

TRADITIONAL TRANSPORTATION: FINDING THE WAY GR: PREK-2 (LESSON 7&8)

Elder Quote/Belief:



"I used to walk twelve hours, thirteen hours from Port Graham to Port Chatham to Portlock (Koyuktolik Bay) when I was twelve or thirteen, whole bunch of us...we talked twelve or thirteen hours all day."

-Anesia Metcalf, Port Graham

Grade Level: PreK-2

Overview: Land trails through the Chugach Region connected villages, hunting sites, and allowed the Sugpiaq to carry their qayaq due to bad weather or to hike on an overland route to another body of water.

Standards:

<i>AK Cultural:</i>	<i>AK Content Science:</i>	<i>CRCC:</i>
D(1) Culturally-knowledgeable students are able to engage effectively in learning activities that are based on traditional ways of knowing and learning.	F(3) A student should understand the dynamic relationships among scientific, cultural, social and personal perspectives.	G(2) Students should be able to read local, regional and navigational maps.

Lesson Goal: Learn about Sugpiaq trail blazing and how to make trail markers.

Lesson Objective(s): Students will:

- Learn methods used by the Sugpiaq to mark a trail.
- Create trail markers from materials for a local trail.

Vocabulary Words:

Sugt'stun Dialects

English:	Prince William Sound:	Lower Cook Inlet:	Eyak:
Tree	nuguwaggtuq	napaq	lis
Travel	ang'asik ang'asiggluni ang'asigglutukut	ang'asik	qe (Travel by boat)
Stone Adz	Tupuuluq	Tupuuluq	XAt'aa

Materials/Resources Needed:

- If possible, invite an Elder or Recognized Expert from the Region to share their traditional ecological knowledge (TEK) and expertise to enrich the lesson(s).
- Ask for parent volunteers to assist with the trail walks and games
- Chugach Region Map
- 20 Whistles with lanyards
- Sharpie
- Acrylic Paint and Paint Brushes
- Acrylic Clear Sealer (spray can) **Teacher Use Only**
- Reusable bags (for collecting materials)
- “Trail Markers” by National Wildlife Federation, 2011
 - <http://nwf.org/Kids/Family-Fun/outdoor-activities/~media/10C32E59AD304E508A142449599054D7.ashx>

Document:

- [Alexandrovsk No. 2 pg. 54; “Trails”](#)

Teacher Preparation:

- Invite an Elder or Recognized Expert that could share their expertise on the lesson content.
- Before the Elder or Recognized Expert arrives, please review with all of the students, ways to show respect for the Elder during their visit.
- [Read Alexandrovsk No. 2 pg. 54; “Trails”](#)
- Make Copies of “Trail Markers” by National Wildlife Federation, 2011

For Class 1:

- Locate and set up paint supplies
- Cover tables with butcher paper
- Distribute painting supplies and paint brushes to each student

For Class II:

- Ask at least one teacher or adult volunteer for each group to accompany field trip activity.
- Have whistles for each group member and make sure they know to only blow the whistle for emergencies.

Opening:

The majority of the time, our ancestors would travel by qayaq, anyaq or dugout canoe, but when there was bad weather they would walk on trails. These trails were used by both people and wild animals. The Sugpiaq/ Eyak people would create their own trail markers to help guide their way home or to their next destination so they would not get lost.

There were different ways to mark trails. One common way used throughout the Chugach Region was known as “trail blazing”, or *cultural modified trees* (CMT). Traditionally, the Sugpiaq/Eyak people would make marks on trees on a pathway using a stone adz. This marking (modification) would be at eye level and alternate between the sides of a trail to keep people on the right path.

According to the article *Trails* from Alexandrovsk, page 54, trail blazing was used by the Sugpiaq people before the Civilian Conservation Corps. (C.C.C) trails were established. The blazing helped guide their way from villages, hunting/fishing sites and to celebrations.

Activities:

- If an Elder is available, provide time for Elder to talk about traditional trails used in the local area. If possible practice Sugt'stun or Eyak vocabulary words.

Class I: Trail Markers

1. Take a hike to a local trail or around your school to look at different types of trail signs and markers together fist sized rocks, small pebbles, pine cones, and small sticks. Teachers will collect all the materials gathered and label the baggies with student names to use for a classroom activity.
2. Using the handout "[Trail Making Marker](#)" by the National Wildlife Federation, teacher explanation and the materials the students collected on the hike (Except for the fist-sized rock. As a class, practice making the different types of trail marker for Go Straight, Turn Right/Left and Wrong Way.
3. Share information about the Sugpiaq of the Region and how they would mark or "blaze" trees.
4. Hand out the fist-sized rocks back to the students and explain they will be painting their rock for a trail marker. Please make sure your desks are covered with butcher paper.
 - Students come up with a trail marker design and paint the rock.Painted rocks can be used on a school trail or brought home for marking a trail.

Class II: Trail Games

1. Explain to the students that they will be playing hide and seek but with trail marking rules.
2. Divide into two groups: Trailblazers and Trackers.
3. Remind the students to stay together in their group and the leader will be given a whistle.
4. Inform the students that if someone becomes separated, everyone else stays together in one place and blow your whistle until help arrives.
5. Explain that the Trailblazers team will be in charge of making a trail using a specific trail marking method. Once the Trailblazers finished marking a trail, they will hide as a group. After 15 minutes the Trackers group will set off to follow their trail. Once the Trackers find the Trailblazers, have the groups switch roles. (This game can be used with a variety of markers and different trails)
6. If time permits, the students can incorporate Treasure Hunt game. Explain that one group as Trailblazers would mark a trail and hide something special at the end for the Trackers to find. Once found then they would switch roles.
7. Explain that the students could play the Trail Home game at home with their family, like when going on a hike with their family. They would mark a trail when exploring, picking berries, etc. and use your trail markers to help find way back home.

Assessment:

- Students can explain what is a trail marker, what is trail blazing and list traditional ways the trails were marked.
- Students will make and complete trailmarkers from materials they collected on a hike or around the school grounds.
- Students can successfully say the Sugt'stun/Eyak vocabulary words.

Trail Making Markers



Go Straight
Ahead



Turn Right



Turn Left



Wrong Way

Created by National Wildlife Federation, 2011

TRADITIONAL TRANSPORTATION: DUGOUT CANOE GR: PREK-2 (LESSON 6)

Elder Quote/Belief:



“Summer came and they would go around by boat. They made their first dugout canoes. They chopped down large cottonwood, and fashioned that into a canoe. They went in that into Eyak Lake. Then they tried spruce instead of cotton wood. That too was good. They carved large boats out of spruce.”

-Anna Nelson Harry¹

Anna Nelson Harry, Yakutat, about 1975. (Photo courtesy of Richard Dauenhauer)

Grade Level: PreK-2

Overview: The Eyak and Sugpiaq people traditionally carved dugout canoes in the Chugach Region, specifically in Prince William Sound. “The canoes were so seaworthy that they were used not just for interisland voyages to visit relatives or allies, but also to wage war and to engage in trade missions over hundreds of miles. In fact, dugout canoes plied the waters between Southeast Alaska, (Eyak) and Kodiak Island in the days before the coming of Europeans”. (Echo’s <http://www.echospace.org/articles/273/sections/665.html>)

Standards:

<i>AK Cultural:</i>	<i>AK Content Science:</i>	<i>CRCC:</i>
E4: Culturally-knowledgeable students demonstrate an awareness and appreciation of the relationships and processes of interaction of all elements in the world around them. A student should determine how ideas and concepts from one knowledge system relate to those derived from another knowledge system.	B2: A student should understand and be able to apply the concepts, models, theories, universal principles, and facts that explain the physical world.	MC1: Different kinds of wood have different qualities and different uses; wood can be obtained from the forest and from driftwood.

Lesson Goal: To learn about the basic construction process of the dugout canoe and make a small simulation out of modeling clay.

Lesson Objective(s): Students will:

- Understand how spruce logs were carved using tools into a canoe.
- Learn the uses and purpose of the dugout canoe.
- Learn about other cultural groups who also used the dugout canoe for travel.

Vocabulary Words: Sugt'stun Dialects

English:	Prince William Sound:	Lower Cook Inlet:	Eyak:
Spruce	Napak	Napak	lis
Cottonwood	ciquq	ciquq	t'AXgsg
Canoe	pattakun	pattakun	AXAkih
Adze		Tupuuluq	XAt'aa

Materials/Resources Needed:

- Elder or Recognized Expert to share their traditional ecological knowledge (TEK) and expertise on subject.
- Modeling Clay
- Plastic clay carving tools.
- Paint (Crayola Acrylic) and paint brushes
- Plastic cloth for painting station
- Construction paper for modeling clay work
- Model of dugout canoe

Books:

- *Jason's New Dugout Canoe* by Joe Barber-Starkley
- *Qayaqs & Canoes; Native Ways of Knowing* by Jan Steinbright
- *Eyak Legends: Stories and Photographs*. Anchorage: Chugach Heritage Foundation.

Teacher Preparation:

- Invite an Elder or Recognized Expert to share TEK expertise.
- Review with students regarding the proper ways to host and respect a guest in classroom.
- Collect the materials and resources needed from the kit.
- Construction paper for each student to use as a placemat to work on at desks/tables
- Cut rectangular pieces of modeling clay approximately 2"x 5" for each students to carve
- Divide students into small working groups to share plastic carving tools.
- Display poster board picture and the model of the dugout canoe.

Opening: Sugpiaq and Eyak people of the Chugach Region developed distinct styles of boats used for travel to gather resources, transport people, hunt, and attend celebrations. Today, we are going to learn about the dugout canoe from the Eyak people.

Activities:**Class I:**

1. If available, introduce the Elder or Recognize Expert to share TEK expertise and stories.

2. Students will gather to view model of a dugout canoe. Pass around the model to see the craftsmanship used to build the canoe. Share the diagram of dugout canoe construction explaining the process; cutting down of tree, carving and hollowing out the log, steaming open the boat with fire heated rocks and sea water to expand the gunwales.
3. Read the story *Jason's New Dugout Canoe* by Joe Barber-Starkley out loud to class.
4. Students will return to work station to make a dugout canoe with modeling clay.
5. Provide each student with a rectangular piece of modeling clay approximately 2"x 5".
6. Using the included plastic tools, have the students carve and hollow out their clay to make a dugout canoe.
 - a. Note: if using the tools is too complicated, students can also use their fingers and mold a canoe from the clay.
7. When students complete their canoe, instruct students to place the canoe in a designated area for drying. Expect drying to take 24-48 hours.
8. Once the clay dugout canoes have dried, they are ready to paint with the paints.
9. Allow the paint to dry overnight.
10. Take a picture of students with their projects to share.

Assessment:

- Students can describe the basics of how a dugout canoe is constructed.
- Students can explain who uses the dugout canoe and what it was used for.
- Students constructed a close replica of the dugout canoe out of modeling clay.



Eyak Dugout Canoe, Ray Moss Collection, Alaska Historical Library

Parts of an Eyak Dugout Canoe



Dugout Canoe located at the Ilanka Center in Cordova (Photo courtesy of Kari Brookover)

Stern

Keel

Bulbous Bow

¹ Eyak Legends page 104 Recorded in 1965, Yakutat.

TRADITIONAL TRANSPORTATION: WATER SAFETY GR: PREK-2 (LESSON 5)

Elder Quote/Belief:



“Flotation you would think because they used them for bagging up their seagull eggs in seal oil, and then they might of used that as flotation too, that stomach of the sea lion or seal.”
-Wally Kvasnikoff, Nanwalek, Alaska¹

Grade Level: PreK-2

Overview: The people of the Chugach Region traveled safely by observing the weather, tides and winds. Water safety is an important skill for all who travel, fish and hunt by boat or recreate near our rivers, lakes, streams and ocean.

Standards:

<i>AK Cultural:</i>	<i>AK Content Science:</i>	<i>CRCC:</i>
E4: Culturally-knowledgeable students demonstrate an awareness and appreciation of the relationships and processes of the interaction of all elements in the world around them.	F1: A students should understand the dynamic relationships between scientific, cultural, social and personal perspectives.	S1: Students should know the importance of outdoor/seasonal survival skills and the potential risks that are involved.

Lesson Goal: Children love to swim and play near the water. In this lesson we will talk about how the Sugpiaq/Eyak people traditionally stayed safe in and around the water.

Lesson Objective(s): Students will:

- Learn about traditional safety measures by observing weather and tides.
- Learn about Personal Flotation Devices (PFD), how to correctly put them on.
- Learn safety rules from *Kids Don't Float* program.

Vocabulary Words:

Sugt'stun Dialects

English:	Prince William Sound:	Lower Cook Inlet:	Eyak:
Weather		Ila	
Tide		Kenlluni- Tide Goes out Tung'irluni- Tide come in	

Materials/Resources Needed:

- Invite an Elder or Recognized Expert to share their traditional ecological knowledge (TEK) and expertise on the subject.
- Sea Lion Stomach Float (photo or actual)
- Personal Floatation Devices from your community to use for demonstrations.
- Chugachmiut Video: [Preschoolers Using Personal Safety : Water Safety](#) (English and Sugt'stun)
- Tide Book or online (Free and available every calendar year) <http://www.tides.net/alaska/>

Teacher Preparation:

- Invite an Elder or Recognized Expert that could share their TEK expertise on water safety.
- Before the Elder or Recognized Expert arrives, please review with all of the students, ways to show respect for the Elder during their visit.
- If needed, make a permission slip to have students receive parent permission to participate on a field trip.
- Review and mark the videos and/or websites to quickly show the students.
- Collect a variety (kid/youth sizes and adult size) of Personal Floatation Devices from your community to use for demonstrations.
- Visit the Kid Don't Float website for contest rules, dates, directions, and paper sizes.
 - <http://dnr.alaska.gov/parks/boating/kdf/poster/kdfpostercontest.htm>

Opening:

The Chugach Region is surrounded by water and it is very important to stay safe near and in the water. Traditionally, the Sugpiaq and Eyak traveled extensively through the ocean to seasonal villages and subsistence hunting grounds. The Sugpiaq and Eyak traveled in groups for hunting purposes and safety. Each qayaq and dugout canoe was outfitted with tools, extra paddles and hunting equipment which included floats made from seal or sea lion stomach or bladder. It is possible these floats could also be used in an emergency as a floatation device.

An important aspect of staying safe was to know the weather before traveling on the water. Without television and radios, our ancestors relied on the traditional ecological knowledge of a traditional weatherman who would watch for upcoming storms, tidal currents and navigation via the stars. Only one person was chosen to have the title and many relied on him. "The weatherman was considered one of the most important members of the community and the lives of many men could depend on him."ⁱ Traditionally, the weatherman (as described in [Chugach Navigation](#)), would lie on his back to observe the different types and layers of clouds. The weatherman would also look at the wave swells (both size and frequency) and direction of the winds. To stay safe, our ancestors knew the terrain, safe landing spots, and dangerous places to avoid in bad weather. They also instinctively knew when they needed to land on shore and wait out the bad weather.

Today, we are going to explore more about traditional weather observation and personal water safety.

Activities:

Class I: Weather, Wind and Tides

1. Prior to this class if going on field trip, have the students obtain permission.
2. Inform students that today, we will observe our weather, tides, and winds so we will go out to a location at school, or in the community, to observe the weather, winds and tides.
3. Ask the students to lie, sit or stand quietly and look up at the sky. After a minute, ask each student to describe what they see, feel and hear.
4. Ask the students to decide (yes or no) if it is a good day to paddle a qayaq or dugout canoe in the ocean. (This activity can be repeated for several days to observe different conditions.)
5. Upon return to the classroom, ask the students to draw what they saw, felt, heard of their environment and determine if it was a good day to go out on the ocean.
6. Questions to reflect with students:
 - How do we determine if it is a good day for boating today?
 - To stay safe, what types of tools do your parents and/or grandparents use to determine the weather, tides and winds?

Class II: Personal Flotation Devices

1. Ask students how many have a lifejacket? Let us look at a couple of lifejackets and discuss water safety in your community.
2. If possible bring an Elder to share a story about being safe on or in the water. What did they do to prepare before traveling on the water. What do they do to be safe while they are traveling on the water? What types of lifejackets did they grow up with?
 - a. Show photos or actual blown up seal stomach that was traditionally used for flotation.
3. Watch the Chugachmiut Video: [*Preschoolers Using Personal Safety : Water Safety*](#) (English and Sugt'stun)
4. Ask the students if know how to put on the life jackets? Bring out your lifejacket examples. Ask for volunteers to try them on. Correct them if they are putting on the jacket wrong.
5. Do you know how to make sure your lifejacket fits correctly?
 - a. If it is too big, you could swim out of your lifejacket.
 - b. A lifejacket should be snug and not ride up over your head.
6. Let's review water safety rules (Taken from the *Kids Don't Float Program*):
 - a. **Buddy System:** When you are near the ocean, streams, creeks, it is very important to always have an adult with you. Always follow the rules made by the adult. Such as:
 - i. Always walk on the docks
 - ii. Stay seated when the boat is moving.
 - iii. Swim with an adult and a lifejacket
 - iv. Always let an adult know where you are going.
 - b. **Wear Shoes:** Rocks, sticks and other items may hurt your feet if you are trying to get out of the water or rescue yourself. Rain boots can weigh a child down if they fall in, wear water shoes or old sneakers.
 - c. **Bad Weather:** If there are waves or winds; stay off or out of the water.
 - d. **Be Prepared:** Carry extra warm clothes, first aid kit and a phone or radio to call for help.
 - e. **Skill Practice:** always practice swimming with an adult who can swim.

***Optional**

Class III for 2nd Grade: Poster Contest

1. Review the rules for the poster if interested in submitting for contest.
 - a. Poster Contest with the Alaska Boating Safety Program- Web link for contest rules, forms and dates: <http://dnr.alaska.gov/parks/boating/kdf/poster/kdfpostercontest.htm>
 - b. Eligibility and Guidelines
 - Open to all Alaska elementary school students (kindergarten through sixth grade).
 - Poster entries should support the *Kids Don't Float* objectives of educating Alaskans about the importance of always wearing a life jacket when boating and the dangers of Alaska's cold water.
 - Entrants are encouraged to use information from the Office of Boating Safety's website and publications.
 - Poster submissions become the property of the Alaska Office of Boating Safety.
 - Students may use any materials to construct their poster. Entries must be between 8 ½" x 11" and 16" x 20".

Assessment:

- Students can explain what they have observed about the weather they saw, felt and heard and whether it was safe to travel on the ocean.
- Students can successfully put on a lifejacket.
- Students can describe two important water safety rules.



Sea Lion Stomach Floatⁱⁱ



Children swimming in Port Graham, ca. 1960, with boats moored on pilings in background. Ella Moonin, Larry Moonin, unknown, Luba Anahonak

Photo Courtesy of Luba Meganack

ⁱ Chugach Navigator; W.W. Mitchell, Cooperative Park Studies Unit, University of Alaska, Fairbanks.

ⁱⁱ Photo Credit: <https://www.worthpoint.com/worthopedia/sealion-stomach-eskimo-harpoon-float-from>

TRADITIONAL TRANSPORTATION: PADDLES GR: PREK-2 (LESSON 4)

Elder Quote/Belief: *“The blades of the Sugpiaq-Alutiiq paddles are very thin and the paddles are therefore extremely light and feel quite dainty.”-Harvey Goldenⁱ*

Grade Level: PreK-2

Overview: The Sugpiaq paddle is designed to fit the hunter and be very quiet in the water. Paddles were traditionally made using body measurement for the blade and shaft length, and hand measurements for the blade width. Traditional designs were then painted on the paddles using natural paints from oar and plants.

Standards:

<i>AK Cultural:</i>	<i>AK Content Science:</i>	<i>CRCC:</i>
D5: Culturally-knowledgeable students are able to engage effectively in learning activities that are based on traditional ways of knowing and learning.	F1: A Student should understand the dynamic relationships among scientific, cultural, social and personal perspectives.	S7 Students should know how to make tools from natural resources in the outdoor environment.

Lesson Goal: Learn about the Sugpiaq paddle shape and designs. Color and cut out a paddle to take home. The students will be learning the song “Tuguis, Tuguis”/“Row, Row, Row Your Boat” in Sugt’s tun.

Lesson Objective(s): Students will:

- Listen and sing the song “Tuguis, Tuguis”.
- Color a picture of a Sugpiaq style paddle with traditional colors and designs

Vocabulary Words:

Sugt’s tun Dialects

English:	Prince William Sound:	Lower Cook Inlet:	Eyak:
Paddle	paqun	paqun	kAwusgL
Row	tuguis	tuguis	
Kayak	Qayaq	Qayaq	gAyAXgug

Materials/Resources Needed:

- If possible, invite an Elder or Recognized Expert from the Region to share their traditional ecological knowledge (TEK) and expertise to enrich the lesson(s).
- Paddle Blade Template (Included)
- Markers or Crayons (Not Included)
- Scissors (Not Included)
- Full length paddle from kit
- Video: [“Tuguis Tuguis”/“Row, Row, Row Your Boat” sung by Ephimia Moonin-Wilson](#)
- Book: [The Chugach Eskimo pg. 45-51](#)

Teacher Preparation:

- Invite an Elder or Recognized Expert that could share their TEK expertise on the lesson content.
- Before the Elder or Recognized Expert arrives, please review with all of the students, ways to show respect for the Elder during their visit.
- Watch video and Listen to [“Tuguis Tuguis”/“Row, Row, Row Your Boat” in Sugt’stun](#)
- Make copies of the paddle template for each student.
- Review the paddle measurements in [Chugach Eskimo](#), p. 46-48. Make copy to read.
- Prepare a chart to measure students for paddle height and blade width.

Opening:

The Sugpiaq and Eyak of the Chugach region used a single bladed paddle to navigate the kayak, anyaq and dugout canoe. The paddles were carved from a single piece of spruce, hemlock or driftwood. The Sugpiaq carved the paddles with stone tools made from slate or green stone rocks. The length of the paddles is determined by: type of boat, paddler’s height and hand width. Some paddles were painted and decorated with designs or hunting scenes. These measurements can be references in *Chugach Eskimo*, pages 46-48.

The Sugpiaq paddle was made with a long tip and narrow blade to reduce wind resistance and so the paddle would enter the water without any noise. Being quiet was important for paddler to sneak up on a seal or sea lion.

Today, we will color a Sugpiaq paddle, learn how to sing “*Tuguis, Tuguis (Row, Row, Row Your Boat)*” in Sugt’stun and together as a class we will measure each student to see how big an actual paddle would be based on traditional measuring methods.

Activities:

Class I:

1. Introduce Elder/Recognized Expert if available. Allow time for students to ask questions.
2. Gather students to view paddle examples and learn the parts of a paddle in Sugt’stun and Eyak.
3. Coloring the Paddle
 - a. Give each student the paddle template.
 - b. Ask the student to color their paddles. Encourage students to use designs or nature scenes to decorate their paddle.
 - c. Ask students to cut the paddle out and display for all to see.
4. If time allows, measure each student for their specific sized paddle according to traditional ways.
5. Listen and sing “*Tuguis Tuguis*”/“*Row, Row, Row Your Boat*” in Sugt’stun.

Assessment:

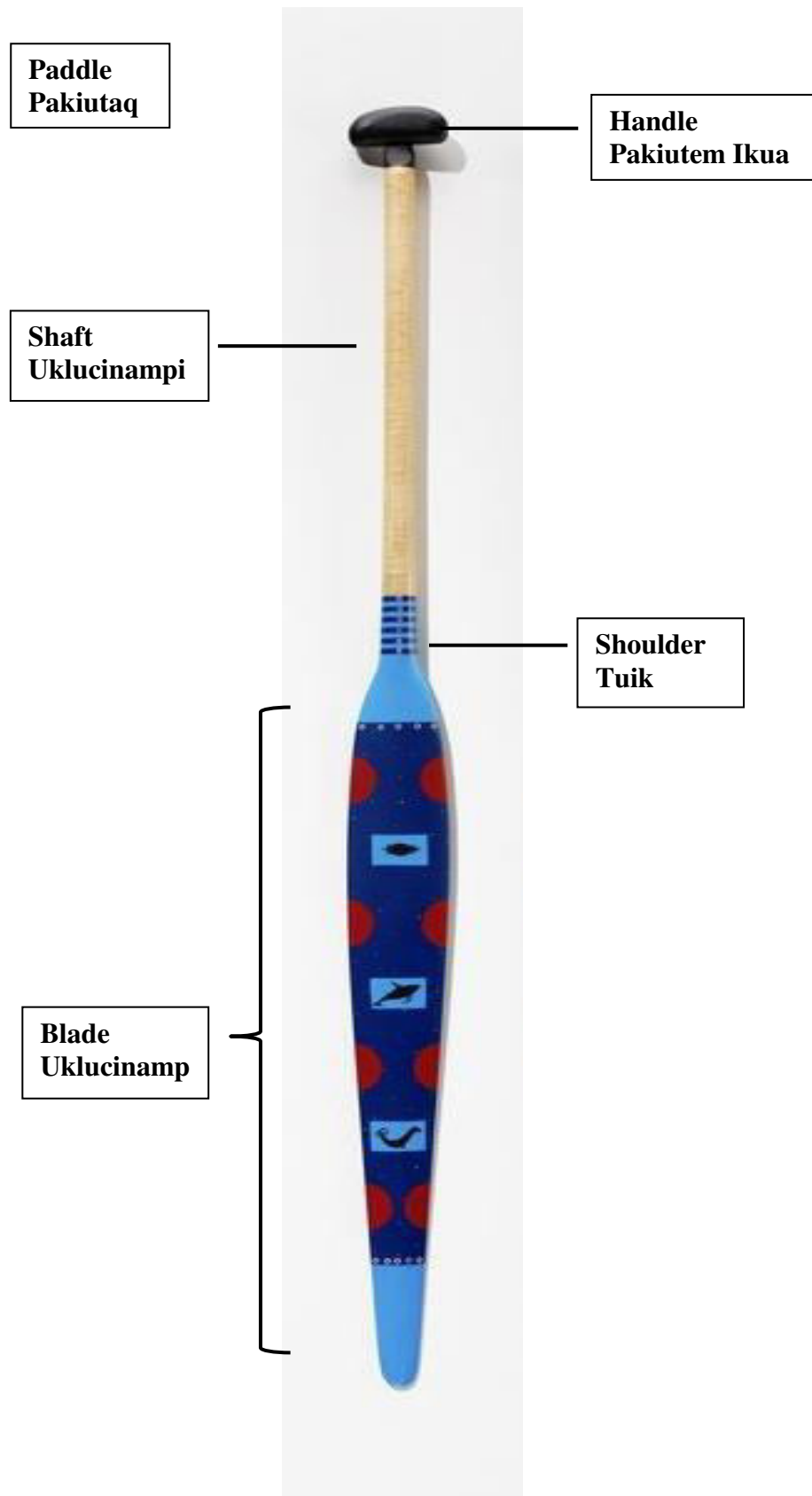
Students can explain how the traditional way to measure for building a paddle.

Students complete coloring paddle with traditional colors.

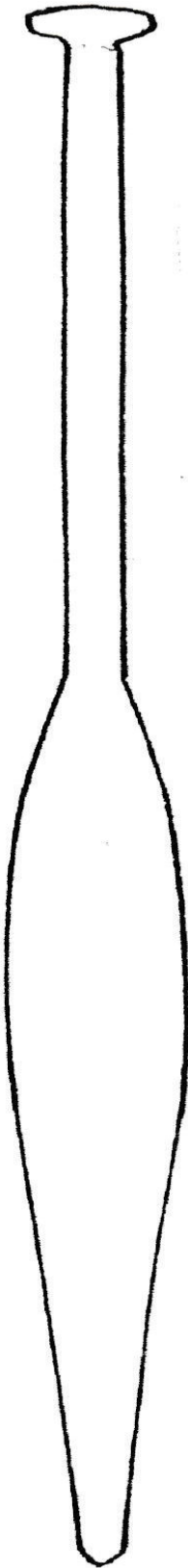
Students are able to sing “*Tuguis Tuguis*”/“*Row, Row, Row Your Boat*” in Sugt’stun.

¹ *Kayaks of Alaska* page 460

English and Sugt'stun vocabulary



Sugpiaq Paddle Template



Elder Quote/Belief:



“During the spring seal hunts, it would take seven female sealskins to cover a bidarka frame”

-Andy Selanoff, Chenega ¹

Grade Level: PreK-2

Overview: The Sugpiaq qayaq is made from a wooden frame. The wooden frame from driftwood is covered with the sewn skins from a seal or sea lion. The qayaq frame is constructed in a particular way where no nails are needed. Each material used in the qayaq frame and outer skin are collected by hand and built with hand tools.

Standards:

<i>AK Cultural:</i>	<i>AK Content Science:</i>	<i>CRCC:</i>
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.	F3 Cultural, Social, Personal Perspectives and Science: A student should understand the dynamic relationships among scientific, cultural, social and personal perspectives.	S7 Students should know how to make tools from natural resources in the outdoor environment.

Lesson Goal: Understand the process of gathering materials and building a qayaq from driftwood, seal or sea lion skin, and sinew.

Lesson Objective(s): Students will:

- Learn Sugt’stun/ Eyak vocabulary
- Learn about materials used in traditional qayaq construction.

Vocabulary Words:

Sugt’stun Dialects

English:	Prince William Sound:	Lower Cook Inlet:	Eyak:
Kayak	qayaq	qayaq	gAyAXgug
Driftwood	Tep’ak	Tep’ak	Wood: dAkinh
Sea Lion	winaq	winaq	k’umah

Seal	Qaigyam	qaigyaq	geeLtaag, keeLtaag
Skin	Amiq	amiq	tah

Materials/Resources Needed:

- Elder or Recognized Expert to share knowledge of traditional qayaq/kayak/bidarka
- Display qayaqs: wooden frame and nylon skin frame and small qayaq model
- Materials: Seal and sea lion skins, sinew
- Book: *The Hunter and the Hunted: Alutiiq Seal Hunter and Harbor Seal* by Pratt Museum

Teacher Preparation:

- Invite Elder or Recognized Expert to share knowledge on traditional qayaqs
- Review proper ways to show respect for guest in classroom
- Locate materials needed for lesson
- Review book
- Set up displays of the traditional qayaq
- Gather small and large samples of skins, wood samples, and sinew to share.

Opening:

Introduce guest if available. Gather students around the displays of the qayaq frame and skin on frame. Begin by asking students a few questions for prior knowledge on the traditional qayaq. What type of materials do you think were used to make the traditional qayaq? Where did they find these materials? Let us find out more about the traditional qayaq construction.

Activities:

Class I:

1. Students will gather to view and investigate the displays of the skin on frame and wood frame of the qayaq.
2. Read *The Hunter and the Hunted*, pages 1-3
3. Ask the students questions for comprehension of materials and construction methods.
 - What animal is the skin of the qayaq from?
 - Where did/do the Sugpiaq gather wood?
 - How does the frame of the qayaq stay together?
 - How did the Sugpiaq attach the skins to the qayaq?

Students will draw a picture or write a sentence sharing what they learned about the qayaq materials.

Assessment:

- Students can draw a picture or write a sentence that correctly illustrates the qayaq construction.
- Students can correctly use a Sugt'stun/ Eyak word to their sentence or picture

¹ Smelcer, J. E. (2006). *The Day that Cries Forever: Stories of the Destruction of Chenega during the 1964 Alaska Earthquake*. Anchorage, AK: Chenega Future, Inc.



BIFURCATED BOW
Wrapped with seal skin

Traditional qayaq located in Cordova Historical Museum, Photo courtesy Nick Jordan



Traditional qayaq located in Cordova Historical Museum, Photo courtesy Nick Jordan



Qayaq located in Cordova Historical Museum, Photo courtesy Nick Jordan



Traditional qayaq located in Cordova Historical Museum, Photo courtesy of Barclay Kopchak



Traditional qayaq located in Cordova Historical Museum, Photo courtesy Barclay Kopchak

TRADITIONAL TRANSPORTATION: EXPLORING THE QAYAQ GR: PREK-2 (LESSON 2)

Elder Quote Belief:



“It helps when you’re out there in rough water. It definitely works. I don’t know whose idea it was, but you would have to be very smart to figure that out. They traveled in very rough seas out here. I’ve been in a boat where forty- or fifty-foot boat couldn’t travel where our people traveled in their fifteen- to sixteen-foot kayaks. They landed on the rocks on the beach with no problem. The bigger boats would just sink.”

-Nick Tanape, Nanwalek¹

Grade Level: PreK-2

Overview: The Sugpiaq people of the Chugach Region developed a unique qayaq/kayak with a bifurcated bow. The qayaq supported many activities for sustaining life. The Sugpiaq used the qayaq to hunt and fish, transport resources, and move families from village to village.

Standards:

<i>AK Cultural:</i>	<i>AK Science Content:</i>	<i>CRCC:</i>
B 2 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.	E 1 Science and Technology: A student should understand the relationships among science, technology, and society.	CE9 Students should have respected and appreciation for their own cultures as well as the cultures of others.

Lesson Goal: Learn about the uses of qayaqs in the Chugach Region and the unique construction used.

Lesson Objective(s): Students will:

- Learn Sugt’stun words for qayaq parts
- Color, cut and make a paper qayaq from PreK-2 template.
- Learn about the unique design of the Chugach Region bifid (split) bow on the qayaq.

Vocabulary Words: Sugt’stun Dialects

English	Prince William Sound	Lower Cook Inlet	Eyak
Kayak	Qayaq	Qayaq	gAyAXgug
Bow	Nanguna		
Stern	nucuguia	cuunga	qu’LXaad
Ribs	unarat	nugluku	
Cockpit	atuna	rraatan	

Materials/Resources Needed:

- Elder or Recognized Expert to share traditional ecological knowledge (TEK) and expertise on subject.
- Classroom set of the paper qayaq template (attached)
- Colored crayons or markers
- Scissors
- Glue or tape

In Kit:

- Qayaq model and large die cut photo
- Banners

Books/Documents:

- *Qayaqs and Canoes: Native Ways of Knowing* by Jan Steinbright
- Article, *Skin Boats* told by Sergius Moonin [Alexandrovsk Volume 2](#)

Teacher Preparation:

- Elder or Recognized Expert to share traditional ecological knowledge (TEK) and expertise.
- Review the proper ways to show respect to guest in classroom.
- Review the book *Qayaqs and Canoes: Native Ways of Knowing*, page 76-87 and review any video resources on website.
- Display model qayaqs and hang up banners around classroom.
- Preview the article on Skin Boats told by Sergius Moonin in [Alexandrovsk Volume 2](#)
- Make copies of the qayaq templates, one per student. (Attached)
- Gather supplies: crayons, markers, scissors, tape, glue as needed.

Opening: Have you ever paddled or sat in a kayak/qayaq before? (Pass around photos and diagrams of a skin on frame qayaq.) I am going to read an article on *Skin Boats* by Sergius Moonin from Nanwalek. Please listen carefully as he describes these traditional boats and what they did.

Have a discussion and describe the uses of a qayaq; to travel from place to place, for fishing and hunting, moving materials from different locations, transport families from villages and camps.

It is amazing how the Sugpiaq/Eyak people would travel many miles, in some cases they would travel for months to trade, visit family or sometimes for war.

Activities:**Class I:**

1. Read the story *Skin Boats* told by Sergius Moonin out loud to the students.
2. Have the students gather around the banners, especially to focus on the bow of the qayaq.
3. Ask students to notice how the bow has a split? Explain the reason for the split bow, it was designed to absorb the waves and act as a “shock absorber”. How ingenious!
4. Ask students to guess where this unique piece of wood could come from. (Below is a photo example).
5. Share the photos and diagrams (included in kit) of traditional qayaqs.
6. Discuss the parts of a qayaq using English, Sugt'stun/ Eyak vocabulary words.

7. Have the students to design and create paper qayaq from the template.

Assessment:

- Students correctly describe the parts of a qayaq with Sugt'stun/Eyak vocabulary.
- Students successfully complete paper qayaq project.

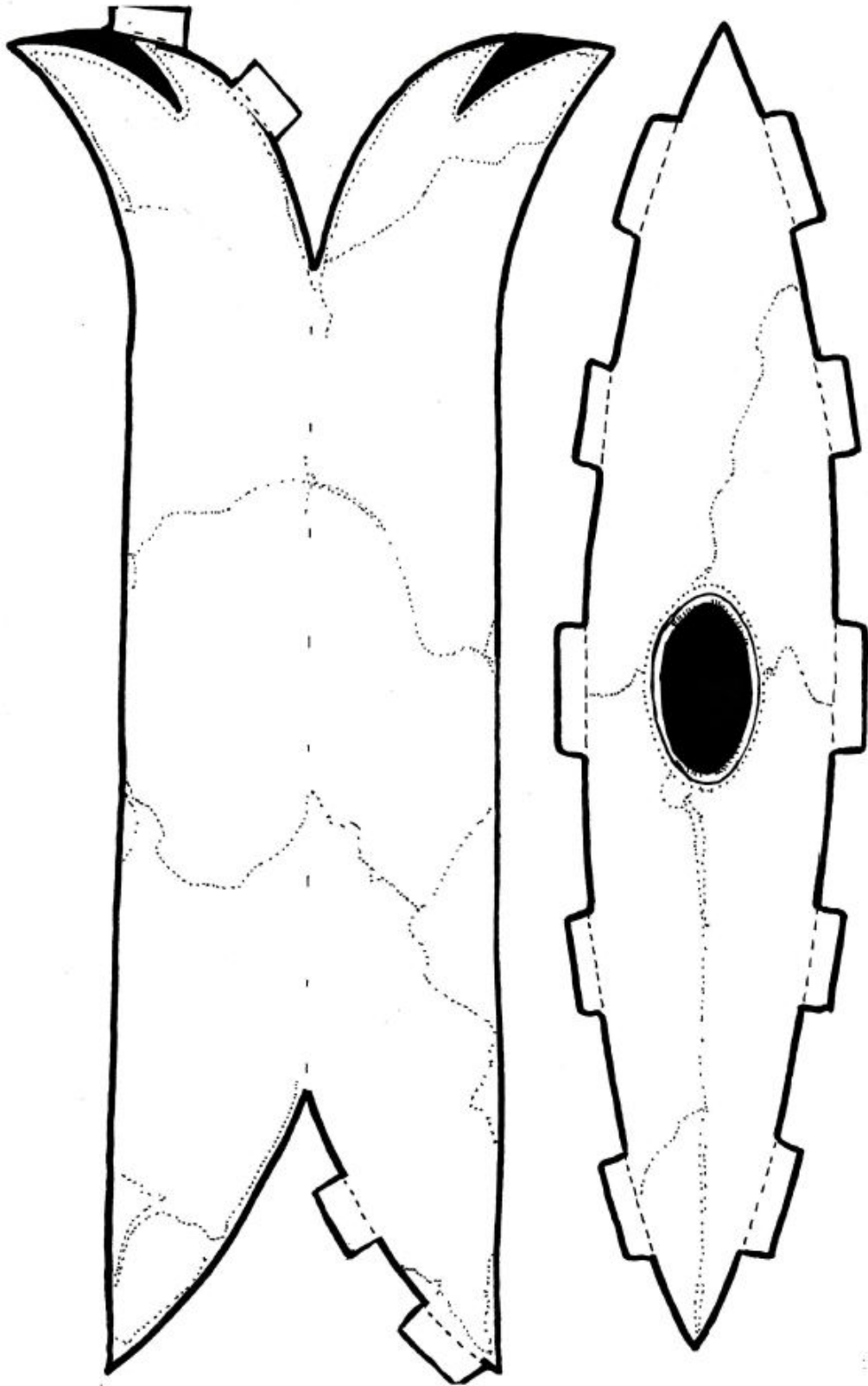
¹Jackson, J. S., & Mishler, C. (2001). *Qayaqs & canoes: Native ways of knowing*. Anchorage, AK: Alaska Native Heritage Center.



Bifurcated Bow of the Chugach Sugpiaq



Can you see the potential bifurcated bow in this picture?



TRADITIONAL TRANSPORTATION: WATERCRAFT STYLES GR: PREK-2 (LESSON 1)

Elder Quote/ Belief: “I watched Alex Anahonak build a bidarki kayak for the last time.... First, we put some [hot] rocks into a container of water and made the water boil so when he was ready to bend the frames he just had to put them in the water. That made them bend easier. Then he put the ribs and frames together with sinew.” Joe Tanape,ⁱ

Grade Level: PreK-2

Overview: Our Chugach Region ancestors relied on being able to travel on the water for food, trade and transportation. The Sugpiat people utilized various types of boats to successfully travel throughout the Region and beyond.

Standards:

<i>AK Cultural:</i>	<i>AK Content Science:</i>	<i>CRCC:</i>
D5 Culturally-knowledgeable students are able to engage effectively in learning activities that are based on traditional ways of knowing and learning.	F1 A Student should understand the dynamic relationships among scientific, cultural, social and personal perspectives.	S7 Students should have respect and appreciation for their own cultures as well as the cultures of others.

Lesson Goal: Learn to identify traditional boats of the Chugach Region.

Lesson Objective(s): Students will:

- Learn about the different types of boats used for travel.
- Students will learn to identify materials using an identification game.
- Learn Sugt'stun words for Kayak, Dugout Canoe, and Open Skin Boat

Vocabulary Words: Sugt'stun Dialects

English	PWS	Lower Cook Inlet	Eyak
Kayak	Qayaq	Qayaq	gAyAXgug
Dugout Canoe			AXAkih
Open Skin Boat	Angyaq	Anyaq (or) Palagg'uutaq	AX ya'XAkih yahdAya'da'X

Materials/Resources Needed:

- Watercraft models (Qayaq/Kayak, Open Skin Boat, and Dugout Canoe)
- Display photos of boats from the Chugach Region

Teacher Preparation:

- Set up roll up posters of traditional boats.
- Set up watercraft models on stands.

Opening: Have students gather around on the floor and start the lesson to describe the life of the Chugach Region ancestors and how they travelled. Show the students the photos boards and traditional boats models, naming their Sugt'stun or Eyak word as they are pointed out Have a discussion of ways that are similar today, Have you ever been in a boat? Have you ever been in a kayak? Can you imagine a time before we had fuel and power boats how the traditional way of travelling was with qayaq, anyaqs or dugout canoes? Today, we will explore the variety of boats and look at how the boats were used throughout the Chugach Region.

Activities:

Class I:

1. Using the roll up display of traditional boats, share with students the different types of watercrafts in the Chugach Region.
2. Share with students the English, Sugt'stun and Eyak words. Have students, as a group, practice and repeat the Sugt'stun and Eyak words.
3. Refer back to the displays and pose the question, "What do you think dugout canoes were made from?"
4. What types of tools did the Sugpiaq and Eyak use to make their boats?
 - a. Observe each boat individually and list the types of tools that could have been used to make the boats.
5. Ask each student; "Which boat you would like to ride in?" and why.

Assessment:

- Student correctly identify each traditional boat used in Chugach Region.
- Student can recite the Sugt'sun/Eyak vocabulary words.

ⁱ Alexandrovsk No.2 1980ⁱ