

**TRADITIONAL TRANSPORTATION: BUILDING A FULL-SIZED DUGOUT CANOE GR: 9-12 (8, 9, 10)**

**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 Harry Recorded in 1965, Yakutat<sup>1</sup>*



Eyak Dugout Canoe, Ray Moss Collection, Alaska Historical Library

**Grade Level:** 9-12 \*this is a big project and geared for more of a semester long class.\*

**Overview:** The Eyak people carved dugout canoes in the Chugach Region. “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”. <http://www.echospace.org/articles/273/sections/665.html>

**Standards:**

<i>AK Cultural:</i>	<i>AK Content Science:</i>	<i>CRCC:</i>
<b>E4:</b> 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.	<b>B2:</b> A student should understand and be able to apply the concepts, models, theories, universal principles, and facts that explain the physical world.	<b>MC1:</b> Different kinds of wood have different qualities and different uses; wood can be obtained from the forest and from driftwood.

**Lesson Goal:** Design carve and steam a traditional dugout canoe using Elder and expert knowledge and local resources from the Chugach Region.

**Lesson Objective(s):** Students will:

- Learn and proficiently use Eyak or Sugt'stun vocabulary included in the lesson.
- Learn the uses and purposes of the dugout canoe.
- Learn about cultural groups who also carved different canoe styles and used the dugout canoe for travel from Alaska.
- Design, carve, steam and test a full sized dugout canoe.

**Vocabulary Words:** Sugt'stun Dialects

English:	Prince William Sound:	Lower Cook Inlet:	<a href="#">Eyak:</a>
Dugout Canoe	pattakun	pattakun	<a href="#">AXAkih</a>
Spruce		Nupak	lis, AdAlis
Carving		Pulluqu	
Adze			<a href="#">XAt'aa</a>
Steam		arillaq	dAq'aagdaatl

**Materials/Resources Needed:**

- Invite an Elder or Recognized Expert from the Region to share their traditional ecological knowledge (TEK) and expertise in dugout canoe carving.
- Carving Tools
- Carving / Work gloves
- First Aid kit
- Materials needed for a full size dugout canoe will depend on the size and plan.
  - Suggested supplies and materials include:
    - cedar or spruce log for length of dugout canoe
    - firewood
    - river or lava rocks
    - large metal tongs for moving hot rocks

Videos:

- Sea Alaska Canoe Project video: <https://vimeo.com/195491983>
- Executive Productions-Seattle: NW Coast Indian Canoe Legacy Project (14 video series) <https://www.youtube.com/playlist?list=PLzm0g19jcPtXiHmv9EiE34LqkBE6LUXjC>

Books:

- *Qayaqs & Canoes- Native Ways of Knowing* by Jan Steinbright; pages 101-119
- *Eyak Legends of the Copper River Delta, Alaska*, pg. 104
- *Eyak History and Language* by Anna Nelson Harry 1965 Yakutat

- *In Honor of Eyak* by Anna Nelson Harry
- *The Eyak Indians of the Copper River Delta, Alaska* by Frederica De Laguna
- Article: (Echo's <http://www.echospace.org/articles/273/sections/665.html>)

### **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.
- View and prepare videos to show in class and for interested community members.
- Collect the materials and resources from the kit.
- The materials and supplies needed for the building of a dugout canoe will depend upon the design and access to materials in the local community.

### **Opening:**

The Eyak people of the Chugach region developed distinct styles of boats used for travel to gather resources, transport people, hunt, and war and to attend celebrations. The dugout canoe has been widely used throughout the world. The Eyak, Tlingit and Pacific Northwest Indians developed the largest most impressive dugout canoes. Some of the largest canoes made from a single red cedar tree would measure 65 feet in length. In culmination you will be carving a full size dugout canoe from local resources.

**\*\*\*Carving can be a dangerous activity; student must wear safety gloves and safety glasses while handling carving tools and carving.\*\*\***

### **Activities:**

#### **Class I:**

1. Introduce Dugout Canoes with student reading and the article from Echo Space ([Echo's http://www.echospace.org/articles/273/sections/665.html](http://www.echospace.org/articles/273/sections/665.html)). This article will give students background knowledge of the Dugout Canoe. Showing the Dugout canoe model and poster board. On a sheet of paper have students prepare 3 questions about dugout canoes; their size, type of material, uses, carving methods, etc. Have students answer their previously made questions from reading the article.
2. Show videos from Sealaska Heritage Project on making a traditional dugout canoe. These videos will describe the process, materials and needs for making a dugout canoe. The making of a dugout canoe is a community effort.
  - a. Video #1: Carver Steve Brown on how to make a dugout canoe <https://vimeo.com/195491983>
  - b. Video #2 Canoe Project #1 <https://vimeo.com/195055670>
  - c. Video #3 Canoe Project #3 <https://vimeo.com/194979915>
3. Students will take notes from each of the readings, and videos to gather knowledge on the carving process, tools used, design, steps and uses of the dugout canoe.
4. Research cultures in the Alaska which uses or used dugout canoes for travel. Write a research paper at least two pages long, double spaced on the design, tools and building process.
5. Scientific Inquiry: Why is steam used to soften and open up a dugout canoe? How do the properties of the wood change to allow this to happen? Are there differences between cedar and spruce?

**Class II:**

1. As a class, develop a list of Elders, community members, businesses (for donations) who could be interested in assisting with the project.
2. Develop a preliminary list of materials and supplies needed for dugout canoe project.
3. Students and community planning members will design dugout canoe based on models, and/or photographs from the region. Regional Elders and/or Experts will share knowledge, and historical photographs.
4. Students will draw and share designs of a dugout canoe.
5. One design will be chosen by the class and Elders to use as a guide during the carving and final decorating stages.
6. Develop a materials list and plan for acquiring materials and obtain the needed materials.
7. Request specific tools from community and local entities.
8. Secure a locked location for carving, tool storage and community classes.

**Class III:**

1. Students and community members will carve and steam the dugout canoe. This activity will take a significant amount of time (possibly semester woodworking class) from students and community members.
2. Document with photos and videos throughout the entire process.
3. Prepare video and photos into one project to share with community and upload to Chugachmiut Heritage Website to share with region.
4. When the class is finished with the dugout canoe, as tradition goes, invite community for a celebration.

**Assessment:**

- Students can recall and proficiently use Eyak or Sugt'stun vocabulary while discussing the dugout canoe.
- Students can explain traditional uses of the dugout canoe.
- Students can explain the process of building a dugout canoe.
- Complete research paper on styles and uses of dugout canoes throughout Alaska.
- Students participated and document all aspects of planning, designing, carving, steaming of the dugout canoe.

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<sup>i</sup> Eyak Legends