

TRADITIONAL TRANSPORTATION: QAYAQ MATERIALS GR: 3-5 (LESSON 3)

Elder Quote/Belief: “When it came to covering a Baidarka, everything was a communal effort. All the women got together because there were no set patters. The way the seal skins were cut they were just cut to fit the bairarka with whatever they had, so all the seams were kind of irregular in that manner. They’d get together and try to fit the skins the best they can without waste and they’d sew all the seams together and sit here and chew on the seam, and all the sewing was down with the porpoise sinew. -Bill Hjort, *Chenega Diaries*

Grade Level: 3-5

Overview: The Sugpiaq qayaq is made from a wooden frame and covered with the sewn skins from a sea lion. The qayaq frame is constructed 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>
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(3) Science and Technology: A student should understand the relationships among science, technology and society.	S(6) 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/kayak 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/kayak construction.
- Learn where to find materials used in qayaq/kayak construction.

Vocabulary Words: Sugt’stun Dialects

English:	Prince William Sound:	Lower Cook Inlet:	Eyak:
Qayaq/Kayak	qayaq	qayaq	gAyAXgug
Driftwood	Tep’ak	Tep’ak	Wood: dAkinh
Sea Lion	winaq	winaq	k’umah
Seal	qaigyaq	qaigyaq	geeLtaag, keeLtaag
Sinew			
Porpoise	qaniq	mangtak	qe’xuutl’
Skin	amiq	amiq	tah

Materials/Resources Needed:

- Story from *Alexandrovsk*: “Skin Boats” by Sergius Moonin (attached to lesson)
- *Chenega: As I saw it-It’s People* by Bobby A. Stamp (page 20)
- *Alutiiq Traditions*: “Kayaks-Qayat” article on page 13
- Kayak Display of Wooden Frame and Skin Frame and Small Model
- Materials: Seal Skin, sinew, Sea Lion Skin, Driftwood
- View Video: The Gathering Tamamta Katurlluta (Pratt Museum)
 - <https://www.youtube.com/watch?v=FRyHIMe9oIM>

Teacher Preparation:

- Set up the roll up displays and model of traditional qayaq/kayak.
- Gather samples of skins, wood samples, and sinew.
- Locate, review and tag the stories and articles for easy access to read out loud to the students.
- Review and set up the video to show students.
- Make copies of **Qayaq Observation Chart** for each student.

Opening:

As you quietly look at the displays and models, I want you to think about what type of materials were used to build the traditional qayaq? I am going to hand out a *Qayaq Observation Chart* worksheet and want you to quietly complete just the **pre** observation portion at this time. Once finished please sit down and raise your hand so we can continue.

What are some of your answers for materials used? After a few minutes of answers, then we are going to delve into materials used for the traditional qayaq construction.

The Sugpiaq qayaq is made from a wooden frame and covered with the sewn skins from a sea lion. Can you believe that the traditional qayaq frame was constructed not using any nails? They used sinew of animals to tie the frame together. Each material used in the qayaq frame and outer skin were collected by hand and built with hand tools. Discuss the where the materials came from that were used in traditional qayaq building (listed below). Ask the students to gather information on materials, construction methods, and where materials were found.

List of qayaq materials:

Sinew: porpoise tail, sea lion or seal gut

Qayaq frame: hemlock, spruce, driftwood

Qayaq Cover: Sea lion (typically female) or seal skins

Oil to preserve qayaq cover: Seal oil

Qayaq lashing: Spruce root, sinew, braided dried kelp

Activities: Class I:

- Students will be asked to fill out the pre-observation part of the worksheet.
- Students will then gather to view and investigate the displays of the skin on frame and wood frame of the qayaq.
- When students have completed the pre-observation chart, share the story ‘Skin Boats’ by Sergius Moonin, and the article Kayaks-Qayaq (Alutiiq Traditions on pg. 13) for students to listen and gather new information.

- Students will make observations on materials, construction methods, how and where materials were found.

Assessment:

- Students can explain the materials used to build a traditional qayaq.
- Students correctly completed *Post Qayaq Observation Worksheet*.
- Students can recall and retell the contents of the Skin Boats and Kayak-Qayat articles.

Qayaq Observation Chart (Pre and Post)

Pre Observations:

What materials were used to build the traditional qayaq/kayak? _____

What was used to stitch the qayaq/kayak together? _____

How many seals or sea lion skins were used to cover a qayaq/kayak? _____

Which sea lion skin would they like to use most? Male or Female? Why? _____

Where would the Sugpiaq and Eyak find the correct materials to build a qayaq/kayak? _____

Post Observations:

What materials were used to build the traditional qayaq/kayak? _____

What was used to stitch the qayaq/kayak together? _____

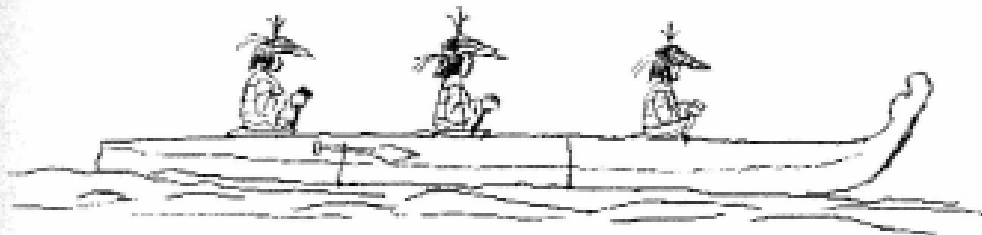
How many seals or sea lion skins were used to cover a qayaq/kayak? _____

Which sea lion skin would they like to use most? Male or Female? Why? _____

Where would the Sugpiaq and Eyak find the correct materials to build a qayaq/kayak? _____

SKIN BOATS

By Sergius Moonin



People used to build their own kayaks. Kayak builders were very skilled carpenters. When they get the wood, they know what kind of tree and how long and straight(it should be) for the kayak. They know how many long strips they need. Then they bend them and lash them together.

There were no nails (back then) so they used a small tree root. They dug it up, split it, soaked it and they tied it up. It was (so) tight you couldn't move it. All kinds of tools (were used). Some tools were hard to handle. Different sizes of knives (were used).

After you have your frame finished, let it set in the sun all day. It has a sharp bow. It is nice and straight.

Then comes the skin. You use exactly nine seal skins to make a fair-sized kayak. I know, 'cause my mom's uncle was a kayak builder. An *angyag* (a big, open, skin boat) takes 36 seal skins. They cover the skin with moss and soak it in a banya (bath house) and pour on the hot water. Next day, scrape off the hair and stretch it outside. Let it dry. Now, you cover the frame and the ladies have to sew it with a whale sinew cut really fine.

When the kayak is finished, let it dry and tighten. Then oil it with seal oil. Then it will last a long time. Next year or two, change the skin.