing animals (2.LS4.1), animal life cycles (3.SL1.1), and natural system functioning (4.LS1.2). Here is an example:

AK Science Standard Addressed:

3.LS1.1: Develop models to describe that organisms have unique and diverse life cycles, but all have in common birth, growth, reproduction, and death.

[Clarification Statement: Changes organisms, such as salmon, wooly bear caterpillar, frogs, go through during their life form a pattern.]

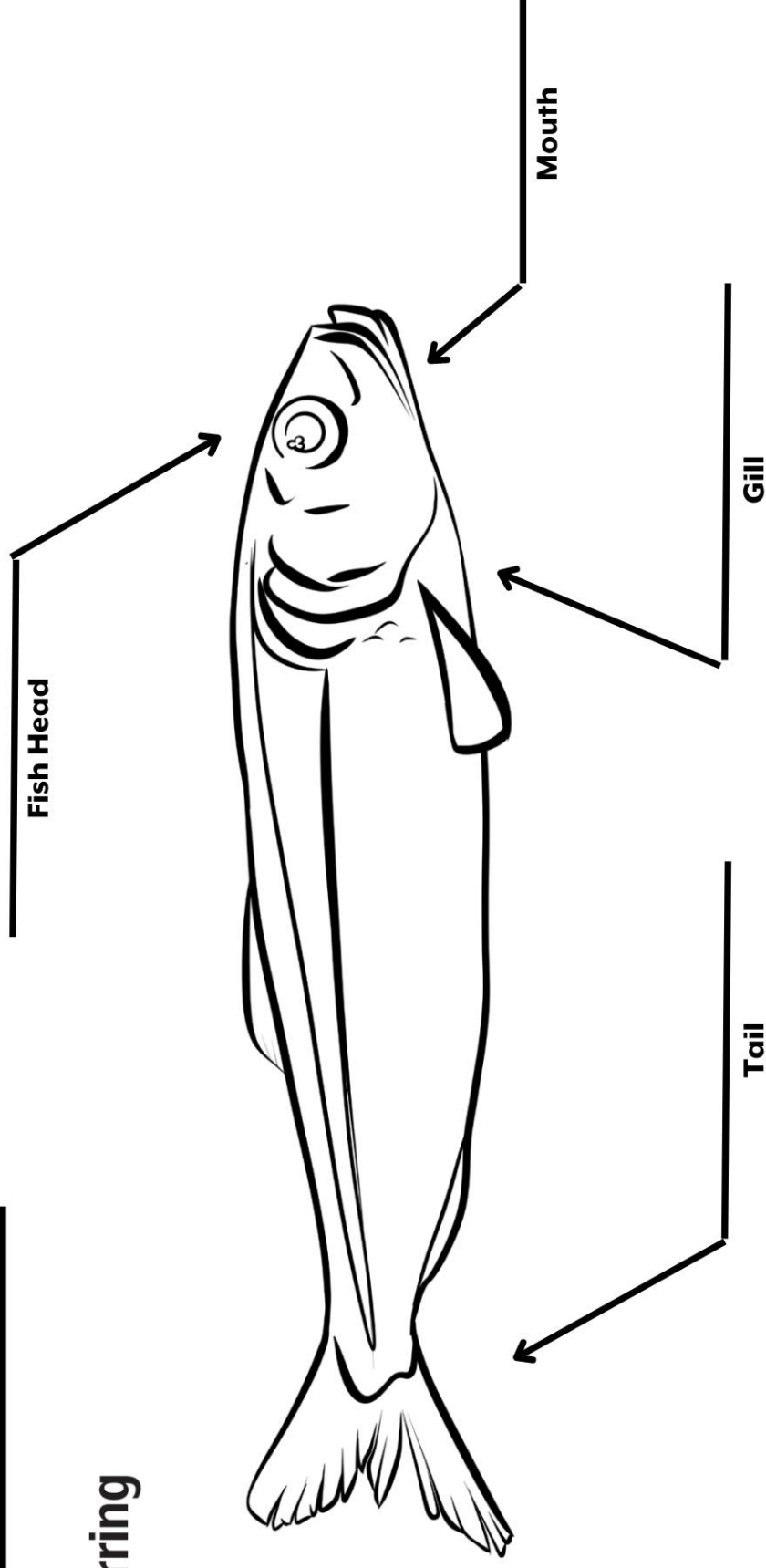
- Use the fish life cycle page to explore the life cycles of salmon, halibut, and rockfish, comparing and contrasting life stages.
- This lesson plan from the U.S. Fish & Wildlife Service explores salmon life cycles and could be paired with the fish life cycle page and/or the illustration of salmon before and after spawning:
https://www.fws.gov/sites/default/files/documents/01_Salmon%20Life%20Cycle%20Lesson%20Plan.pdf

Additional Resources:

- Alutiiq Word of the Week: Bait — *Narya’aq*
- Alutiiq Word of the Week: Dry Fish — *Tamuuq*
- Alutiiq Word of the Week: Fishing Boat — *Paragautaq (N)*, *Paraguutaaq (S)*
- Alutiiq Word of the Week: Net — *Kugyaaq*, *Kugyasiq*
- Alutiiq Word of the Week: Fishhook — *Iqsak*
- Alutiiq Word of the Week: Harpoon — *Ayaquq*
- Alutiiq Word of the Week: Summer — *Kiak*
- Alutiiq Word of the Week: Spring — *Ugnerkaa*
- Alutiiq Word of the Week: Winter — *Uksuq*
- Alutiiq Word of the Week: Fall, Autumn — *Uksuaq*

Label the parts of the fish in Alutiq:

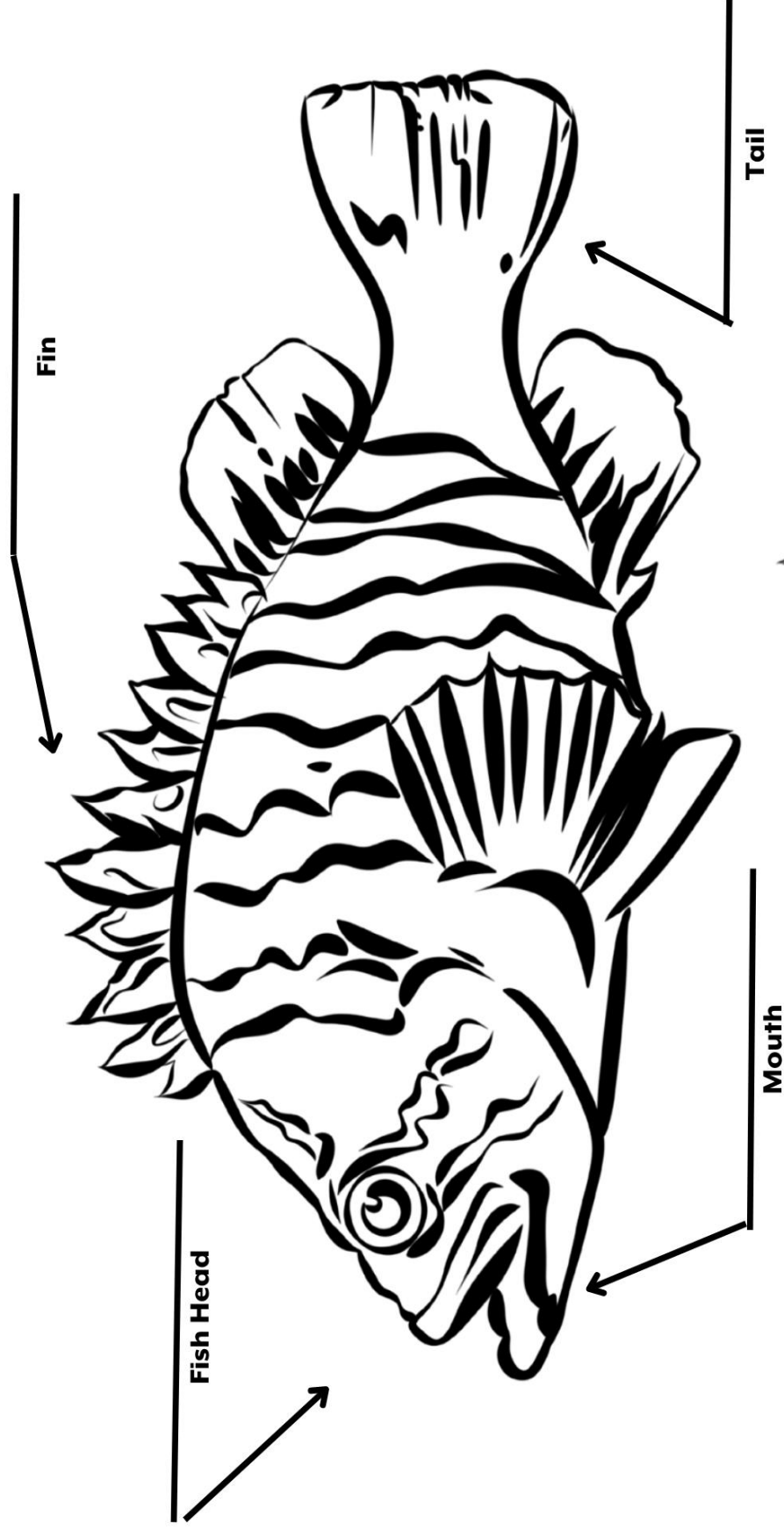
Herring



Drawing by: Hanna Sholl in Coloring Iqalluut— Fish

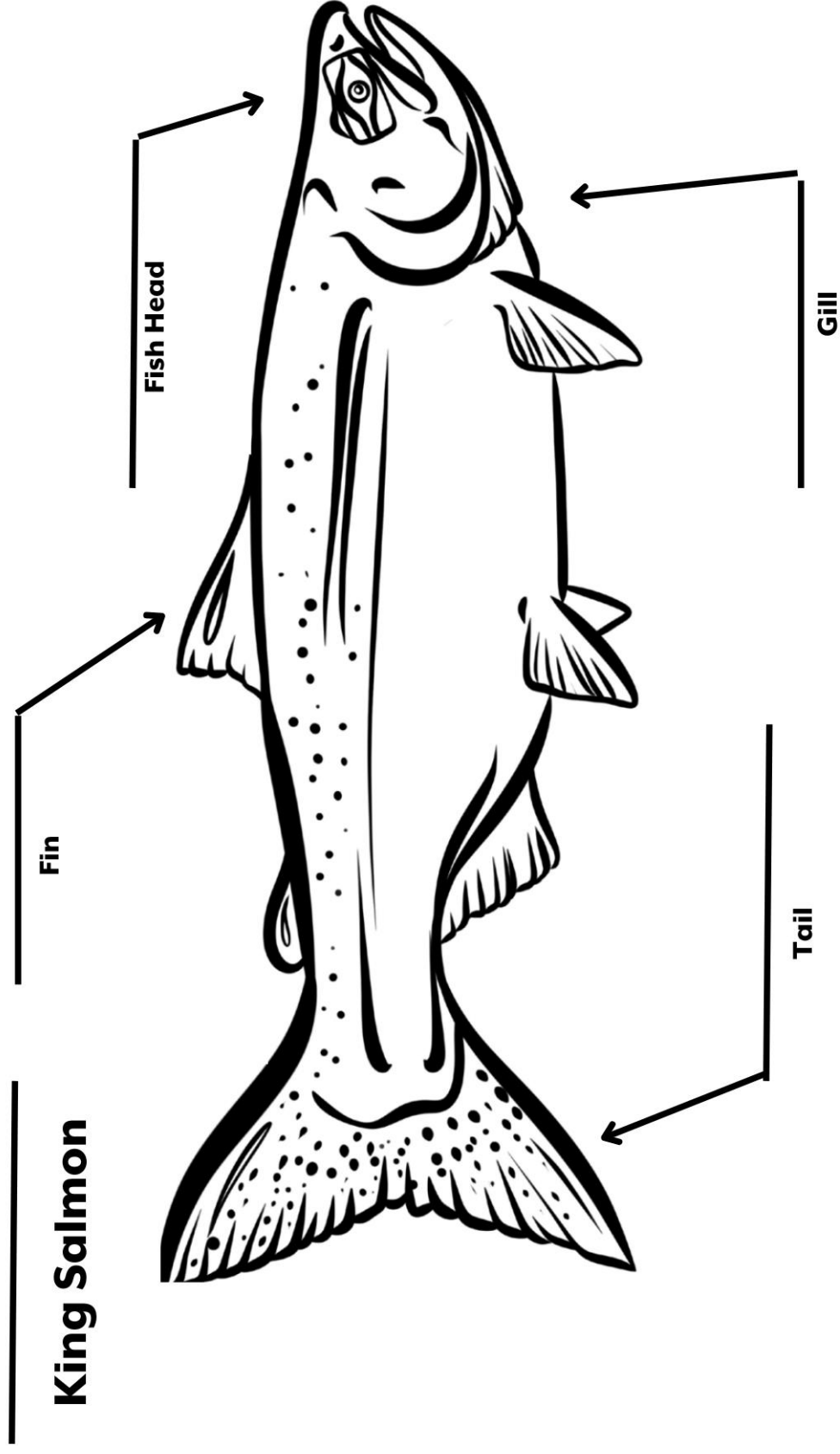
Label the parts of the fish in Alutiiq:

Tiger Rockfish



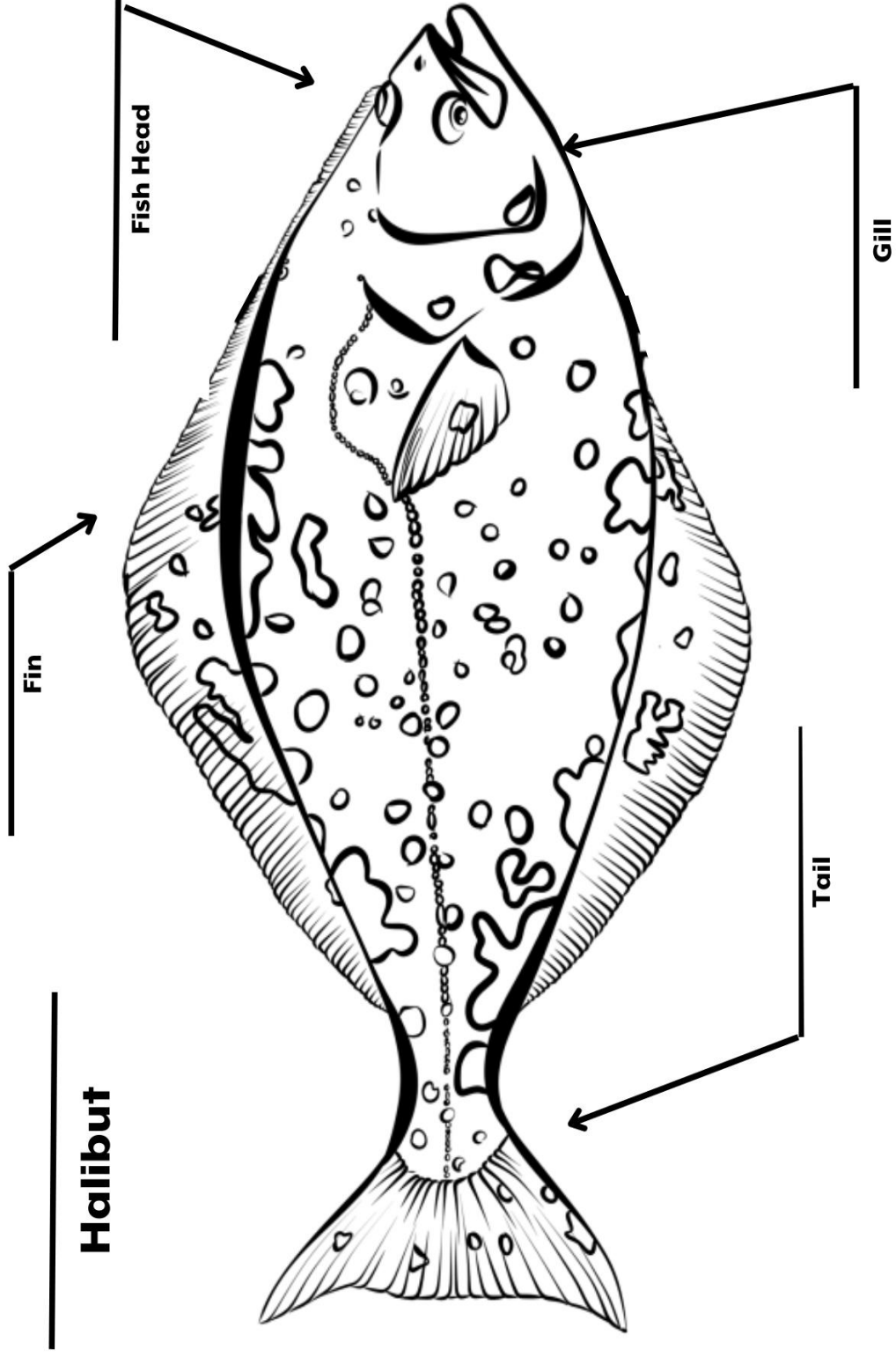
Drawing by: Hanna Sholl in Coloring Iqalluut— Fish

Label the parts of the fish in Alutiiq:



Drawing by: Hanna Sholl in Coloring Iqalluut— Fish

Label the parts of the fish in Alutiiq:



Drawing by: Hanna Sholl in Coloring Iqalluut— Fish

Alutiiq Coloring *Iqalluut* — Fish Vocabulary



Gill — *Pacik*

Tail — *Pamyuq*

Fish Head — *Iqallum Nasqua*

Fin — *Aruluq*

Mouth — *Qaneq*

King Salmon — *Aamasuuk/liliksak*

Herring — *Iqalluarpak*

Rockfish — *CiRupuuk/Cilupuuk*

Halibut — *Sagiq*

TITLE _____ PAGE _____ OF _____

NAME _____ YEAR & SUBJECT _____ DATE _____

SETTING	SEASON	TYPE OF FISH	TOOLS AND GEAR NEEDED	HOW IS THE FISH CAUGHT?	WHAT IS DONE WITH THE CATCH?
<div></div>	<div></div>	<div></div>	<div></div>	<div></div>	<div></div>

Subsistence Scavenger Hunt



Grade: K-12th

Time: 1 Day

Lesson Description: Students will use clues to identify and learn about different items related to Alutiiq subsistence.



Photo: Collecting chitons along the shores of Mission Bay, Kodiak Island, 2012.

Kit Includes:

- Scavenger Hunt Items:
 - Bear Claw
 - Baleen from Whale's Mouth
 - Spruce Root
 - Coal
 - Sea Lion Flipper Bone
 - Slate
 - Cod Head
 - Sea Otter
 - Land Otter
 - Harbor Seal
- Scavenger Hunt Clue Cards
- Scavenger Hunt Worksheet
- Scavenger Hunt Answer Key

Alutiiq Vocabulary	Art Elements	Art Principles	Content Connections
Suumacirpet — Subsistence Taquka'aaq — Bear Kagit'ruaq — Baleen Stuk — Claw Qetek — Coal Wiinaq — Sea Lion Amutaq — Cod Isuwiq — Seal Nukret — Roots	<input type="checkbox"/> Line <input checked="" type="checkbox"/> Shape <input type="checkbox"/> Color <input checked="" type="checkbox"/> Value <input checked="" type="checkbox"/> Texture <input checked="" type="checkbox"/> Space/ Perspective	<input type="checkbox"/> Pattern <input type="checkbox"/> Rhythm/ Movement <input checked="" type="checkbox"/> Proportion/Scale <input type="checkbox"/> Balance <input type="checkbox"/> Unity <input checked="" type="checkbox"/> Emphasis	AK Cultural Standards AK History Standards

Objectives and Assessment Criteria:

Students will learn...

- About the variety of animals and tools used for subsistence living in the Kodiak region.
- To identify the different scavenger hunt items.
- The Alutiiq word for the various items.

Cultural Relevance:

There is no easy way to translate the word subsistence into the Alutiiq language. Westerners often think of subsistence as the process of obtaining and eating wild foods, an alternative to buying groceries. This definition, however, fails to capture the complexities of living off the land.

To the Alutiiq people, subsistence is life. Collecting wild foods is not simply an economic activity, but a central component of social and spiritual life. Through hunting, fishing, and gathering, Alutiiq people experience and express their Native identity. They explore their deep and enduring connection to the land. They care for their families and communities. They celebrate and sustain life.

To Alutiiq people, subsistence is also a birthright, a way of living passed down from ancestors that has sustained countless generations. As one Alutiiq leader puts it, “it’s being who you are.” While not a literal translation of the word subsistence — suumacirpet, “our way of living,” expresses these many connections.

Create:

- Prepare the activity by placing the scavenger items around the room.
 - Provide students with scavenger hunt sheets. Explain to the students that they will use the clues given on their sheets to identify the ten items around the room. They must record the item number as well to identify what the item is.
 - Remind the students that the materials are from the museum and must be handled with care.
 - Clue cards with further question prompts can be placed with the item to modify the game.
 - After giving the students time to explore the different scavenger hunt items and identify them, have the students come together.
 - Gather the items from around the room and as a class work to identify them all together. Share the scavenger hunt answer key with the class.
-

Modification:

- Hold up each of the different items for all the students to see. Then pass them around and ask the students collectively what they think it is and what they think it was used for.
 - Explore the Suumacirpet — Our Way of Living Poster. Also referred to as the ancestral foods poster. The poster is available on the Alutiiq Museum website. Listen to the pronunciation of the different animals in Alutiiq and learn about how Alutiiq people harvested animals to care for their families.
-

Close and Assessment:

- Students will successfully identify the different objects and learn about the different uses.
 - Students will also learn the Alutiiq word for the different items.
-

Additional Resources:

- Alutiiq Word of the Week: Subsistence — Suumacirpet
- Alutiiq Word of the Week: Bear — Taquka'aa
- Alutiiq Word of the Week: River Otter — Aaquyaa
- Alutiiq Word of the Week: Sea Otter — Arhnaq
- Alutiiq Word of the Week: Whaler — Ar'ursulek, Arwarsulek

Subsistence Scavenger Hunt



1. **Taquka'aa, Stuk**

I am a long time Kodiak animal. Alutiiq people used to hunt my kind in the fall and spring using dead-fall traps, bow & arrow, and spears. They ate my meat and fat, used my large guts and furs to keep them warm and dry, and made jewelry out of other pieces of me.

- What number am I? _____
- What am I? _____

2. **Ar'uq, Kagit'ruaq**

This part came out of my mouth! Alutiiq people used to hunt me from kayaks with spears. Sometimes the spears had a poison made out of purple flowers called monkshood.

- What number am I? _____
- What am I? _____

3. **Napam Nukii**

These are alive under the ground and were used for making baskets to carry food such as berries, eggs, and spring greens.

- What number am I? _____
- What am I? _____

4. **Qetek**

I am not an animal! I was traded with people living on the mainland of Alaska and was used to make beautiful jewelry. I can be shined up nicely to make nose rings, beads, and labrets.

- What number am I? _____
- What am I? _____

5. **Wiinaq, Itgaq, Neneq**

I am a sea mammal, and this is one of my bones. What part of the body do you think it was? This bone was a part that helped the animal get around.

- What number am I? _____
- What am I? _____

6. **Yaamaq**

I am not an animal either! You can find me all over the island and Alutiiq people have used me to make tools like ulus, knives, net weights, and line sinkers. I can also be made into beads, labrets, and pendants.

- What number am I? _____
- What am I? _____

7. **Amutaq, Nasquq**

The animal I belonged to lives in deep water. The Alutiiq people would catch, and then eat the animals fresh, dried, smoked, or fermented.

- What number am I? _____
- What am I? _____

8. **Arhnaq, Amiq**

I am part of a sea mammal that is the largest member of the weasel family. I can keep you very warm! I have 250,000-1,000,000 hairs on every square inch of me.

- What number am I? _____
- What am I? _____

9. **Aaquya, Amiq**

Playful and mischievous, I was often a character in Alutiiq stories and am a land mammal. I lived primarily in freshwater lakes and streams and was captured with deadfall traps or with snares.

- What number am I? _____
- What am I? _____

10. **Isuwiq, Amiq**

I am part of an animal that was a very useful resource for the Alutiiq people. I was hunted from kayaks, and people used me as a source of both food and oil.

- What number am I? _____
- What am I? _____

Subsistence Scavenger Hunt

Answer Key

1. Taquka'aq — Bear, Stuk — Claw
What number am I? 4
What am I? Bear Claw
2. Ar'uq — Whale, Kagit'ruaq — Baleen
What number am I? 8
What am I? Baleen from whale's mouth
3. Napam Nukii — Spruce Root
What number am I? 15
What am I? Spruce Root
4. Qetek — Coal
What number am I? 11
What am I? Coal
5. Wiinaq — Sea Lion, Itgaq — Flipper, Neneq — Bone
What number am I? 7
What am I? Sea Lion flipper bone
6. Yaamaq — Rock
What number am I? 13
What am I? Slate
7. Amutaq — Cod, Nasquq — Head
What number am I? 9
What am I? Cod Head
8. Arhnaq — Sea Otter, Amiq — Fur
What number am I? 19
What am I? Sea Otter Fur
9. Aaquyaq — Land Otter, Amiq — Fur
What number am I? 18
What am I? Land Otter Fur
10. Isuwiq — Seal, Amiq — Skin
What number am I? 17
What am I? Harbor Seal Skin

#4

Bear Claw

Taquka'aq–Bear, Stuk–Claw

#4

What am I?

I am Kodiak Islands largest land animal.

I use this to help catch salmon.



#15

Spruce Root

Napam Nukii–Spruce Root



#15

What am I?

**I am alive under the ground.
I am used for making baskets.**

#8

Baleen from whale's mouth

Ar'uq–Whale, Kagit'ruaq–Baleen

#8

What am I?

**This part came out of my mouth.
I use it to filter my food.**

#13

Slate

Yaamaq-Rock

#13

What am I?

**People use me to make tools like ulus,
knives, net weights, and line sinkers.**

#11

Coal

Qetek–Coal

#11

What am I?

I was used to make beautiful jewelry like
nose rings,
beads, and labrets.

#7

Sea Lion Flipper Bone

Wiinaq–Sea Lion, Itgaq–Flipper, Neneq–Bone



#7

What am I?

I am a bone that helps the sea mammal move around.

#9

Cod Head

Amutaq–Cod, Nasquq–Head

#9

What am I?

I belong to an animal that lives in deep water.

**Alutiiq people eat me fresh,
smoked, dried, or fermented.**



#19

Sea Otter Fur

Arhnaq–Sea Otter, Amiq–Fur

#19

What am I?

**I am the largest member of the weasel family.
I can keep you very warm.**



#18

Land Otter Fur

Aaquyaq–Land Otter, Amiq–Fur



#18

What am I?

I am often a playful and mischievous character in Alutiiq stories.

I live in freshwater lakes and streams.



#17

Harbor Seal Fur

Isuwiq–Seal, Amiq–Skin



#17

What am I?

**I am a very useful resource for the Alutiiq people.
I am used for both food and oil.**



Mingurngasqanek Ipegyanek Aulutalilita – **LET'S MAKE GROUND SLATE TOOLS**

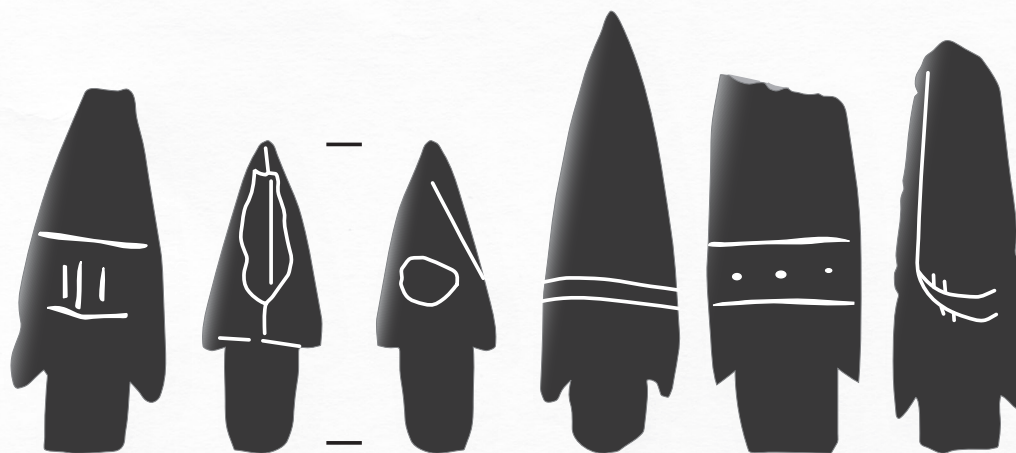
Slate is a plentiful raw material in the Kodiak Archipelago and can be fashioned into a variety of tools. In addition to the ulus and double-edged knives used to process subsistence foods, Alutiiq/Sugpiaq people ground lances, bayonets, and arrows for hunting, and fashioned beads and labrets from slate. Try your skill at slate grinding. Here are the basic steps.

STEP ONE - Select a piece of slate. Kodiak beaches have many different types—but not all slate is suitable for tool production. The ideal material is hard with few visible layers. A good way to test slate is to break it into pieces and observe how they fall apart. Choose a thin, sturdy fragment, that is internally cohesive.

STEP TWO - Use a hard beach cobble (a water-rounded rock) to chip your thin leaf of slate into a rough tool shape—working along the edges. Another way of creating a rough tool, particularly if you wish to make a lance, is to saw the slate with a hard, sharp rock. A flake from a beach cobble works well as a saw. With the flake, wear grooves into the slate from both sides and then gently snap the pieces apart along the groove.

STEP THREE - Use a hard, flat beach rock to grind a smooth surface on both faces of your tool. Keep the tool flat as you grind. Water and a small amount of sand make a good lubricant and will speed the grinding process. Keep grinding until you have a smooth, flat surface. Try to remove any nicks or indentations in the slate.

STEP FOUR - Sharpen the edges of your tool by grinding at an angle. Turn the tool over to grind both sides of each edge. This will create a bevel (a v-shaped edge) that can be sharpened and resharpened.



Ground slate points with makers marks from Late Kachemak tradition sites.

LESSON 8: RUSSIAN FOOD

OVERVIEW

Food is an important component of the Alutiiq culture. The way food was prepared, changed with the introduction of food items by the Russians. Students will have the opportunity to explore the traditional and non-traditional foods of their community through Elder presentations and by the end of the activity be able to identify the correct classification.

STANDARDS ADDRESSED

Alaska Content

History B.1b, B.2, C.3

Culture E.3, E.4, E.5

OBJECTIVE

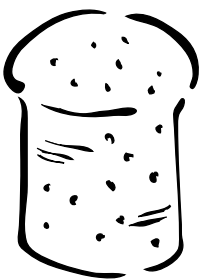
Students will classify subsistence foods and Russian introduced foods using a Venn diagram.

TEACHER PREPARATION MATERIALS

- Prepare pictures/flashcards/real food examples
- Chart paper and markers for each student

ACTIVITY PROCEDURE

1. Have students discuss what they know about the foods they eat today. Have students list some of their favorite family dishes then describe the dish by the known history of the food whether or not they are traditional subsistence foods or commercial foods.



2. Lay out examples of foods (pictures, flashcards, or real food) on a table. A minimum of the following should be included for this activity: fish, seal, seal



oil, flour, salt, sugar, potatoes, tea, salted fish, salmon berries, fish pie, milk and akutaq. To begin discussion of the foods, guide students through the Alutiiq names of each food in random order.

3. Give students chart paper and markers and have them draw a Venn diagram and asked to look at the foods to determine how the foods could be classified. All reasonable answers should be acknowledged.
4. When class has correctly classified foods for this activity, have students fill in their Venn diagram. The categories are: **Alutiiq subsisted foods, Russian introduced foods, and both.** Then have students describe why foods were put in the various classifications.

ASSESSMENT ACTIVITY

As homework, have students prepare one of the foods in the middle category (Russian introduced foods) with an Elder or family member and write a recipe for the dish prepared. Describe each ingredient as traditional or introduced, and their family's reaction to the flavor.

ALUTIIQ & RUSSIAN FOODS

Fish — Iqalluk
Seal — Isuwiq
Seal Oil — Uquq
Fermented Fish Eggs — Sisut (N); Piirnat (S)
Flour — Mukaaq
Sugar — Saagaraq
Potato — Kartuugaag
Tea — Caayuq
Fish Pie — Piruq
Eskimo Ice Cream — Akutaq

Caayurturlita – Let's Drink Tea

It is always fun to share food and Alutiiq families often offer visitors a snack. Create teatime for your family or friends with these recipes. Add a few pieces of smoked salmon to the table to compliment these dishes.

Alutiit Caayuat – Alutiiq Tea

Ingredients:

Hot water
Tea bags (herbal or black tea)
Berry jelly, mashed berries, or Nootka rose petals

Instructions:

Boil water. Place a tea bag in a mug and fill the mug with hot water. Allow the tea to steep and then remove the tea bag. To flavor, stir in a few mashed berries, a teaspoon of berry jelly, or a few Nootka rose petals. Alutiiq people often add high bush cranberries or jelly made from these berries to their tea.

Kasaakat Caayuat – Russian Tea

Ingredients:

1/3 cup Tang mix
1/3 cup granulated sugar
2 tablespoon instant lemon tea
1/2 teaspoon cinnamon
1/2 teaspoon cloves

Instructions:

In a clean 8 oz jar, combine all ingredients and secure the lid tightly. Shake the jar to mix the ingredients well.

Use:

Mix one to two tablespoons of mix in a mug and add boiling water. Stir and enjoy!



Alutiiq Seasonal Cycle Lesson Plan



Grade: 3rd-5th

Time: 3 – 5 days

Lesson Description: Students will learn about the different plants and animals Alutiiq people harvest throughout the year, the tools and techniques used to harvest them, and the ways Alutiiq people preserved and stored food.



Photo: Alutiiq Subsistence Cycle Activity

Kit Includes:

- Plant gallery:
<https://alutiiqmuseum.org/alutiiq-people/subsistence/plant-gallery/>
- *Naut'staarpet—Our Plants* (book)
- Subsistence calendar worksheet

Materials Needed:

- White paper plates
- Markers or colored pencils
- Brad fasteners
- Glue sticks (optional)
- Internet access

Alutiiq Vocabulary	Art Elements	Art Principles	Content Connections
<i>Suumacirpet</i> —Subsistence	<input checked="" type="checkbox"/> Line	<input checked="" type="checkbox"/> Pattern	AK Cultural Standards
<i>Alagnaq</i> —Berry	<input checked="" type="checkbox"/> Shape	<input type="checkbox"/> Rhythm/ Movement	AK Art Standards
<i>Suit'kaa</i> q—Flower	<input checked="" type="checkbox"/> Color	<input checked="" type="checkbox"/> Proportion/ Scale	AK Science Standards
<i>Pisurta</i> —Hunter	<input checked="" type="checkbox"/> Value	<input checked="" type="checkbox"/> Balance	
<i>Iqallugsurluni</i> —Fishing	<input checked="" type="checkbox"/> Texture	<input type="checkbox"/> Unity	
	<input checked="" type="checkbox"/> Space/ Perspective	<input checked="" type="checkbox"/> Emphasis	

Objectives and Assessment Criteria:

Students will learn...

- About the different local plants and animals harvested in a year.
- The different harvesting tools and techniques used by Alutiiq people in the past and present.
- The ways Alutiiq people preserved and stored food.

Cultural Relevance:

There is no easy way to translate the word subsistence into the Alutiiq language. Westerners often think of subsistence as the process of obtaining and eating wild foods, an

alternative to buying groceries. This definition, however, fails to capture the complexities of living off the land.

To the Alutiiq people, subsistence is life. Collecting wild foods is not simply an economic activity, but a central component of social and spiritual life. Through hunting, fishing, and gathering, Alutiiq people experience and express their Native identity. They explore their deep and enduring connection to the land. They care for their families and communities. They celebrate and sustain life.

To Alutiiq people, subsistence is also a birthright, a way of living passed down from ancestors that has sustained countless generations. As one Alutiiq leader puts it, “it’s being who you are.” While not a literal translation of the word subsistence, *suumacirpet*, “our way of living,” expresses these many connections.

Create:

Day 1:

- Ask students if they go berry picking, fishing, hunting, or foraging for wild resources in Kodiak. Ex: hunting or fishing for food, collecting plants for medicine, gathering wood for a fire, etc.
 - At what time of the year or season do they gather different subsistence items?
 - Who did they go with? Friends, family, Elders?
 - What did they learn about the different plants and animals? Who did they learn from?
 - What do they do with the items they collected? Make a healing salve, eat a fish, share with others?
- Read the Cultural Relevance section about subsistence to your students.
- Explain to your students that they will be researching and learning about the different subsistence items available throughout the year.
- Provide students with internet access or print the handouts for your class in advance.
 - *Uksug*—An Alutiiq Year Traditions Handout
<https://alutiiqmuseum.org/wp-content/uploads/2024/01/AlutiiqYear2022.pdf>
 - *Cisllaq*—Calendar Traditions Handout
<https://alutiiqmuseum.org/wp-content/uploads/2024/01/Calendar2022.pdf>
- Have a classroom discussion with your students about what they learned about the subsistence items harvested each month of the year.
- Remind the class that it is very important to be 100% certain you are identifying the correct items before eating or touching things when harvesting wild resources.
- Provide students with a blank piece of paper and ask them to create a KWL chart. Have students define subsistence and create a table as shown below.
Define subsistence:

What I know?	What I want to know?	What I learned?
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- Once completed, the students will hand this in before they leave the classroom.

Day 2:

- Review subsistence with your students before introducing the activity.
- Provide students with the subsistence calendar worksheet attached to this lesson. Students can work individually or in groups.
- Ask students to complete the worksheet filling out each section using various resources.
 - Plant Gallery: <https://alutiiqmuseum.org/alutiiq-people/subsistence/plant-gallery/>
 - Book: *Naut'staarpet*—Our Plants by Priscilla Russell

- Alutiiq Plants App. Free app for Android and iOS. Available on app stores.
- *Naut'staat Alutiit'stun*—Plants in Alutiiq Society: <https://alutiiqmuseum.org/wp-content/uploads/2024/01/PlantsInSociety2022.pdf>
- Once the students have completed the subsistence calendar worksheet, have them share their finds with the class. While they share, record the answers on the board, creating a classroom list. An answer key to this activity is provided to assist the students.
- It is important to note that there are laws that regulate subsistence. Certain laws regulate seasons that people can collect and hunt. Subsistence may also be different in each village. Different villages may follow different subsistence schedules.

Day 3:

- Using the completed worksheet, ask students, how would subsistence change through the year? How would a meal in the summer differ from a meal in the winter?
- Explain to the students that they will be creating a subsistence wheel dividing the twelve months of the year. For each month they will include plants and animals harvested.
- Provide the students with white paper plates.
- You will notice there are two options for the attached diagrams. One option has different sections that can be completed more in depth. Students can organize different sections such as land in the outer circle, ocean in the middle circle, and plants in the center circle. The other option is having the students not divide the sections and include all the plants and animals together. A third option is having your students draw their own sections with plants and animals not using the diagrams provided. Choose the option that works best for your students.
- Once decided, either provide students with the attached diagram to cut and glue onto the paper plate or have the students draw twelve sections.
- When they have made twelve sections, have students label each month in Alutiiq and English.
- Next, have the students draw the different plants and animals available in each month, or color, cut, and glue the animals and plants in the monthly sections.
- Once the chart is complete, have the students cut out the arrow. Then use a hole punch in the middle of the paper plate to insert a brad with the arrow.
- Display the wheels in the classroom where they are accessible.
- Each month, have the students move the arrow to the next section to show the subsistence available.

Day 4:

- Once the subsistence wheels are complete, transition into the harvesting tools and techniques people use today. Ask students what tools and techniques people use today for harvesting and gathering. Examples: Fishing rods, nets, berry pickers, shovels, and skiffs.
- Have students research the tools, techniques, and harvesting traditions. Discuss the similarities and differences between them.
- To assist students, show them how to navigate the resources below. You can also assign students different tools and techniques suggested below to help them focus their research.
 - Harvesting Traditions: <https://alutiiqmuseum.org/alutiiq-people/subsistence/#traditions>
 - Identifying Ancestral Tools: <https://alutiiqmuseum.org/museum/collections/alutiiq-technological-inventory/>
 - Coloring *iqalluut*—Fish Publication: <https://alutiiqmuseum.org/wp-content/uploads/2024/01/ColoringFish.pdf>
 - Example compare and contrasting:

- Root digger vs. Gardening shovel
- Hand-picking vs. Berry picker
- Woven basket vs. Plastic bucket
- Greywacke stone anchor vs. Metal Anchor
- Kayak vs. Skiff
- Fishing net made from nettle fiber and porpoise sinew vs. Fishing net made from nylon and plastic
- Have students share their finds with the class. You can also have students record the similarities and differences on a Venn Diagram highlighting specific tools.

Day 5:

- Once students understand the different tools, techniques, and harvesting traditions, introduce food preservation.
- Ask the students how they store food—e.g., in a refrigerator, cabinets, cans, jars, bags, etc. Have a classroom conversation. Explain to students that people did not have refrigerators or metal cans a long time ago.
- Have the students explore different resources to learn how people preserved and stored food. Visit the Alutiiq Museum's website to see videos of Elder's talking about harvesting and preserving foods.
 - <https://alutiiqmuseum.org/alutiiq-people/subsistence/wild-foods-videos/>
- You can also print these Word of the Week lessons in advance and provide them to your students.
 - Alutiiq Word of the Week: Pit, hole in the ground—*Laakaq*
<https://alutiiqmuseum.org/collection/Detail/word/837>
 - Alutiiq Word of the Week: Seal Stomach—*Isuwim Suqaa*
<https://alutiiqmuseum.org/collection/Detail/word/439>
 - Alutiiq Word of the Week: Fish Rack—*Initaq*
<https://alutiiqmuseum.org/collection/Detail/word/233>
 - Alutiiq Word of the Week: Hang (to)—*Iniluku*
<https://alutiiqmuseum.org/collection/Detail/word/831>
 - Alutiiq Word of the Week: Floor—*Nateq*
<https://alutiiqmuseum.org/collection/Detail/word/238>
 - Alutiiq Word of the Week: Basket—*Inartaq*
<https://alutiiqmuseum.org/collection/Detail/word/77>
 - Alutiiq Word of the Week: Fermented oil, berry pulp & vegetables—*Tugluq*
<https://alutiiqmuseum.org/collection/Detail/word/608>
- Once students have explored the resources about food preservation and storage, have a classroom discussion. What were the most important ways to preserve food in the past? How are these different or similar to how we preserve food today?

Close and Assessment:

- Students learned about the different local plants and animals harvested in a year.
- Students successfully completed the subsistence worksheet and cycle wheel.
- Students learned about the tools and techniques used for harvesting in the past and the present.
- Students learned the ways Alutiiq people preserved and stored food.

Modification:

- Go on a guided plant walk with an Alutiiq plantlore expert during each season. Have your students' journal about the different plants they see and learn about.
 - Take a fieldtrip to the Alutiiq Museum to see the different harvesting tools and food preservation items in the museum's collections.
 - Create a large classroom seasonal cycle wheel. Have the students either draw or color and cut out animals and plants to add to the wheel. You can laminate the wheel and attach the different subsistence items using Velcro. Indicating the different subsistence items found in each month. This could be reused each year, with different students completing the activity.
 - Each day you can have students make a KWL (What I know, what I want to know, and what I learned) chart to hand in at the end of each lesson to assess the students' understanding of the topic.
-

Additional Resources:

- Alutiiq Word of the Week: Berry—*Alagnaq*
<https://alutiiqmuseum.org/collection/Detail/word/120>
- Alutiiq Word of the Week: Berry Picking—*Nunaquluni, Alagnarsurluni*
<https://alutiiqmuseum.org/collection/Detail/word/121>
- Alutiiq Word of the Week: Plants—*Naut'staat*
<https://alutiiqmuseum.org/collection/Detail/word/393>
- Alutiiq Word of the Week: Eggs—*Manit*
<https://alutiiqmuseum.org/collection/Detail/word/218>
- Alutiiq Word of the Week: Flower—*Suit'kaa*
<https://alutiiqmuseum.org/collection/Detail/word/239>
- Alutiiq Word of the Week: Jam—*WaRiinyaq*
<https://alutiiqmuseum.org/collection/Detail/word/849>
- Alutiiq Word of the Week: Spices—*Piturni'isuutet*
<https://alutiiqmuseum.org/collection/Detail/word/652>
- Alutiiq Word of the Week: Summer—*Kiak*
<https://alutiiqmuseum.org/collection/Detail/word/490>
- Alutiiq Word of the Week: Winter—*Uksuq*
<https://alutiiqmuseum.org/collection/Detail/word/547>
- Alutiiq Word of the Week: Spring—*Ugnerkaq*
<https://alutiiqmuseum.org/collection/Detail/word/472>
- Alutiiq Word of the Week: Fall, Autumn—*Uksuaq*
<https://alutiiqmuseum.org/collection/Detail/word/225>
- Alutiiq Word of the Week: Year—*Uksuq, Kiak* (during Russian times)
<https://alutiiqmuseum.org/collection/Detail/word/553>

Name: _____

Date: _____

Subsistence Calendar Worksheet

Uksuq, Kiak—Year

Naut'staat—Plants

Nuna—Land

Imaq—Ocean

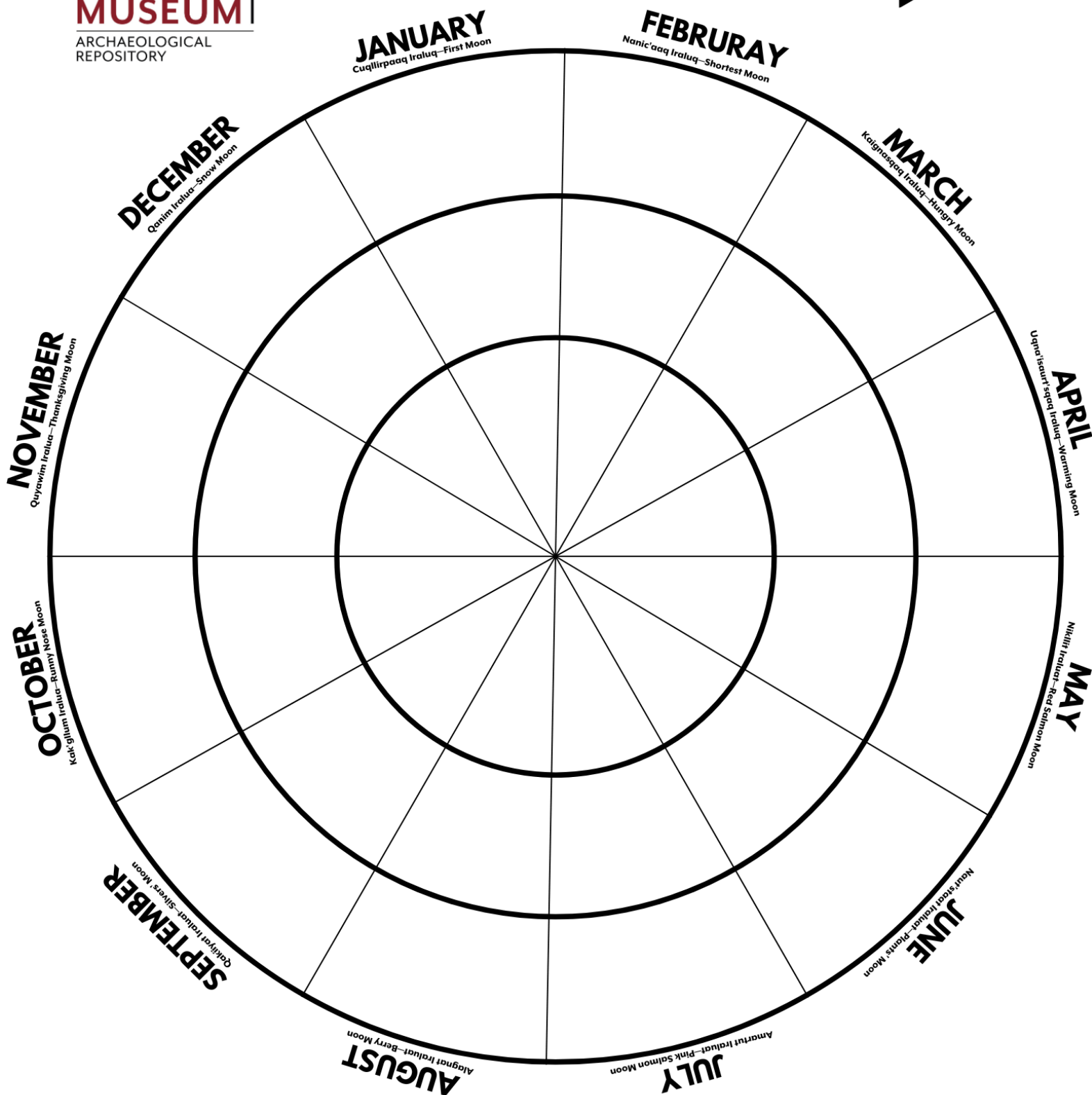
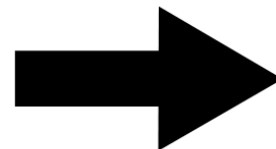
<i>Cuqllirpaaq lraluq</i> — First Moon January			
<i>Nanic'aag lraluq</i> — Shortest Moon February			
<i>Kaignasqaq lraluq</i> — Hungry Moon March			
<i>Uqna'isaurt'sqaq lraluq</i> — Warming Moon April			
<i>Nikllit lraluat</i> — Red Salmon Moon May			
<i>Naut'staat lraluat</i> — Plants' Moon June			
<i>Amartut lraluat</i> — Pink Salmon Moon July			
<i>Alagnat lraluat</i> — Berry Moon August			
<i>Qakiiyat lraluat</i> — Silvers' Moon September			
<i>Kak'gllum lralua</i> — Runny Nose Moon October			
<i>Quyawim lralua</i> — Thanksgiving Moon November			
<i>Qanim lralua</i> — Snow Moon December			

Answer Key: Calendar Worksheet

<i>Uksug, Kiak</i> —Year	<i>Naut'staat</i> —Plants	<i>Nuna</i> —Land	<i>Imaq</i> —Ocean
<i>Cuqlirpaag Iraluq</i> — First Moon January	<i>Pukilaag, Tep'aaq</i> (small, full log)—Driftwood	<i>Kaugya'aaq</i> —Fox <i>Qateryuk, Qat'ryuk</i> —Ptarmigan <i>Saqul'aaq</i> —Duck <i>Lagiq</i> —Goose	<i>Wiinaq</i> —Sea Lion <i>Isuwiq</i> —Seal <i>Salalek</i> —Shellfish <i>Amutaq</i> —Cod
<i>Nanic'aaq Iraluq</i> — Shortest Moon February	<i>Pukilaag, Tep'aaq</i> (small, full log)—Driftwood	<i>Kaugya'aaq</i> —Fox <i>Qateryuk, Qat'ryuk</i> —Ptarmigan	<i>Wiinaq</i> —Sea Lion <i>Isuwiq</i> —Seal <i>Salalek</i> —Shellfish <i>Amutaq</i> —Cod
<i>Kaignasqaq Iraluq</i> — Hungry Moon March	<i>Pukilaag, Tep'aaq</i> (small, full log)—Driftwood	<i>Qateryuk, Qat'ryuk</i> —Ptarmigan <i>Manit</i> —Eggs	<i>Wiinaq</i> —Sea Lion <i>Isuwiq</i> —Seal <i>Salalek</i> —Shellfish <i>Amutaq</i> —Cod <i>Anciq</i> —Trout
<i>Uqna'isaurt'sqaq Iraluq</i> — Warming Moon April	<i>Pukilaag, Tep'aaq</i> (small, full log)—Driftwood <i>Naut'staat</i> —Plants	<i>Taquka'aaq</i> —Bear <i>Manit</i> —Eggs	<i>Wiinaq</i> —Sea Lion <i>Isuwiq</i> —Seal <i>Salalek</i> —Shellfish <i>Anciq</i> —Trout <i>Iqalluk</i> —Salmon <i>Ar'uq, Arwaq</i> —Whale
<i>Niklilit Iraluat</i> — Red Salmon Moon May	<i>Pukilaag, Tep'aaq</i> (small, full log)—Driftwood <i>Naut'staat</i> —Plants <i>Nimruiyaq</i> —Willow	<i>Taquka'aaq</i> —Bear <i>Manit</i> —Eggs	<i>Wiinaq</i> —Sea Lion <i>Isuwiq</i> —Seal <i>Salalek</i> —Shellfish <i>Anciq</i> —Trout <i>Iqalluk</i> —Salmon <i>Ar'uq, Arwaq</i> —Whale
<i>Naut'staat Iraluat</i> — Plants' Moon June	<i>Pukilaag, Tep'aaq</i> (small, full log)—Driftwood <i>Alagnat</i> —Berries <i>Akogwik</i> —Cloudberry locally Moss Berry <i>Alagnaag</i> —Salmonberry <i>Naut'staat</i> —Plants	<i>Taquka'aaq</i> —Bear <i>Manit</i> —Eggs	<i>Wiinaq</i> —Sea Lion <i>Isuwiq</i> —Seal <i>Salalek</i> —Shellfish <i>Anciq</i> —Trout <i>Iqalluk</i> —Salmon <i>Ar'uq, Arwaq</i> —Whale
<i>Amartut Iraluat</i> — Pink Salmon Moon July	<i>Pukilaag, Tep'aaq</i> (small, full log)—Driftwood <i>Alagnat</i> —Berries <i>Alagnaag</i> —Salmonberry <i>Naut'staat</i> —Plants <i>Uqgwik</i> —Sitka Alder, Mountain Alder	<i>Taquka'aaq</i> —Bear	<i>Wiinaq</i> —Sea Lion <i>Isuwiq</i> —Seal <i>Salalek</i> —Shellfish <i>Anciq</i> —Trout <i>Iqalluk</i> —Salmon <i>Ar'uq, Arwaq</i> —Whale
<i>Alagnat Iraluat</i> — Berry Moon August	<i>Pukilaag, Tep'aaq</i> (small, full log)—Driftwood <i>Alagnat</i> —Berries <i>Cuaq</i> —Alpine Blueberries/Bog Blueberry <i>Augyaq</i> —Crowberry/Blackberry <i>Kenegtaq</i> —Low Bush Cranberry <i>Alagnaag</i> —Salmonberry <i>Naut'staat</i> —Plants	<i>Tuntuq</i> —Deer	<i>Wiinaq</i> —Sea Lion <i>Isuwiq</i> —Seal <i>Salalek</i> —Shellfish <i>Anciq</i> —Trout <i>Iqalluk</i> —Salmon <i>Ar'uq, Arwaq</i> —Whale
<i>Qakiyat Iraluat</i> — Sivers' Moon September	<i>Pukilaag, Tep'aaq</i> (small, full log)—Driftwood <i>Alagnat</i> —Berries <i>Cuaq</i> —Alpine Blueberries/Bog Blueberry <i>Augyaq</i> —Crowberry/Blackberry <i>Kenegtaq</i> —Low Bush Cranberry <i>Naut'staat</i> —Plants	<i>Taquka'aaq</i> —Bear <i>Saqul'aaq</i> —Duck <i>Lagiq</i> —Goose <i>Kaugya'aaq</i> —Fox <i>Tuntuq</i> —Deer	<i>Wiinaq</i> —Sea Lion <i>Isuwiq</i> —Seal <i>Salalek</i> —Shellfish <i>Anciq</i> —Trout <i>Iqalluk</i> —Salmon <i>Ar'uq, Arwaq</i> —Whale
<i>Kak'gllum Iralua</i> — Runny Nose Moon October	<i>Pukilaag, Tep'aaq</i> (small, full log)—Driftwood <i>Alagnat</i> —Berries <i>Naut'staat</i> —Plants <i>Shnapiishniik, Cipau'iniik</i> —rose; <i>Qelepaaq</i> —rose hip—Nootka Rose	<i>Taquka'aaq</i> —Bear <i>Saqul'aaq</i> —Duck <i>Lagiq</i> —Goose <i>Kaugya'aaq</i> —Fox <i>Tuntuq</i> —Deer	<i>Wiinaq</i> —Sea Lion <i>Isuwiq</i> —Seal <i>Salalek</i> —Shellfish <i>Anciq</i> —Trout <i>Iqalluk</i> —Salmon
<i>Quyawim Iralua</i> — Thanksgiving Moon November	<i>Pukilaag, Tep'aaq</i> (small, full log)—Driftwood <i>Naut'staat</i> —Plants <i>Shnapiishniik, Cipau'iniik</i> —rose; <i>Qelepaaq</i> —rose hip—Nootka Rose	<i>Taquka'aaq</i> —Bear <i>Saqul'aaq</i> —Duck <i>Lagiq</i> —Goose <i>Kaugya'aaq</i> —Fox <i>Tuntuq</i> —Deer	<i>Wiinaq</i> —Sea Lion <i>Isuwiq</i> —Seal <i>Salalek</i> —Shellfish <i>Anciq</i> —Trout <i>Iqalluk</i> —Salmon
<i>Qanim Iralua</i> — Snow Moon December	<i>Pukilaag, Tep'aaq</i> (small, full log)—Driftwood	<i>Saqul'aaq</i> —Duck <i>Lagiq</i> —Goose <i>Qateryuk, Qat'ryuk</i> —Ptarmigan <i>Kaugya'aaq</i> —Fox <i>Tuntuq</i> —Deer	<i>Wiinaq</i> —Sea Lion <i>Isuwiq</i> —Seal <i>Salalek</i> —Shellfish <i>Amutaq</i> —Cod

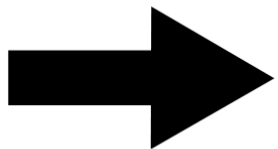
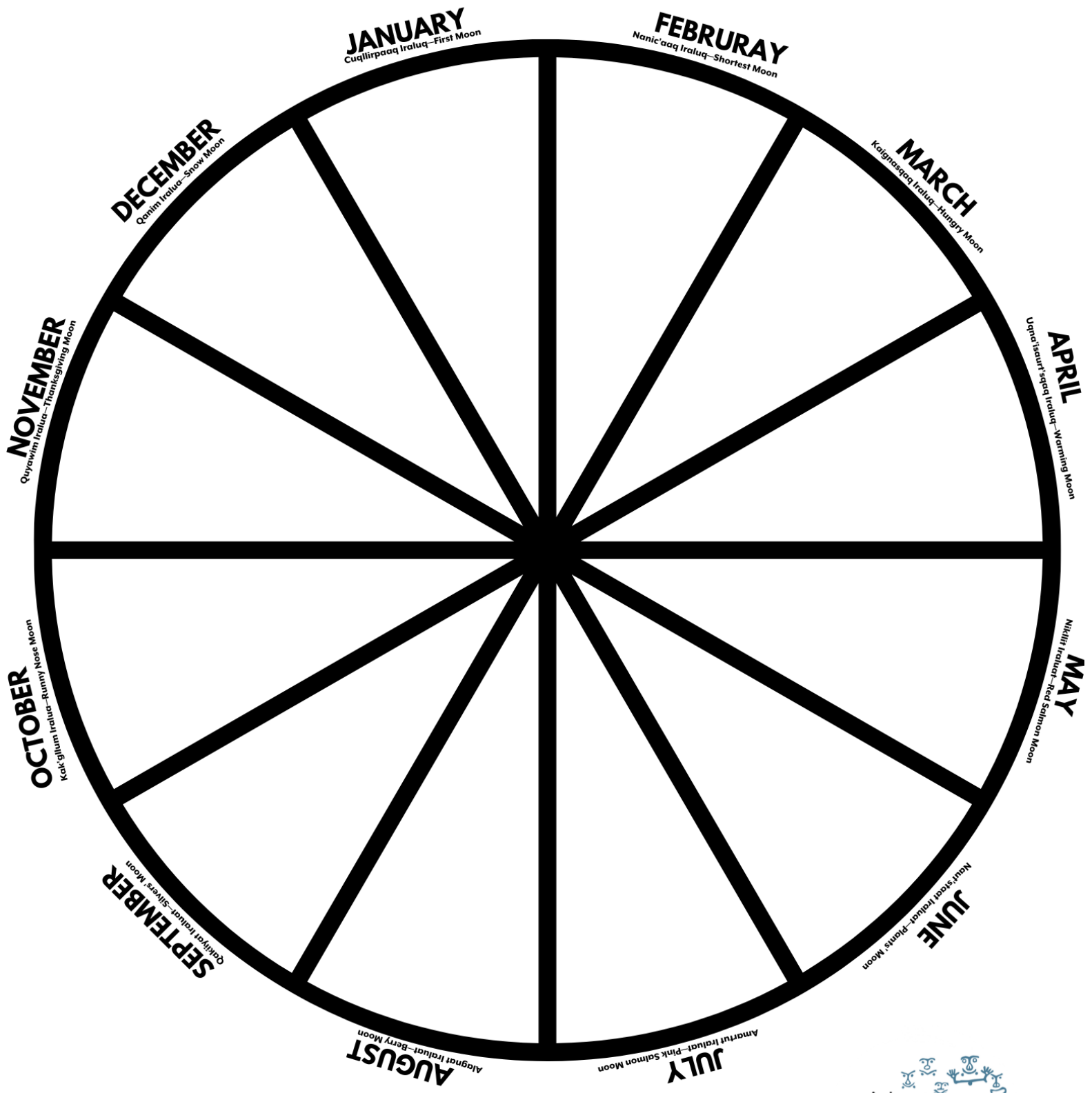
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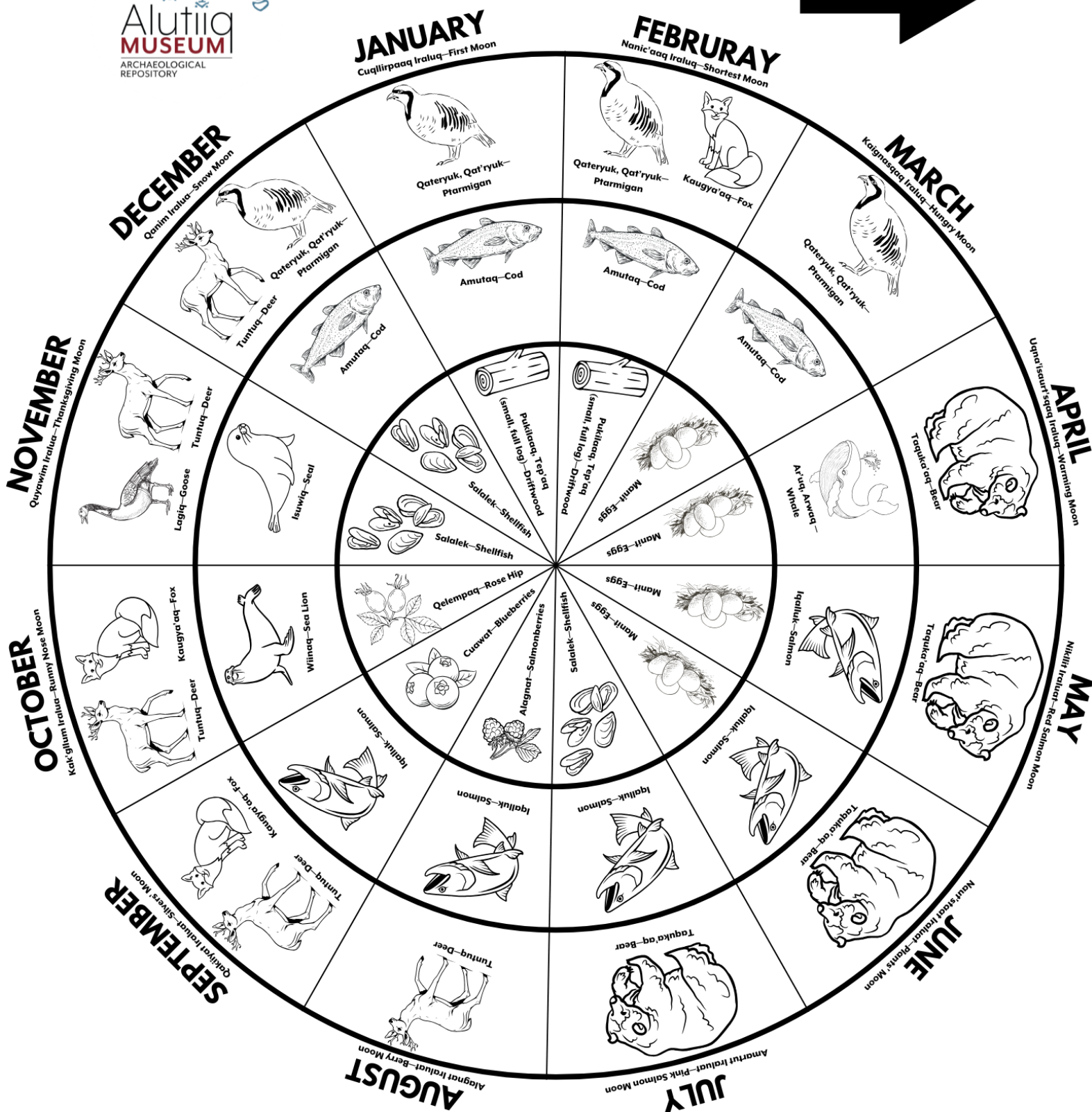
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Subsistence Cycle

 Tuntuq—Deer	 Iqalluk—Salmon	 Amutaq—Cod	 Cuawat—Blueberries	 Qateryuk, Qat'ryuk—Ptarmigan
 Alagnat—Salmonberries	 Lagiq—Goose	 Isuwiaq—Seal	 Ar'uq, Arwaq—Whale	 Manit—Eggs
 Salalek—Shellfish	 Kenegtaq—Low Bush Cranberry	 Pukilaq, Tep'aaq (small, full log)—Driftwood	 Saqul'aaq—Duck	 Qelepaaq—Rose Hip
 Wiinaq—Sea Lion	 Anciq—Trout	 Laagaq—Chocolate Lily	 Taqua'aaq—Bear	 Kaugya'aaq—Fox

DATE: _____



Subsistence Lesson Plan

Grade: 6th-8th

Time: 2 days

Lesson Description: Students will learn seasonal harvesting, the tools and techniques used, and the ways Alutiiq people preserved and stored food.



Photo: Salmon hanging in Herman Squartsoff's smoke house.

Kit Includes:

- *Imaken Ima'ut*—from the Past to the Future (book)
- Subsistence worksheet

Materials Needed:

- Internet access

Alutiiq Vocabulary	Art Elements	Art Principles	Content Connections
<i>Suumacirpet</i> —Subsistence	<input type="checkbox"/> Line	<input checked="" type="checkbox"/> Pattern	AK Cultural Standards
<i>Pisurta</i> —Hunter	<input type="checkbox"/> Shape	<input type="checkbox"/> Rhythm/ Movement	AK Art Standards
<i>Iqallugsurluni</i> —Fishing	<input type="checkbox"/> Color	<input checked="" type="checkbox"/> Proportion/ Scale	AK Science Standards
<i>Animal</i> — <i>Unguwallriaq</i>	<input checked="" type="checkbox"/> Value	<input type="checkbox"/> Balance	
<i>Uksuq</i> —Year	<input type="checkbox"/> Texture	<input type="checkbox"/> Unity	
	<input checked="" type="checkbox"/> Space/ Perspective	<input checked="" type="checkbox"/> Emphasis	

Objectives and Assessment Criteria:

Students will learn...

- How and when animals were introduced to the Kodiak Archipelago.
- What season different subsistence is harvested.
- The different harvesting tools and techniques used by Alutiiq people in the past and present.
- The ways Alutiiq people preserved and stored food.

Cultural Relevance:

There is no easy way to translate the word subsistence into the Alutiiq language. Westerners often think of subsistence as the process of obtaining and eating wild foods, an alternative to buying groceries. This definition, however, fails to capture the complexities of living off the land.

To the Alutiiq people, subsistence is life. Collecting wild foods is not simply an economic activity, but a central component of social and spiritual life. Through hunting, fishing, and gathering, Alutiiq

people experience and express their Native identity. They explore their deep and enduring connection to the land. They care for their families and communities. They celebrate and sustain life.

To Alutiiq people, subsistence is also a birthright, a way of living passed down from ancestors that has sustained countless generations. As one Alutiiq leader puts it, “it’s being who you are.” While not a literal translation of the word subsistence, *suumacirpet*, “our way of living,” expresses these many connections.

Create:

Day 1:

- Ask students if they go berry picking, fishing, hunting, or foraging for wild resources in Kodiak. Ex: hunting or fishing for food, collecting plants for medicine, gathering wood for a fire, etc.
 - At what time of the year or season do they gather different subsistence items?
 - Who did they go with? Friends, family, Elders?
 - What did they learn about the different plants and animals? Who did they learn from?
 - What do they do with the different items they collected? Make a healing salve, eat a fish, share with others?
- Read the Cultural Relevance section about subsistence to your students.
- Remind students that it is very important to be 100% certain you are identifying the correct items before eating or touching things when harvesting wild resources.
- Explain to your students that they will be researching and learning about the different subsistence items available throughout the year.
- Divide students into groups. Provide each group with a different subsistence category to research:
 1. Riverine/lake fish
 2. Marine fish
 3. Sea mammals
 4. Terrestrial birds (Birds on land, lakes, and rivers)
 5. Sea birds
 6. Land mammals
 7. Plants and Seaweed*

*If students choose plants and seaweed, have them learn about introduced species, native species, and invasive species. Students should also understand the complexity around plant introductions. These are helpful resources for plants:

 - Online Plant Gallery: <https://alutiiqmuseum.org/alutiiq-people/subsistence/plant-gallery/>
 - *Naut'staat Alutii'tstun*—Plants in Alutiiq Society: <https://alutiiqmuseum.org/wp-content/uploads/2024/01/PlantsInSociety2022.pdf>
 - *Naut'staat Neq'rkaqluki*—Plants as Food: <https://alutiiqmuseum.org/wp-content/uploads/2024/01/PlantsAsFood.pdf>
 - Plant Crafts: <https://alutiiqmuseum.org/alutiiq-people/subsistence/plant-crafts/>
- Provide students with the subsistence worksheet. Explain to your students that they will research what season the subsistence is harvested, what tools are used in the past and present, and how the subsistence harvests were preserved and stored.
- Provide students with internet access or print these handouts for your class in advance.
 - *Uksuq*—An Alutiiq Year Traditions Handout
<https://alutiiqmuseum.org/wp-content/uploads/2024/01/AlutiiqYear2022.pdf>
 - *Cisllaaq*—Calendar Traditions Handout
<https://alutiiqmuseum.org/wp-content/uploads/2024/01/Calendar2022.pdf>
 - Harvesting Traditions: <https://alutiiqmuseum.org/alutiiq-people/subsistence/#traditions>

- Identifying Ancestral Tools: <https://alutiiqmuseum.org/museum/collections/alutiiq-technological-inventory/>
- Visit the Alutiiq Museum's website to see videos of Elder's talking about harvesting and preserving foods: <https://alutiiqmuseum.org/alutiiq-people/subsistence/wild-foods-videos/>
- Coloring *Iqalluut*—Fish Publication: <https://alutiiqmuseum.org/wp-content/uploads/2024/01/ColoringFish.pdf>
- You can also print these Word of the Week lessons in advance and provide them to your students.
 - Alutiiq Word of the Week: Pit, hole in the ground—*Laakaq*
<https://alutiiqmuseum.org/collection/Detail/word/837>
 - Alutiiq Word of the Week: Seal Stomach—*Isuwim Suqaa*
<https://alutiiqmuseum.org/collection/Detail/word/439>
 - Alutiiq Word of the Week: Fish Rack—*Initaq*
<https://alutiiqmuseum.org/collection/Detail/word/233>
 - Alutiiq Word of the Week: Hang (to)—*Iniluku*
<https://alutiiqmuseum.org/collection/Detail/word/831>
 - Alutiiq Word of the Week: Floor—*Nateq*
<https://alutiiqmuseum.org/collection/Detail/word/238>
 - Alutiiq Word of the Week: Basket—*Inartaq*
<https://alutiiqmuseum.org/collection/Detail/word/77>
 - Alutiiq Word of the Week: Fermented oil, berry pulp & vegetables—*Tugluq*
<https://alutiiqmuseum.org/collection/Detail/word/608>
- Once students have explored the resources and completed the subsistence worksheet. Have a classroom discussion.
- It is important to note that there are laws that regulate subsistence. Certain laws regulate seasons that people can collect and hunt. Subsistence may also be different in each village. Different villages may follow different subsistence schedules.

Day 2:

- Ask students what animals are native to Kodiak Island.
 1. Brown Bear
 2. Red Fox
 3. River Otter
 4. Short-tailed Weasel
 5. Bats
 6. Tundra Vole
- Explain to students that some animals were introduced to Kodiak by people. They were intentionally brought to Kodiak to provide resources for the people who live here. Some introductions were successful, while others failed.
- Have students use the publication to learn about Kodiak's animal introductions. You can also provide students with the excerpt and table provided in the lesson plan.
 - Animal Introductions (Page 121) *Imaken Ima'ut*—From the Past to the Future (book)
- Have a classroom discussion on the uses these animals provide for subsistence. Ex: Deer for food. Once students learn about animal introductions and their use for subsistence, transition into another important topic: weather.
- It is important for students to recognize and understand how much the weather affects subsistence. If the weather is too hot or cold, it affects the food available for harvest. For example, plants will either not grow or will die too fast. Clams may carry toxins bad for human consumption due to a few factors, including changes to water temperature. This is known as Red Tide. Stormy weather can also prevent harvesters from going out on the water to hunt or fish.

- Discuss the importance subsistence has on communities and the many factors that contribute to sustainability. It is a way of life and people rely on the natural resources and food provided by the environment. If a resource is not available, that can impact a community. People and animals can go hungry or be forced to use other resources, move to a new area, trade with neighbors, etc.
- Respect for the land is another important aspect of harvesting in Alutiiq culture. Alutiiq people harvest respectfully, taking what they need. For example, if someone harvests from a salmonberry patch, they do not take all the berries. They will leave some for others and for animals.

Close and Assessment:

- Students learned how and when animals were introduced to Kodiak.
- Students successfully completed the subsistence worksheet.
- Students learned tools and techniques used for harvesting in the past and the present.
- Students learned the harvesting seasons and ways Alutiiq people preserved and stored food.

Modification:

- Have students compare and contrast the different harvesting tools and techniques used in the past and the present. Students can record their finds on a Venn diagram.
- Take a fieldtrip to the Alutiiq Museum to see the different harvesting tools and food preservation items in the museum's collections.

Additional Resources:

- Alutiiq Word of the Week: Berry—*Alagnaq*
<https://alutiiqmuseum.org/collection/Detail/word/120>
- Alutiiq Word of the Week: Berry Picking—*Nunaquluni, Alagnarsurluni*
<https://alutiiqmuseum.org/collection/Detail/word/121>
- Alutiiq Word of the Week: Plants—*Naut'staat*
<https://alutiiqmuseum.org/collection/Detail/word/393>
- Alutiiq Word of the Week: Eggs—*Manit*
<https://alutiiqmuseum.org/collection/Detail/word/218>
- Alutiiq Word of the Week: Jam—*WaRiinyaq*
<https://alutiiqmuseum.org/collection/Detail/word/849>
- Alutiiq Word of the Week: Spices—*Piturni'isuutet*
<https://alutiiqmuseum.org/collection/Detail/word/652>
- Alutiiq Word of the Week: Summer—*Kiak*
<https://alutiiqmuseum.org/collection/Detail/word/490>
- Alutiiq Word of the Week: Winter—*Uksuq*
<https://alutiiqmuseum.org/collection/Detail/word/547>
- Alutiiq Word of the Week: Spring—*Ugnerkaq*
<https://alutiiqmuseum.org/collection/Detail/word/472>
- Alutiiq Word of the Week: Fall, Autumn—*Uksuaq*
<https://alutiiqmuseum.org/collection/Detail/word/225>
- Alutiiq Word of the Week: Year—*Uksuq, Kiak* (during Russian times)
<https://alutiiqmuseum.org/collection/Detail/word/553>

Name: _____

Date: _____

Subsistence Worksheet

Subsistence Category: _____

Past:

Subsistence Item:	Season of Harvest:	Tools & Techniques:	Preservation & Storage:

Present:

Subsistence Item:	Season of Harvest:	Tools & Techniques:	Preservation & Storage:

Box 5.2. Animal Introductions

“When you introduce a new species into a Native lifestyle, it’s not like drinking a new soda pop or eating a new ice cream. It takes a long time.”

An Afognak village resident on the introduction of elk. From Tennesen 2021:89.

Old Harbor Elders remember when *tuntut*—deer started to appear on the beaches surrounding Sitkalidak Strait (Figure 5.19). At first, people thought the animals were strange. Ungulates are not indigenous to Kodiak, but Alutiiq ancestors knew about caribou, moose, and goats. They traveled to the Alaska mainland for thousands of years to hunt these animals, and they traded for products like horn, hide, and antler. However, the little Sitka blacktail deer, released on Kodiak in the 1920s, looked out of place to Native hunters who were used to pursuing ducks, seals, and bears. But the Alutiiq are adaptable and as these new residents thrived, deer meat made its way to dinner tables. Today, deer is a favorite subsistence food, and most Alutiiq people don’t remember a time before the animals were part of their annual harvesting traditions. For many families, deer meat has become a central food source, taking the place of the bear and sea lion meat that were once widely eaten.

Deer are among the most successful of Kodiak’s animal introductions, but at least twenty other species were released in the archipelago over the last century (Table 5.2). Why? Biologists brought some animals to provide local economic opportunities. The U.S. government introduced a herd of reindeer to southern Kodiak as a food and income source for the people of Akhiok. To support trapping after the decline of the fur trade, beavers and other fur bearers were added to the Kodiak landscape. Martens and red squirrels were introduced together—martens for trapping and red squirrels to feed them. Other animals were intended for hunting. Deer and elk were released for subsistence harvesting. Mountain goats were added to Kodiak to develop trophy hunting opportunities for sportsmen.

For the most part, Alutiiq people welcomed the introductions and where appropriate adopted them for food and material. Today most of the new animals are seen as a part of the landscape and advantageous natural resources. Only a few animals are considered pests. People find red squirrels (Figure 5.20) annoying because they damage houses, and beavers create dams in salmon streams, making a mess of waterways and blocking fish runs.



Figure 5.19. Sitka blacktail deer on Sitkinak Island, 2021. AM997. Photo by Patrick Saltonstall.



Figure 5.20. A red squirrel in a spruce tree, Kodiak Island, 2022. AM725. Photo by Patrick Saltonstall.

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Excerpt from the Alutiiq Museum’s Publication *Imaken Ima’ut*—From the Past to the Future

Table 5.2. Animals introduced to Kodiak in the twentieth century

Year Introduced	Animal	Outcome
1890s, 1924, 1934	Sitka Blacktail Deer <i>Odocoileus hemionus sitkensis</i>	Successful
1924	Reindeer <i>Rangifer tarandus</i>	Successful
1925, 1929	Beaver <i>Castor canadensis</i>	Successful
1925	Muskrat <i>Ondatra zibethicus</i>	Successful
1928–29	Roosevelt Elk <i>Cervus elaphus roosevelti</i>	Successful
1934	Snowshoe Hare <i>Lepus americanus</i>	Successful
1930s, 1970s	Raccoon <i>Procyon lotor</i>	Failed
1952	Mink <i>Neovison vison</i>	Failed
1952	Red Squirrel <i>Tamiasciurus hudsonicus</i>	Successful
1952	Marten <i>Martes americana</i>	Successful
1952–1953	Mountain Goat <i>Oreamnos americanus</i>	Successful
1957	Spruce Grouse <i>Falcipennis canadensis</i>	Failed
1962–1964	Blue Grouse <i>Dendragapus obscurus</i>	Failed
1964–1967	Dall Sheep <i>Ovis dalli</i>	Failed
1966–1967	Moose <i>Alces alces</i>	Failed
1973, 1975, 1986	Vancouver Canada Goose <i>Branta canadensis fulva</i>	Successful
1984	European Hog <i>Sus scrofa</i>	Failed
1980s; 2010s	Plains Bison <i>Bison bison</i>	Successful

Adapted from Tennessen 2012

Uspelluku—Measure

Kodiak Alutiiq Qayaq—Kayaks and Maritime Traditions

Grade: Middle School (Grades 6-8)

Time: 4 Days

Lesson Description: Students will explore traditional Alutiiq ways of measuring and use the measurements to build a paper *qayaq*—kayak. They will use measuring tools to measure parts of their body, record them on a form, and calculate *qayaq* measurements and ratios for a full-sized boat. Students will transfer these measurements to a sheet of bulletin board paper to create a full-sized paper *qayaq* cutout.

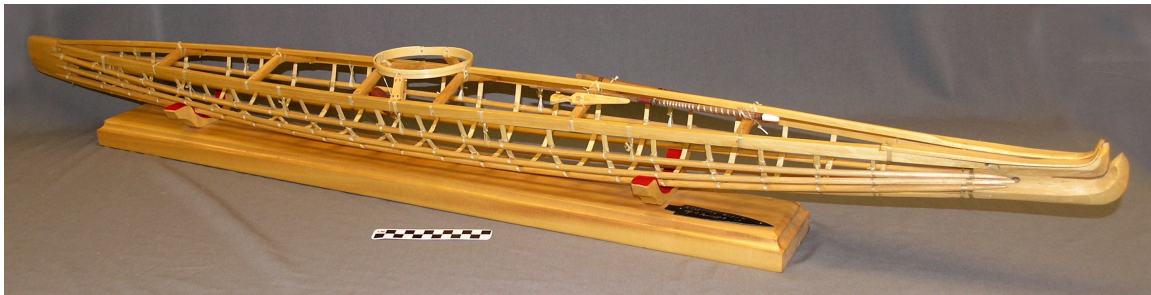


Photo: Model *qayaq* frame by Alfred Naumoff, AM506

Kit Includes:

- My Qayaq—Body Measurement Table
- Replica *qayaq* paddle

Materials Needed:

- Standard (Imperial) measuring tapes or yardsticks & rulers
- Pen or pencil
- Masking or colored tape
- Bulletin board paper (roll)
- Scissors

Vocabulary	Alutiiq Vocabulary	Art Elements	Art Principles	Content Connections
Conversion	<i>Qayaq</i> —Kayak	<input checked="" type="checkbox"/> Line	<input checked="" type="checkbox"/> Pattern	AK Cultural Standards
Ratio	<i>Qayat</i> —Kayaks	<input checked="" type="checkbox"/> Shape	<input checked="" type="checkbox"/> Rhythm/ Movement	AK Science Standards
Standard measurement units	<i>Uspelluku</i> —Measure <i>Qayanguaq</i> —Single- hatched <i>Qayaq</i>	<input checked="" type="checkbox"/> Color <input checked="" type="checkbox"/> Value <input checked="" type="checkbox"/> Texture <input checked="" type="checkbox"/> Space/ Perspective	<input checked="" type="checkbox"/> Proportion/ Scale <input checked="" type="checkbox"/> Balance <input checked="" type="checkbox"/> Unity <input checked="" type="checkbox"/> Emphasis	AK Mathematical Standards

Objectives and Assessment Criteria:

Students will learn...

- About the traditional Alutiiq *qayaq*—kayak and the measurement units used to create this boat.
 - How to measure appropriate body parts in standard (Imperial) units of measurement using half-inches, inches, and feet.
 - How to apply the concept of units of body measurement to discover the student's own single-hatched *qayaq* size.
 - How to transfer measurements to bulletin board paper to make a paper *qayaq* outline.
-

Cultural Standards:

- E4: Culturally knowledgeable students demonstrate an awareness and appreciation of the relationships and processes of interaction of all elements in the world around them. Students who meet this cultural standard are able to determine how ideas and concepts from one knowledge system relate to those derived from other knowledge systems.
- B2: Culturally knowledgeable students are able to build on the knowledge and skills of the local cultural community as a foundation from which to achieve personal and academic success throughout life. Students who meet this cultural standard are able to make effective use of the knowledge, skills and ways of knowing from their own cultural traditions to learn about the larger world in which they live.

Science Standards:

- MS-PS2-1: Crosscutting Concepts: Influence of Science, Engineering, and Technology on Society and the Natural World: The uses of technologies and any limitations on their uses are driven by individual or societal needs, desires, and values; by the findings of scientific research; and by differences in such factors as climate, natural resources, and economic conditions.
- MS-ETS1-4: Science and Engineering Practices: Developing and Using Models. Develop a model to generate data to test ideas about designed system, including those representing inputs and outputs.
- MS-ESS3-4: Crosscutting Concepts: Connections to Engineering, Technology and Applications of Science: Influence of Science, Engineering, and Technology on Society and the Natural World. All human activity draws on natural resources and has both short and long-term consequences, positive as well as negative, for the health of people and the natural environment.

Mathematical Standards:

- 6.RP. Understand ratio concepts and use ratio reasoning to solve problems.
 - 7.RP Analyze proportional relationships and use them to solve real-world and mathematical problems.
-

Cultural Relevance:

For thousands of years, seaworthy boats were one of the most important tools in the Alutiiq toolkit. Carefully crafted and well-maintained boats—including *qayat*—kayaks and *angyat*—open skin boats, were a lifeline. They allowed Alutiiq people to harvest fish and sea mammals, travel and trade great distances, and carry families and supplies in the cold, windy waters of the Gulf of Alaska. *Qayat* could have one, two, or three hatches. A *qayanguaq*—Single-hatched *qayaq* was the most common. People used these boats daily for fishing, traveling, and hunting fast animals like porpoises and whales.

It took time to make a *qayaq*. The driftwood for the frame had to be gathered from beaches, dried to prevent shrinking, and then carved by hand into the many frame parts (bow and stern, stringers and ribs, keel and cockpit) needed for assembly. For example, it took Alutiiq carver Alfred Naumoff nearly two years to craft a sixteen-foot *qayaq* frame. He started learning *qayaq* building as a boy, watching and working beside experienced family carvers.

Each *qayaq* was built to fit its user's body. Alutiiq people carved *qayaq* frame parts from driftwood, using their arms, hands, fists, and fingers to determine the size of each part and where it fit on the frame. Then they secured each part to the frame with sinew and baleen lashings and covered it with sewn sea mammal skins. Since all parts of the *qayaq* were custom-made, each Alutiiq boat was a slightly different size.

All measuring systems rely on uniformity, a standard way to record things like length, weight, and volume. Today we use rulers to measure inches and feet, or a scale to record kilos. Before the adoption of contemporary measuring systems, like the metric system, people relied on relative measurements. Comparisons are the foundation for non-numeric ways of gauging size. For example, you might compare a fish to the length of a man's arm. Other relative measurements are based on proportions, like knowing the length of Spiridon Bay is twice as long as the length of Larsen Bay.

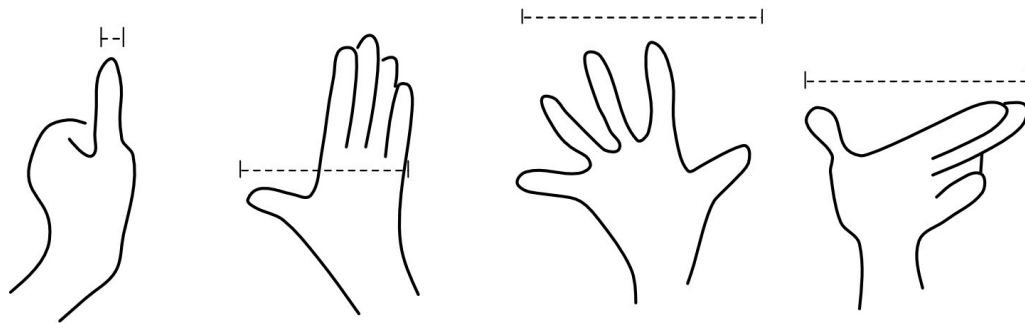
In classical Alutiiq society, measurements were important for many daily tasks—from making clothing and tools to building houses and boats. Alutiiq Elder Bobby Stamp shared techniques for *qayaq* building with relative measurements. His system is based on finger, hand, and arm lengths, which can be combined in many ways. For example, the length of a *qayaq* stern piece is the distance of the lower arm, from the elbow to the tip of the fingers, while the height of this part is the width of an outstretched hand. In contrast, gunnel length is a combination of measurements—three out-stretched arms from fingertip to fingertip, plus one lower arm, plus one outstretched hand. This elegant way of measuring boat parts ensured that every *qayaq* fit the unique proportions of its maker. A taller person's boat was proportionally larger than that of a shorter paddler.

Create:

Day 1:

- Explain that there are many ways to measure the world – standard (Imperial) and metric are common today, but other measurement units have been used for thousands of years.
 - Have students brainstorm different things in nature that could be used as a unit of measurement. For example, a body part (a person's foot, palm, finger digits, or height), an object (a paperclip, a shoe, or a pencil), or a motion (one step).
 - Ask the students, can units of measurement vary? (Yes, greatly—e.g., a person's arm length, or stride). Are varying units useful for all measuring needs?

Examples of body measurements used by Alutiiq carvers

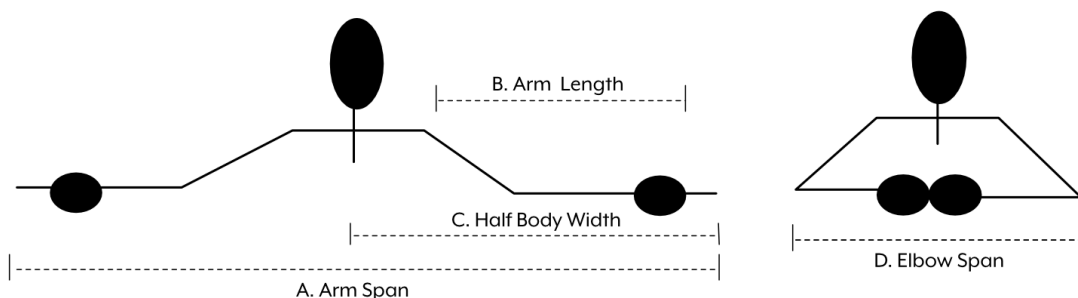


- Inform students they will be learning about how Alutiiq *qayat* were custom-made to fit each Alutiiq hunter. This was done by using the hunter's personal body measurements focusing on hand, finger, and arm length. Share that each student will be determining the size of their own *qayaq* based on their own measurements.
 - The instructor demonstrates the span of their outstretched arms, from fingertip to fingertip. Ask students to stretch out their arms and notice their own outstretched arm length. Without measuring, ask students who they estimate will have the widest arm span.
 - Similarly ask students to notice their own hand length (from wrist edge to fingertip), one arm length (from armpit to fingertip), and across-body span (bent arm length from elbow to elbow with closed fists in the center).
- Ask students if they are familiar with modern-day *qayaq*? Have they traveled in one before? If so, what were the major parts of the boat? What is it like to be on the water in a *qayaq*?
- After a classroom discussion, have the students familiarize themselves with aspects of Alutiiq culture by reading the Alutiiq Museum handouts.
 - *Qayaq*—Kayak: <https://alutiiqmuseum.org/wp-content/uploads/2024/01/Qayaq2022.pdf>
 - *Uspelluku*—Measure: <https://alutiiqmuseum.org/collection/Detail/word/665>

Day 2:

- Share the video short *Alutiiq Kayak Maker Alfred Naumoff on the Kayak* (2:10) - <https://www.youtube.com/watch?v=EGCOnJwVhq4>.
(Video summary - Alutiiq *qayaq* maker Alfred Naumoff spoke about the construction of an Alutiiq/Sugpiaq *qayaq*, the focus of a partnership between the Alutiiq Museum and community and Harvard University's Peabody Museum (recorded during a 2012 visit). In 2023, the college transferred ownership of the *qayaq* to the Alutiiq Museum, a tribal repository and cultural center in Kodiak, Alaska. Made in the mid-19th century, the 14.5-foot, skin-covered boat is a rare example of a complete ancestral *qayaq*. This vessel has been at the center of a long-term collaboration between the institutions and is currently on display at the Alutiiq Museum.)
 - Ask students to pay attention to what a *qayaq* frame looks like at 0:48 of the video and notice how many individual wooden parts make up a single-hatched *qayaq* frame.
 - Also ask students to notice how Mr. Naumoff shows the arm length measurement at 1:29 of the video.
- Share the video *Uncovering Kayaking Traditions* (30:26), from the Alutiiq Museum's Fall Lecture series in 2016 - <https://vimeo.com/185088462>.
(Video Summary - Presentation by Susan Malutin, part of the Alutiiq Museum's Fall Lecture Series 2016. An historic Alutiiq *qayaq* discovered in the collections of Harvard's Peabody Museum provided Alutiiq culture bearers an opportunity to learn more about the construction of ancestral boats. Learn how skin sewer Susan Malutin explored the manufacture of the boat's skin cover)
 - How was the *qayaq* acquired? By whom?
 - What stitch was used to sew the *qayaq*?
 - What type of hair is sewn into the *qayaq*?
 - What was the seal gut/intestines used to make?
 - Why did men know how to sew?
- Introduce vocabulary terms:
 - Conversion – changing one thing into another. Converting units from one measurement system (such as Imperial to metric) to another is done using the ratio between two measurement units.
 - Ratio – the relationship between two units, expressed in one of three ways: a fraction (1/2), “1 to 2” or “1:2”.
 - Measurement units – May be a standard form of measurement or a customized unit of measure, e.g. traditional Alutiiq body measures.
 - Standard measurement units – units of measure that are well known, standardized, and agreed upon, e.g., inches, feet, centimeters, meters.
- Review standard (Imperial) units of measurement and how these are recorded – feet, inches, and half inches will be used in this exercise.
 - Review with students how to find these measurements on soft measuring tapes or rulers/yardsticks.

- Inform students that they will work with a partner to measure and record their specific body measurements as guided by the **My Qayaq — Body Measurement Table**.
 - These include five specific measurements identified by on the form:
 - A. Arm Span—Open arms from fingertip to fingertip.
 - B. Arm Length—Armpit to closed fist.
 - C. Half Body Width—Center of chest to tip of fingers.
 - D. Elbow Span—Double bent arms from elbow to elbow.



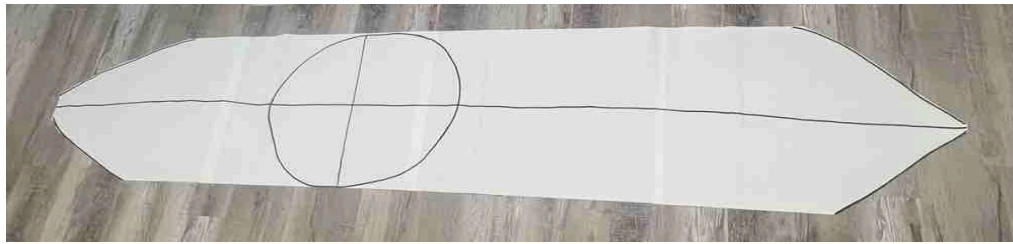
Day 3:

- Students will demonstrate the ability to accurately add and apply measurements. They will also learn about ratios.
- Using whole and half measurements gathered in the previous session students will add the top four body measurements to find their personal total *qayaq* length.
- Concept Explanation (whole group processes data, summarizes results). Poll the students on their *qayaq* measurements. Compile the data on the class whiteboard.
 - Which student has the longest *qayaq*? The shortest *qayaq*?
 - What is the class average *qayaq* length?
 - Can they find a classmate with the same *qayaq* length or width? Are these two students about the same height?
- Students will then compute **two** ratios on the My Qayaq Measurement Form (see example).
 - Divide the total *qayaq* length by height of the student.
 - Then divide total *qayaq* length by *qayaq* width.
- Students will learn that a **ratio** is a relationship between two quantities. Helpful video Khan Academy: [Khan Academy Intro to Ratios](#) (3:58)
 - In this case, student height and the *qayaq* length are the two units.
 - Ask students if they think the shortest student and the tallest student will have the same ratios? (Answer: yes, they will)
- Select three students to share their measurements and ratios on the class whiteboard.
 - Students will see that they have the same ratios despite their size differences.
 - Ask students what they think having the same ratio means?

- Share that for all students, the ratio between the student height and the *qayaq* length should be about the same, and the ratio between the *qayaq* length and width should be similar.
- This is because while students' bodies differ, and individual students will have different measures, the ratio of these body measurements in creating their perfectly sized *qayaq* is the same. Alutiiq people knew this and in order to have a balanced *qayaq*, they created boats that were **proportional** to each paddler's body.

Day 4:

- Have the students select a student's *qayaq* measurement to share in full-size on a roll of bulletin board paper, using masking or colored tape (see design outline in image below). Display on a wall in the classroom or school.



Close and Assessment:

- Students understand how Alutiiq craftspeople used units of measurement to create perfectly proportioned *qayat*.
- Students completed their My Qayaq Measurement Form and applied their measurements to create a life-sized *qayaq* cutout from bulletin board paper.
- Students gained a basic understanding of ratios.

Modification:

- Convert standard (Imperial) units to metric units of measurement using whole numbers and decimal solutions.
- Identify various metric units of measurement, such as millimeters, centimeters, and meters.
- Apply the concept of metric units of measurement conversions.
- Reduce the measurements to 1/10th scale and have each student (or pair of students) create proportionate small-scale clay or playdough models based on their measurements.

Additional Resources:

- Alutiiq Arts: Carving: <https://alutiiqmuseum.org/alutiiq-people/art/arts-blog/carving/>
- Keligcipet — Carving Traditions: <https://alutiiqmuseum.org/wp-content/uploads/2023/10/CarvingTraditions2022.pdf>
- Percipet — Bending Traditions: <https://alutiiqmuseum.org/wp-content/uploads/2023/12/BendingTraditions2022-copy.pdf>
- Alutiiq Arts: Graphic Arts: <https://alutiiqmuseum.org/alutiiq-people/art/arts-blog/graphic-arts/>
- Namiutat — Graphic Arts: <https://alutiiqmuseum.org/wp-content/uploads/2023/10/GraphicArts2022.pdf>
- Amutat Database: Kayak: <https://alutiiqmuseum.org/collection/Search/amutatObjects?search=kayak&view=images&l=all>
- Alutiiq Word of the Week Archive: Kayak — Qayaq <https://alutiiqmuseum.org/collection/Detail/word/303>
- Alutiiq Word of the Week Archive: Prow, Bow — Qayam cuunga <https://alutiiqmuseum.org/collection/Detail/word/563>
- Alutiiq Word of the Week Archive: Measure — Uspelluku <https://alutiiqmuseum.org/collection/Detail/word/665>
- Alutiiq Word of the Week Archive: Two-hatched Kayak — Qayarpak <https://alutiiqmuseum.org/collection/Detail/word/601>

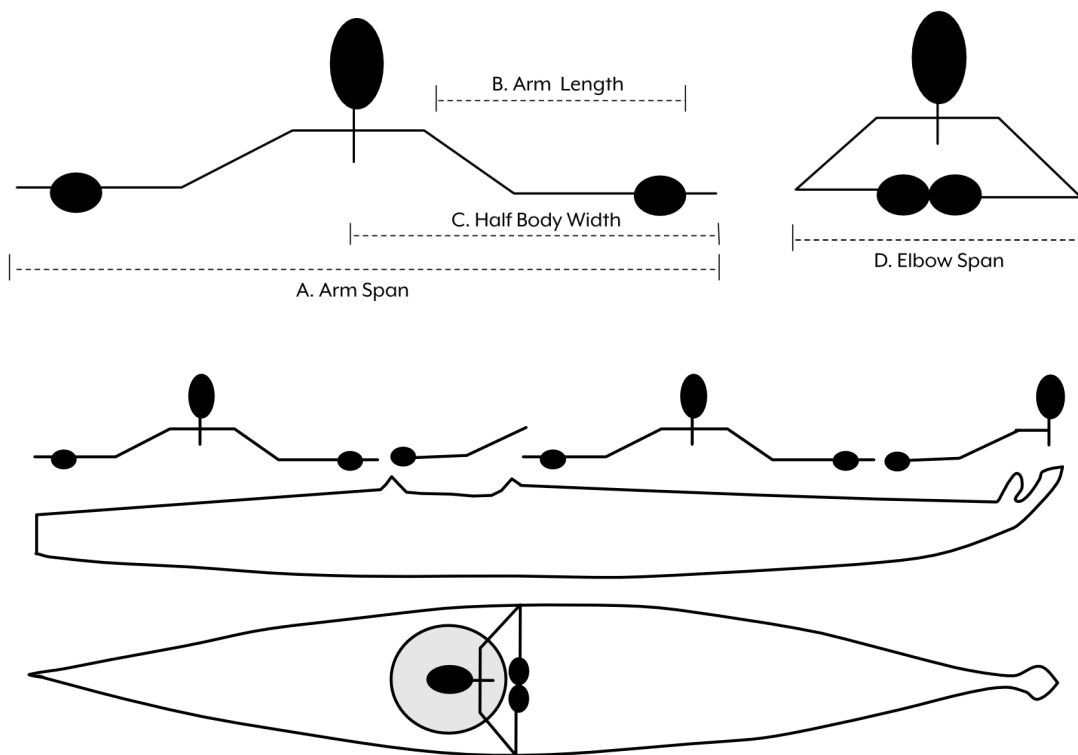
Parts of this lesson were adapted from: Lipka, J., Jones, C., Gilsdorf, N., Remick, K., and A. Richard. 2010. *Kayak Design: Scientific Method and Statistical Analysis*. Part of the Series Math in a Cultural Context: Lessons Learned from Yup'ik Elders. Grade 6. University of Alaska Fairbanks. <https://www.uaf.edu/mcc/files/modules/KayakDesign.pdf>

Quyanaa—Thank you.

This lesson plan was produced with generous support from a Maritime Heritage grant from the Alaska Office of History and Archaeology and the National Park Service.



My Qayaq—Body Measurement Table



Student's Name:

Body Measurements	Example	Student's Measurement:
A. Arm Span (x2)—fingertip to fingertip arms stretched	2 x 66 inches = 132 inches	2 x =
B. One Arm—hand in a fist to armpit	24.5 inches	
C. Half Body Width—center of chest to fingertip	33 inches	
Total Kayak Length (L) (A+B+C=L)	189.5 inches	
Height of Paddler (H)	68.5 inches	
Ratio (L/H)	189.5/68.5 = 2.7	

Body Measurements	Example	Student's Measurement:
Total Kayak Length (L)—from table above	189.5 inches	
D. Elbow Span—Bent arms from elbow to elbow with fists closed = <i>qayaq</i> width (W)	29 inches	
Ratio (L/W)	189.5/29 = 6.5	

Note: round measurements to nearest half inch.



Qayaq – KAYAK

From the Arctic Ocean to Prince William Sound, Alaska's Native people crafted swift, seaworthy boats from wood and animal skins. Each culture had a distinct style of *qayaq* with unique qualities. Alutiiq/Sugpiaq *qayat* were long and slender, built for flexibility in the rough, windy waters of the Pacific Ocean.

Carefully crafted, well-maintained boats allowed men to harvest fish and sea mammals from the ocean, to travel and trade over great distances, and to carry supplies home. In coastal Alaska, every man was a *qayaq* builder and paddler. No man could be a successful provider without his own skin boat. *Qayat* were a lifeline.

ALUTIIQ QAYAQ TYPES

- *Qayangnaq* (little kayak)—Single-hatched: For fishing, traveling, and hunting fast animals like porpoise.
- *Qayarpak* (big kayak) - Double-hatched: For team hunting, particularly sea otters. The man in the front hatch hurled weapons while the man in the rear steadied and steered the boat.
- *Paitalek* (has many hatches) - Triple-hatched: Made in the Russian era. A large hatch in the center held a Russian trader, smaller hatches in the bow and stern provided seats for Native paddlers. These larger boats carried quantities of gear and supplies.

BUILT FOR FLEXIBILITY

Made from natural materials pegged, lashed, and sewn together, Alutiiq *qayat* were light, bendable, and stable. Flexibility kept them from breaking in rough seas or when landing.

It took months to collect the wood for a *qayaq* frame, and different parts of the skeleton required different types of wood. Craftsmen preferred dense, water-resistant spruce for bow, stern, and deck pieces. They chose elastic woods with straight grains, like hemlock and alder, for stringers, ribs, and gunwales.

Alutiiq men used strips of hide and baleen to tie their *qayat* together. They never used nails. Nails



An Alutiiq kayaker. Photo courtesy of Eric Waltenbaugh.

can make the frame stiff or rub a dangerous hole in the skin cover.

One of the most distinctive parts of the Alutiiq *qayaq* is its split, upturned prow. The lower curved part is slightly hollowed on the sides, helping the boat cut through the water. The tall upper part provides buoyancy, helping the boat float through waves.

A SKIN OF SKINS

A kayak's cover provided protection for the hunter inside. This thin layer of animal skin kept water out and created a smooth surface that slipped through the water. Women created boat covers, a task that required great precision.

Alutiiq people used both seal and sea lion skins to cover their boats. A hunter preparing to cover a boat would collect skins and age each one to remove the hair. When it was time to create a boat cover, women soaked the skins in water to moisten them for cutting and sewing. They laid skins over the *qayaq* frame, positioning them to form a cover. Each skin was marked and then cut to shape. With the cut pieces, sewing could begin. It took at least a week to stitch a *qayaq* cover. Knowledgeable women supervised those with less experience, checking their work carefully, as poor sewing could cost a hunter his life. When the cover was complete, men pulled it over the frame, sometimes using seaweed to help the cover slide into place.

Qayat Igait—Kayak Designs & Making Pigment

Kodiak Alutiiq Qayat—Kayaks and Maritime Traditions

Grade: Upper Elementary School (Grades 4 & 5)

Time: 5 Days

Lesson Description: Students learn about Alutiiq *qayat*—kayaks, explore *qayaq*—kayak decoration, and create their own pigments to paint personalized decorations.



Image: Kayak Designs. Drawing by Chloe Ivanoff, *Unigkuat* Kodiak Alutiiq Legends.

Alutiiq Vocabulary*	Art Elements	Art Principles	Content Connections
<i>Qayaq</i> —Kayak <i>Qayat</i> —Kayaks <i>Igait</i> —Design <i>Salaq</i> —Clam shell <i>Aigaq</i> —Human hand <i>Agyaq</i> —Star <i>Kiani</i> —Charcoal <i>Tan'eryluni</i> (N)/ <i>Tamlarluni</i> (S)—Black <i>Kraasirluni</i> —Paint, Color <i>Kawisqaq</i> —Red <i>Qatesqaq</i> (N), <i>Qat'sqaq</i> (S)—White <i>Cungaq</i> , <i>Cungasqaq</i> —Blue/Green <i>Qayanguaq</i> —Single-hatched <i>Qayaq</i>	<input checked="" type="checkbox"/> Line <input checked="" type="checkbox"/> Shape <input checked="" type="checkbox"/> Color <input checked="" type="checkbox"/> Value <input checked="" type="checkbox"/> Texture <input checked="" type="checkbox"/> Space/ Perspective	<input checked="" type="checkbox"/> Pattern <input checked="" type="checkbox"/> Rhythm/ Movement <input checked="" type="checkbox"/> Proportion/ Scale <input checked="" type="checkbox"/> Balance <input checked="" type="checkbox"/> Unity <input checked="" type="checkbox"/> Emphasis	AK Science Standards AK Art Standards AK Cultural Standards

*(N)=northern way of speaking Kodiak Alutiiq, (S)=southern way of speaking Kodiak Alutiiq

Kit Includes:

- *Unigkuat* Kodiak Alutiiq Legends book – *Qayat Igait*—Kayak Designs story
- *Qayat Igait*—Kayak Designs Template for Painting

Materials Needed:

- Charcoal from a fireplace or fire pit, or charcoal briquettes from the store
- Grinding rocks or mortar & pestle
- Paper plates and small paper cups
- Paintbrushes & water
- Measuring spoons ($\frac{1}{4}$, $\frac{1}{2}$, & 1 teaspoons)
- Eye droppers or other tools to dispense small amounts of water
- Pencils & watercolor paper
- Various binding agents – Wesson oil, coconut oil, honey

Extension activity materials:

- Artificial gut skin (sausage casings)
-

Objectives and Assessment Criteria:

Students will learn...

- About Alutiiq *qayat* and their decoration,
 - How to use natural materials to make black pigment,
 - How adding varying amounts of liquids to pigments can make paint of different consistencies
-

Alaska State Standards:**Science Standards**

- 5-PS1-2 Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved. [Clarification Statement: Examples of reactions or changes could include phase changes, dissolving, and mixing that form new substances.] [Assessment Boundary: Assessment does not include distinguishing mass and weight.]
- 5-PS1-3 Make observations and measurements to identify materials based on their properties. [Clarification Statement: Examples of materials to be identified could include baking soda and other powders, metals, minerals, and liquids. Examples of properties could include color, hardness, reflectivity, electrical conductivity, thermal conductivity, response to magnetic forces, and solubility; density is not intended as an identifiable property.] [Assessment Boundary: Assessment does not include density or distinguishing mass and weight.]
- 5-PS1-4 Conduct an investigation to determine whether the mixing of two or more substances results in new substances. [Clarifying Statement: Share finding from the investigation.]

Art Standards

- Anchor Standard #1: Generate and conceptualize artistic ideas and work.
- Anchor Standard #2: Organize and develop artistic ideas and work.
- Anchor Standard #7: Recognize and analyze artistic work, including those from diverse cultural traditions.
- Anchor Standard #11: Relate artistic ideas and works with societal, cultural, and historical context to deepen understanding.

Cultural Standards

- A. Culturally knowledgeable students are well grounded in the cultural heritage and traditions of their community.
 - D. Culturally knowledgeable students are able to engage effectively in learning activities that are based on traditional ways of knowing and learning.
 - E. Culturally knowledgeable students demonstrate an awareness and appreciation of the relationships and processes of interaction of all elements in the world around them.
-

Cultural Relevance:

Qayaq Use

For thousands of years the *qayaq* was one of the most important tools in Alutiiq communities. Carefully crafted and well-maintained boats were a lifeline and allowed Alutiiq ancestors to harvest fish and sea mammals, travel and trade great distances, and carry families and supplies.

Qayaq Shape

The Alutiiq managed the dangerous waters of the Gulf of Alaska with the specialized design of their *qayat*. An upturned bow cuts through the waves, and a flexible wooden frame helped the boat slip through rough waters. A well-oiled sea mammal hide covered the frame like a glove and was held on with waterproof stitching. *Qayat* could have one, two, or three hatches. A *qayanguaq*—single-hatched *qayaq* was the most common. People used these boats daily for traveling, fishing, and hunting fast animals like porpoises and whales.

Special Designs

Alutiiq people painted designs on many traditional objects. Sometimes they painted themselves, decorating their skin with tattoos and body paint. Specialized *qayaq* tools like paddles and bailers, and hunting and fishing gear used while in a *qayaq* were often decorated with beautifully painted designs. These designs could be spiritually powerful. An Alutiiq legend from 1872, *Qayat Igait*—Kayak Designs, shares how people began to paint their *qayaq* covers with special images.

“...he built a qayaq—kayak with one hatch and painted one side of the qayaq red and the other side black. On the cover of the qayaq, he painted the following images. On the front left, he painted a large clam salaq—shell, on the front right, a human aigaq—hand, on the back left, an agyaq—star, and on the other side, a qayaq. He repeated the same figures on his float and the palm of his hands.”

(Full legend available in Unigkuat - Kodiak Alutiiq Legends and attached to this lesson plan)

Why did paddlers add designs to their qayat? The images were symbols of helping spirits, powerful ancestors, or important accomplishments in the hunter's life. The symbols provided support for hunters as they pursued animals in windy waters. Alutiiq people often used circles on hunting gear. These images represented both an eye and a passageway. Vision is important for hunters and the circle image suggests the ability to see and find animals. The circle is also a passageway into other worlds, like the sea world where animal spirits live.

Traditional Colors

Black, white, red, and blue/green are the central colors recognized in the Alutiiq language. They are also the most common colors in Alutiiq artwork. Alutiiq people made black paint from a variety of raw materials.

Black Paint

Before the availability of commercially manufactured pigments, the Alutiiq people created paints from plants and minerals. Sometimes they ground charcoal and mixed it with oil or blood to make black paint. Another way to make black pigment was by collecting a specific stone from cliff faces, or it could be produced from copper ore. Artists ground these materials into fine powders using stones, and then stored them in small skin bags. To make paint, they mixed the powder with a binder of water, blood, oil, or even fish eggs.

Artists applied paint to objects with their fingers, a small stick, or a paintbrush made with animal hair. Archaeologists studying late prehistoric village sites have found small, decorated handles with a tiny knob on one end. Bristles may have been tied to these delicate knobs for fine painting.



Create:

Day 1

- Ask students if they have ever seen or been in a *qayaq* before. What are the features of the boat (e.g., low to the water, long and narrow, designed to be paddled). Follow up by asking students if they have seen or been in an Alutiiq-style *qayaq*. What do they think might be the features of an Alutiiq *qayaq*?
- Share the video:
 - *Alutiiq Consultants on Kayak Collaboration* (Peabody Museum of Archaeology & Ethnology) [YouTube: 4:30]
<https://www.youtube.com/watch?v=ETPHuyKICnY>
- Share the video:
 - *Uncovering Kayaking Traditions* (30:26), from the Alutiiq Museum's Fall Lecture series in 2016 - <https://vimeo.com/185088462>
 - How was the *qayaq* acquired? By whom?
 - What stitch was used to sew the *qayaq*?
 - What type of hair is sewn into the *qayaq*?
 - What was the seal gut/intestines used to make?
 - Why did men know how to sew?
- Ask students to share similarities and differences between *qayat* made today and traditional Alutiiq-style *qayat*. This can be done in groups with a comparative graph or as a whole class on the board. Here are some examples:
 - Many modern *qayat* are made by machines with materials like plastic, fiberglass, and carbon fiber. Alutiiq *qayat* are handmade out of wood, animal hides, and sinew.
 - Many modern *qayat* are made in standard sizes. Each Alutiiq *qayaq* was made to fit the proportions of its owner based on their body measurements.
 - The Alutiiq *qayaq* has a split bow for cutting through the waves. It is expertly designed for the windy waters around Kodiak.
 - Alutiiq people decorated their *qayat* with special symbols. Each one was unique.

Day 2

- Share with students that the Alutiiq people adorned their *qayat* to provide protection, luck, connection to animals, ancestors, spirits, and personalization. They sewed items into the seams – like beads and hair. They painted designs on the cover. They stored amulets (personal charms) inside.
- Read the legend *Qayat Igaa'it*—Kayak Designs aloud to the class (attached to this lesson plan). Ask the students to describe the symbols the Alutiiq hunter painted on his *qayaq* and what they represented.
- Share examples of Alutiiq designs from the *Painted Elements from Alutiiq and Unangax̂ Hats* handout—attached to this lesson plan.
- Have the students imagine their own *qayaq* designs. What symbols would they use to represent themselves?

- Have students work individually with a piece of white paper and a pencil to draw 4 symbols they would paint on their own *qayaq*—these symbols could represent themselves, their family, an important event, or the activities their *qayaq* would be used for.
- Have students label each symbol with a sentence about its meaning. What does the symbol represent and why is it important?
- Have students present their symbols to their table group or the class.

Day 3

- Explain that Alutiiq artists had to make paint. They couldn't buy paint from a store like we do today.
- Traditionally the Alutiiq people would make black paint from materials available from the land. Have students brainstorm different things in nature that could be used to make the color black.
- Share the different resources with the students along with the Cultural Relevance sections on Traditional Colors and Black Paint.
 - *Alutiit Kraas'kait* Alutiiq Colors handout:
<https://alutiiqmuseum.org/wpcontent/uploads/2024/01/Colors2022.pdf>
 - Alutiiq Word of the Week:
 - Charcoal—*Kianiq*:
<https://alutiiqmuseum.org/collection/Detail/word/148>
 - Black—*Tan'eryluni (N)*, *Tamlarluni (S)*:
<https://alutiiqmuseum.org/collection/Detail/word/125>
 - Paint, Color—*Kraasirluni*
<https://alutiiqmuseum.org/collection/Detail/word/383>
- Inform students they will be making black paints. They will experiment with adding different amounts of water to charcoal powder to make a watercolor paint. Then they will experiment by adding fatty binding agents to their charcoal powder. They will use these paints to make a charcoal powder paint sampler to paint Alutiiq designs on a paper *qayaq*.
- Have students carefully grind lumps of charcoal in a mortar and pestle or with a rock on a paper plate. Collect the ground charcoal on a paper plate and store it in a zip-lock bag labeled with each student's name.
 - Remind students to be gentle and careful when grinding. This can be a messy process. The more they grind up the charcoal, the less gritty their paint will be.

Day 4

- Return the ground charcoal to each student.
- Hand out small paper cups and paintbrushes. Make watercolor paints with ground charcoal and water. Experiment by adding just a little water (¼ teaspoon) vs. a lot of water (1 teaspoon) to (1 teaspoon) of ground charcoal.
- Students will start making their charcoal powder paint sampler. Direct them to paint a line for each watercolor paint experiment. Further experiment with applying the paint using a brush vs. using your fingers.

- Have the students take notes in pencil onto the sampler explaining each kind of paint.
- Have students create another set of black pigments by mixing a small amount of ground charcoal with a fat (ex: Wesson oil or coconut oil) or try mixing the same amount with honey. If the oil or honey are too stiff, warm them up first.
- Have students paint these pigments onto their Charcoal Powder Paint Sampler, adding labels in pencil.

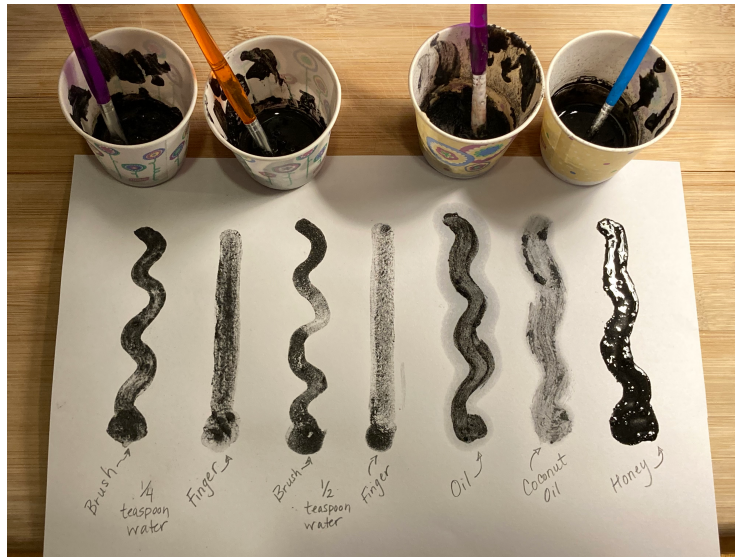


Photo: Charcoal powder paint sampler with water, oil, coconut oil, and honey applied with brushes and by fingers.

- Have students select their favorite pigment (watercolor or fat-based) to paint their personal symbols on a *qayaq* drawing (template attached).

Close and Assessment:

- Students learned about Alutiiq *qayat* and the ways hunters painted symbols.
- Students designed their own symbols inspired by Alutiiq graphic arts.
- Students created a charcoal powder paint sampler.
- Students painted their personal symbols on the *qayaq* outline.
- Students can identify ways of making black paint from natural materials.

Modifications:

- Students can bring in a variety of natural materials to try and create other black pigments. Try grinding local minerals, rocks, and soils. Use the same method

outlined above to create different shades. Then, create a sampler on watercolor paper noting the variables in pencil.

- Students can experiment with adding charcoal powder to other binding agents like fish eggs or oil.
- Students could try painting on artificial gut skin. You can use sausage casing sheets available from online retailers.
- Students can experiment with which paint sticks best to the gut skin? Water-based pigment or fat-based? Record how long it takes the pigments to dry on the gut. Once dry, are these paints water soluble?



Photo: Paint on artificial gut/sausage casing sheet, water-based pigment (left), oil, coconut oil, and honey-based pigments (top to bottom).

Additional Resources:

- Video: How to forage for Natural Pigments! [Jyotsna Pippal: YouTube] (4:36)
<https://youtu.be/-TTEjbK-YhQ?si=g80WwpRq2nLna3mG>
- *Igaruacirpet*—Our Way of Making Designs book developed by the Alutiiq Museum—Chapter 4, Painting
- Alutiiq Arts: Carving: <https://alutiiqmuseum.org/alutiiq-people/art/arts-blog/carving/>
- *Keligcipet* — Carving Traditions: <https://alutiiqmuseum.org/wp-content/uploads/2023/10/CarvingTraditions2022.pdf>
- *Percipet* — Bending Traditions: <https://alutiiqmuseum.org/wp-content/uploads/2023/12/BendingTraditions2022-copy.pdf>
- Alutiiq Arts: Graphic Arts: <https://alutiiqmuseum.org/alutiiq-people/art/arts-blog/graphic-arts/>
- *Namiutat*—Graphic Arts: <https://alutiiqmuseum.org/wp-content/uploads/2023/10/GraphicArts2022.pdf>
- Amutat Database: Kayak: <https://alutiiqmuseum.org/collection/Search/amutatObjects?search=kayak&view=images&l=all>

- Alutiiq Word of the Week Archive: Kayak—*Qayaq*
<https://alutiiqmuseum.org/collection/Detail/word/303>
- Alutiiq Word of the Week Archive: Prow, Bow—*Qayam cuunga*
<https://alutiiqmuseum.org/collection/Detail/word/563>
- Alutiiq Word of the Week Archive: Measure—*Uspelluku*
<https://alutiiqmuseum.org/collection/Detail/word/665>
- Alutiiq Word of the Week Archive: Two-hatched Kayak—*Qayarpak*
<https://alutiiqmuseum.org/collection/Detail/word/601>

Quyanaa—Thank you.

This lesson plan was produced with generous support from a Maritime Heritage grant from the Alaska Office of History and Archaeology and the National Park Service.



Qayat Igaa'it Kayak Designs

Once near a cape at the entrance to a bay, there lived a marine animal about the size of a cat that would capsize all the **angyat–open skin boats** that went around the cape. The Alutiiq people considered this place very dangerous and stayed far away from the cape, not daring to come close. One day, a young Alutiiq man decided to kill the animal. To do this, he built a **qayaq–kayak** with one hatch and painted one side of the *qayaq* red and the other side black. On the cover of the *qayaq*, he painted the following images.

On the front left, he painted a large clam **salaq–shell**, on the front right, a human **aigaq–hand**, on the back left, an **agyaq–star**, and on the other side, a *qayaq*. He repeated the same figures on his float and the palm of his hands. Then he took a spear with which he had killed five men and left without telling anyone about his plans. In the place where the animal was supposed to be, he heard a sort of whispering, then a lapping. Then he saw the animal moving toward his *qayaq*. “Against me,” he said, “you cannot do anything.” Then he showed the large clam *salaq* and said, “You see this figure, the *salaq*? It is the power of the sea, which can seize you.” Showing the human *aigaq*, he said, “You see this *aigaq*, it is the power of man, who can seize you.” Now while displaying the *agyaq*, “You see this *agyaq*, it shows you the power from higher up, which can also seize you.” And finally showing the *qayaq*, “You see the *qayaq*, it shows you how it can contain you.”












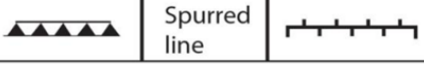


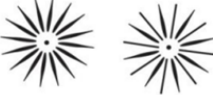

While he was speaking, the animal was circling the *qayaq*. The Alutiiq man grabbed the spear with which he had killed five men, and throwing it, killed the animal. He took the animal’s body to the shore and spent the night there. When he returned to the village, everybody thought he was dead. He did not tell anyone that he had killed the beast at first. Then he asked who in the village would go with him toward the cape. When everyone refused, he decided to tell them he had killed the animal.

To remember this event, people paint figures on the *qayaq* to protect them if they meet a monster at sea.

Adapted from an Afognak Island legend told to Alphonse Pinart by Nikkepon Celeznoff in 1872, from a translation by Céline Wallace. Pinart Papers, Bancroft Library, University of California Berkeley. See also, Koniag, Inc. (2008:63).

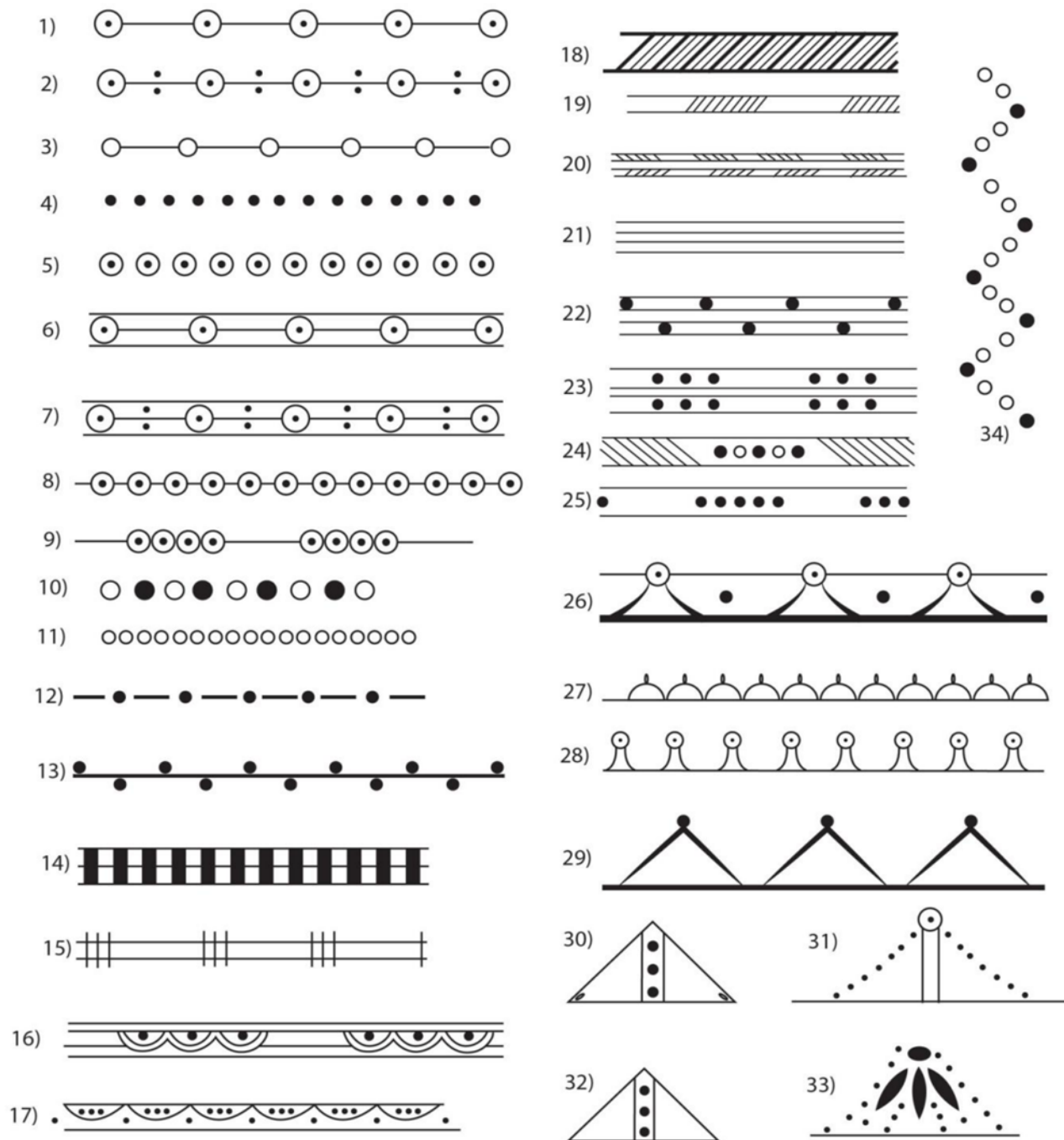
Painted Elements from Alutiiq and Unanga Hats

From: Glory Remembered Wooden Headgear of Alaska's Sea Mammal Hunters, Lydia T. Black, 1991, Alaska State Museum, Juneau.

Parallel bands design			
Spirals			
Curvilinear		Complex geometric designs	
4-Spur		Geometrics	
Rosettes		Circle-and-dot design	
Floral		"eye" design	
8-spur		Tooth or killer whale motif	
12-spur		Anthropomorphic/Representational	
16-spur		Zoomorphic/Representational	

Painted Elements from Alutiiq and Unangax̂ Hats

From: Aleut Hunting Headgear and its Ornamentation, S. V. Ivanov, 1930, Proceedings of the Twenty-third International Congress of Americanists.



Qayat Igait—Kayak Designs
Template for Painting

