**Elder Quote/Belief:** “Growing up, my family lived of the land. We ate seal, clam, duck, salmon, herring, *uuqituks* (gumboots), sea cucumber, halibut, grouse, bear, and black seaweed.”

K. Selanoff

**Grade Level:** 6-8

**Overview:** Ancestors of the Chugach people ate many parts of the animals that were harvested from the land and sea. There was no waste, as it was considered disrespectful to the animal who gave itself to you for survival. In this lesson students will learn about using the lung of the seal as a traditional food source.

**Standards:**

<table>
<thead>
<tr>
<th><strong>AK Cultural:</strong></th>
<th><strong>AK Content Science:</strong></th>
<th><strong>CRCC:</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>D4 - Gather oral and written history and provide an appropriate interpretation of its cultural meaning and significance.</td>
<td>A14a: A student who meets the content standard should understand: a) the interdependence between living things and their environments.</td>
<td>SS 3: Be able to prepare and preserve gathered foods.</td>
</tr>
</tbody>
</table>

**Lesson Goal:** In this lesson students will learn about a traditional dish and the nutritional components that help our ancestors survive for generations.

**Lesson Objective(s):** Students will:
- Learn five Sugt’stun/Eyak vocabulary words.
- Learn about seal lungs being eaten as a traditional food.
- Research about traditional foods of their local area in the Chugach Region.
- Start a Traditional Foods Recipe book for the unit

**Vocabulary Words:**

<table>
<thead>
<tr>
<th>English</th>
<th>Prince William Sound</th>
<th>Lower Cook Inlet</th>
<th>Eyak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seal</td>
<td>Qaigyaq</td>
<td>Qaigyaq</td>
<td>geeLtaaq, keeLtaaq</td>
</tr>
<tr>
<td>Fat</td>
<td>Uquq</td>
<td>Uquq</td>
<td></td>
</tr>
<tr>
<td>Inflate</td>
<td>Suplluku</td>
<td>Rrurluku</td>
<td></td>
</tr>
<tr>
<td>Lung</td>
<td>Qateq</td>
<td>Cupluq</td>
<td>GAdlaalquh</td>
</tr>
<tr>
<td>Lungs</td>
<td>Qateq</td>
<td>Cuplut</td>
<td></td>
</tr>
<tr>
<td>Cook</td>
<td>Egaaluku</td>
<td>Egaaluku</td>
<td>´mahd</td>
</tr>
</tbody>
</table>

Vocabulary Words: Sugt’stun Dialects
The food I liked best was any wild meat, such as ducks, seal, woose aŶd fish.” –Mickey Moonin


Materials/Resources Needed:
Elder/Recognized Expert
Recipe Book format

Websites:
http://www.eyakpeople.com/dictionary

Books:
- Qaqamiiĝux
- Imam Cimiucia Our Changing Sea
- Interview with Elders of the Chugach Region
- Fireweed Cillqaq Life and Times in Port Graham
- Alexandrovsk English Bay In Its Traditional Way
- We Are The Land, We Are The Sea
- Alaska Native Harbor Seal Commission copy of pamphlet (attached, make copies for students to use as a resource)
- Traditional Food Guide, For Alaska Native Cancer Survivors

Teacher Preparation:
- Print attached pictures to share with class.
- Post and display the books and photos in the classroom.
- Invite an Elder/Recognized Expert to talk to the class about traditional foods; ask what kind of traditional foods would the Elder, or Recognized Expert, want to discuss and share.
- Make copies of the attached pamphlet for each student to use as a resource.

Opening: Share pictures of Elder with Seal Lung recipe and pictures of the seal lung being inflated. Remember there were not any stores to buy food for dinner and our ancestors had to be able to provide nutritious meals for their families by utilizing all parts of the animals. We are going to learn about one favorite traditional food and recipe that has been handed down for generations. With the information, we will conduct our own research on traditional foods, collect traditional recipes, interview for stories about traditional foods and compile all into one classroom Traditional Foods Recipe book that will be added to with the other lessons for a final product.

Activities:
Class I:
1. Explain to students that all parts had survival purposes; bones were used for tools, the skin for clothing, to cover kayaks, muscles/cartilages for thread, there was not much wasted, and food was preserved so it could provide through seasons and availability.
2. Even though this dish of stuffed seal lungs sounds strange and possibly unappealing to some, the Chugach people ate almost the entire animal.
3. Introduce Elder/Recognized Expert to the classroom.
4. Ask the following questions to create discussions about traditional foods:
   a. What dish has been in your family from your Ancestors?
   b. Is it still prepared, if so by who, why, and when?
   c. Do you think traditional foods, such as, seal lungs are good to eat? Why/why not?
   d. What type of nutrients do you think are in this dish?
   e. Why do you think traditional foods like seal lungs were eaten?
   f. Would you try this dish?
5. Direct students to take notes while Elder/Recognized Expert is presenting, and that they will be editing their notes so that any notes, quotes can be added to recipe book.
6. After discussion give students time to do some research with the resources available within the heritage kit and online.
7. Review the Sugt’stun/ Eyak vocabulary words.
8. Ask student to interview an Elder/ family member to share a family traditional food recipe.
9. After each student has completed their research, the class will review each other recipes, remind them to make only positive comments on the recipes.
10. Compile the recipes into one traditional recipe book.
11. Have students research the history of the Chugach Native people and their foods:
    a. How were food preserved traditionally?
    b. What foods were gathered?
    c. How did they get their foods?
    d. Were these foods available all year long?
    e. Where were most of the foods gathered from?
    f. When and why did the diet change?
    g. What is your favorite traditional food?
12. Give students time to research and compile their information.

Class II:
1. Once students have completed their research, share their information with others and determine where to place the information, recipes, and Elder quotes into the classroom Traditional Foods recipe book.
2. Allow students to review the recipe book and make comments.
3. Ask students what you have learned from this project, note comments on the board.
4. Share the Traditional Foods Recipe book that has been done so far. Remind them that they will be adding to it with the other lessons and when unit is over, we will share it with others and possibly host a traditional food potluck at the end of the unit.

Assessment:
1. Student can pronounce and use five Sugt’stun/ Eyak vocabulary words from this lesson.
2. Student conducted research about Chugach Region traditional foods
3. Student successfully interviewed and submitted a traditional food from their family.
4. Students compiled their research, interviews, stories, notes and recipes into the classroom Traditional Food Recipe Book.
Seal Lungs
Feona Sawden
Elder from Port Graham, AK

After you remove the lungs and cut off the tubes, find the end of the tube and blow into it until the lung turns bright pink. Don’t be alarmed if there’s blood around your mouth. Pierce lengthwise and push in the hole a piece of seal fat that is an inch think and the length of the lung.

Put in a baking pan and cook for one hour at 350 degrees.
Remove from oven, slice and serve for dinner or snacks.
Desiree Swenning-Simmons, from Nanwalek, demonstrates how to inflate seal lungs “cuplut”, to be stuffed with organ meat and seal fat. When butchering the seal, remember to keep about 4 to 6 inches of the trachea attached to use to inflate the lungs.
Nancy Yeaton inflating seal lungs

Photo of taken by Kari Brookover in Port Graham during Chugachmiut Heritage Retreat 2016

Seal Lungs Recipe from Irene Tanape, Nanwalek

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seal fat</td>
<td>Potatoes, diced up</td>
</tr>
<tr>
<td>Seal liver</td>
<td>Onions, chopped</td>
</tr>
<tr>
<td>Little bit of seal meat</td>
<td></td>
</tr>
</tbody>
</table>

Cut the lungs, where you blow the lungs (trachea tube and the other tubes surrounding the trachea), you make the holes bigger and stuff them, (with above ingredients), using the knife to push (ingredients) in. Cook for one hour at 350. Slice and serve.
**Braided seal intestine “qilugyaq”,** photo courtesy of Aleutian Pribilof Islands Association, Suanne Unger

*“The intestines were weaved, sometimes stuffed with meats and fats into sausage.”*
- Tabios, Derenty

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1 (2007). A Lesson Learned. In *We are the land, we are the sea: stories of subsistence from the people of Chenega* (pp. 95). Anchorage, AK: Chenega Heritage, INC.

Elder Quote/Belief:
“I think living off the land is healthier for you because you’re eating more naturally out there. I have seen how bad modern food is for the body. Nowadays, there are increased rates of diabetes and obesity, and the cancer and heart attack rates are way up. Even the kids are not healthy. It’s a fact. It’s just the way it is. You can’t stop it. I eat fast food and preserved foods, too, so I can’t tell others it’s bad. But I’d rather have roasted seal over an open fire with some tea, or dried fish dipped in seal oil. I really like boiled fish heads. You can boil them and eat everything except the gills and bones, or you can eat the part on top of the fish head, the skin, and part of the nose where the bone is soft cartilage. That’s really good. And you can eat the cheeks.”
Paul Timmy Selanoff

Grade Level: 6-8

Overview: To learn about the nutritional value of traditional foods such as; fish, seal, intertidal foods, sea mammals and seal oil.

Standards:

<table>
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<td>A 12: Students will be able to distinguish the patterns of similarity and differences in the living world in order to understand the diversity of life and understand the theories that describe the importance of diversity for species and ecosystems</td>
<td>SS 2: Students should be able to prepare subsistence foods such as fish</td>
</tr>
</tbody>
</table>

Lesson Goal: To research the nutritional value of traditional foods and compare to nutritional value of store products and fast foods.

Lesson Objective(s): Students will:
- Learn Sug’t’sun/ Eyak vocabulary words
- Research the nutritional value and compare between traditional foods, store bought products and fast food.
- Create a PowerPoint presentation about traditional foods nutritional value.

Vocabulary Words:

<table>
<thead>
<tr>
<th>English:</th>
<th>Sug’t’sun Dialects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seal oil</td>
<td>Prince William Sound: Uguq  Lower Cook Inlet: Uquq  Eyak:</td>
</tr>
<tr>
<td>Meat</td>
<td></td>
</tr>
<tr>
<td>Fish (general)</td>
<td>Amartuq  Iqalluk  Te’ya</td>
</tr>
</tbody>
</table>
Plants                Naucestaaret

All berries          Caku’ciqinnat alagnat

**Materials/Resources Needed:**
Elder/Recognized Expert
Computers, iPad will be needed
Paper plates and eating utensils

**Websites:**
http://www.fnha.ca/Documents/Traditional_Food_Fact_Sheets.pdf

**Books:**
Qaqamiiĝux
ANTHC Traditional Food Guide FOR THE NATIVE PEOPLE

**Teacher Preparation:**

**Class I**
- Contact Elder/Recognized Expert from within community, invite him/her to the classroom and share about traditional foods.
- Before the Elder or Recognized Expert arrives, please review with all of the students, ways to show respect for the Elder during their visit
- Ask guest if willing to share a favorite recipe with the class.
- Review questions with Elder/Recognized Expert
- Review Sugt’stun vocabulary words
- Review websites
- Make sure there are enough computers/iPad’s for each student
- Have paper plates and eating utensils for the next class

**Class II**
- Create an area for traditional foods to be placed
- Allow time for students to sample traditional foods.
- Use the ‘Healing Foods,” as an example of nutritional facts to document the nutritional value of their favorite store-bought and traditional foods, whether it is a type of oil, meat, fish, plant or berries.
- Have students share a favorite recipe to add to their power point presentation
- Display the nutritional charts students created
- Make a Venn diagram on whiteboard
- Discuss the similarities of favorite and traditional foods
- Place all their documents into their recipe booklet and onto PowerPoint presentation.

**Opening:** Do you know the nutritional value of the food you eat? Do you think the food we eat today is nutritionally better than traditional foods our ancestors ate? Let us delve into the traditional food versus the food we like today and compare which has more nutrients.
Activities:

Class I
1. Review Sugt’s tun or Eyak words with students or have Elder/Recognized Expert review with the class.
2. Introduce Elder/Recognized Expert to the classroom.
3. Instruct students to take notes as you ask the suggested questions;
   - What kind of traditional foods have you eaten?
     - How was it prepared?
   - Did you eat plants?
     - What kind and how were they prepared?
     - How about berries, what kind and how were they prepared?
   - Where did you get all your traditional foods from?
     - How did you get to those areas?
   - Do you still gather traditional foods?
4. Give an opportunity for the students to ask any questions they have for the Elder/Recognized Expert.
5. Have students place their notes in their booklets.
6. Explain to the students for the next class’s assignment they are to go home gather some of their favorite traditional foods to bring to the next class and bring a recipe of their favorite dish.
7. Inform students there will be a potluck and to please bring in their favorite traditional food to share with each other during the next class.

Class II
1. Select an area where students can place their traditional foods
2. Allow time for sampling the various dishes brought in to the class.
3. Let students know they will be given time to research about nutritional facts of the traditional foods from their home/community and some of those the Elder/Recognized Expert shared from the previous class.
4. Have students create a nutritional chart such as the one from the ‘Healing Foods,’ with their information they found about their favorite foods and the traditional foods.
5. After completing this have students insert their favorite recipe and their nutritional chart into their booklets.

Class III
1. Display Venn diagram on whiteboard and have students draw this diagram on lined paper.
2. Have students place traditional foods on one side and their favorite foods on the other side.
3. Talk about some of the similarities of these foods and insert them into the overlapping center of the diagram. Do several together as a class and have the students work on the rest individually or help one another.
4. Have students place their Venn diagram on their PowerPoint to share as part of their presentation.
5. Give students an opportunity to present their PowerPoints to the class.
Assessment:

- Student will correctly pronounce six vocabulary words in Sugu’t stun or Eyak.
- Student created a nutritional chart of favorite and traditional foods.
- Student was able to categorize and analyze favorite and traditional foods with a Venn diagram.

“After you shoot a seal you cut it up and clean out the rib cage. You ate the liver, the heart, the kidneys, the intestines. The best part was the breast. You would take the kidney, the liver, and the breast, and everyone would take every bit, trim the skin, cook it, put it on the boiler.”

-A. Selanoff
SAFETY

As with any food, it is important to keep food safety in mind when preparing and eating traditional foods.

From 2009 to 2013, 23 cases of botulism were reported to the Alaska Division of Public Health, Section of Epidemiology, of these 22 were foodborne. All of these cases were associated with eating traditional Alaska Native foods. Foods identified as sources for these outbreaks include aged fish, fish heads, beaver tail and seal and fish oil. This does not include the most recent and one of the largest outbreaks in 2014, which occurred in Southwest Alaska.

What is Botulism?

BOTULISM is caused by ingestion of a toxin produced by the bacteria C. botulinum. The disease is characterized by both neurological and gastrointestinal symptoms. Patients often have nausea or vomiting accompanied by difficulty swallowing, double vision, dry mouth, dizziness and poor balance.

Preventing Botulism in Seal Oil

It is important to cut all of the seal meat off of the blubber you are going to render. Pure fat is not a place where bacteria easily grow. After the fat has rendered, the oil should be boiled, poured into sterilized jars, and stored in containers that can be closed tightly. The oil should be kept in the freezer or refrigerator (Unger 2014).

Even with these precautions, food can look, smell, and taste perfectly normal, but still be contaminated. If you suspect botulism in your oil, throw it out.

QUYANNA

Special thank you to our seal hunters for continuing to teach the youth the proper protocols and ways to respect the seal after a hunt. To our elders, thank you for your continued support and guidance.

To those who helped develop this brochure:

Melissa Chilppach, NMS Regional Healthcare Dietitian
Robby Randich, Marketing Consultant
Seth Anderson, 2014-2015 UAA Dietetics Intern
Jennifer Burns, UAA Professor of Biology
Amy Bishoff, UAA Postdoctoral Researcher

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References:


Alaska Native Harbor Seal Commission

207 E Northern Lights Blvd, Ste 206
Anchorage, AK 99503

Phone: (907) 345-0555
Fax: (907) 345-0566
jimbryant@alaskasealcommission.org

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Traditional Foods and Recipes Page 6

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**SEAL OIL & MEAT**

Seal is a traditional staple food of the Alaska Native Peoples. It is a reliable food which can be harvested year-round. All parts of the seal are utilized for different purposes.

The practices of hunting and preserving these foods continues the passage of culture from one generation to the next. These practices aid in keeping the Alaska Native Peoples fit and active.

“Fresh out of the water... when you kill a seal... then you throw it in a pot on the beach... That's the best time to eat it.” – Moses Dinko, Atka

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**RECIPE**

**Boiled Seal with Vegetables**

**Ingredients**
- 5 lbs. seal meat
- 1 large yellow onion
- 3 lbs. potatoes
- 3 small turnips
- 1 head cabbage
- Petruska/wild parsley
- Salt & pepper

(Recipe adopted from George Kudrin, 2008.)

1. Place seal meat in a 2-3 gal. pot. Fill 3/4 of the way full and bring to a boil.
2. Chop onions, add to boiling pot.
3. Bring to a simmer.
4. In last 30 minutes: add vegetables, salt and pepper to taste.
5. Serve over rice.

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**NUTRITIONAL CONTENT**

**Raw Harbor Seal Meat**

<table>
<thead>
<tr>
<th>Nutrition Facts</th>
<th>Serving size 3 oz. (85g)</th>
<th>Amount per serving</th>
<th>Calories 220</th>
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<tbody>
<tr>
<td><strong>Amount % Daily Value</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Total Fat 1.5g</td>
<td>2%</td>
<td>Saturated Fat 0.1g</td>
<td>1%</td>
</tr>
<tr>
<td>Trans Fat 0g</td>
<td>0%</td>
<td>Cholesterol 10mg</td>
<td>1%</td>
</tr>
<tr>
<td>Sodium 43mg</td>
<td>2%</td>
<td>Total Carbohydrate 1g</td>
<td>0%</td>
</tr>
<tr>
<td>Dietary Fiber 0g</td>
<td>0%</td>
<td>Total Sugars 0g</td>
<td>0%</td>
</tr>
<tr>
<td>Total Sugars 0g</td>
<td>0%</td>
<td>Includes 0g Added Sugars</td>
<td>0%</td>
</tr>
<tr>
<td>Protein 3g</td>
<td>0%</td>
<td>Vitamin D 0mg</td>
<td>0%</td>
</tr>
<tr>
<td>Calcium 0mg</td>
<td>0%</td>
<td>Iron 0mg</td>
<td>0%</td>
</tr>
<tr>
<td>Phosphorus 0mg</td>
<td>0%</td>
<td>Vitamin A 0IU</td>
<td>0%</td>
</tr>
<tr>
<td>Vitamin A 0IU</td>
<td>0%</td>
<td>Vitamin C 0mg</td>
<td>0%</td>
</tr>
</tbody>
</table>

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**Dried Harbor Seal Meat**

<table>
<thead>
<tr>
<th>Nutrition Facts</th>
<th>Serving size 3 oz. (85g)</th>
<th>Amount per serving</th>
<th>Calories 200</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Amount % Daily Value</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Fat 1.5g</td>
<td>2%</td>
<td>Saturated Fat 0.1g</td>
<td>1%</td>
</tr>
<tr>
<td>Trans Fat 0g</td>
<td>0%</td>
<td>Cholesterol 10mg</td>
<td>1%</td>
</tr>
<tr>
<td>Sodium 43mg</td>
<td>2%</td>
<td>Total Carbohydrate 1g</td>
<td>0%</td>
</tr>
<tr>
<td>Dietary Fiber 0g</td>
<td>0%</td>
<td>Total Sugars 0g</td>
<td>0%</td>
</tr>
<tr>
<td>Total Sugars 0g</td>
<td>0%</td>
<td>Includes 0g Added Sugars</td>
<td>0%</td>
</tr>
<tr>
<td>Protein 3g</td>
<td>0%</td>
<td>Vitamin D 0mg</td>
<td>0%</td>
</tr>
<tr>
<td>Calcium 0mg</td>
<td>0%</td>
<td>Iron 0mg</td>
<td>0%</td>
</tr>
<tr>
<td>Phosphorus 0mg</td>
<td>0%</td>
<td>Vitamin A 0IU</td>
<td>0%</td>
</tr>
<tr>
<td>Vitamin A 0IU</td>
<td>0%</td>
<td>Vitamin C 0mg</td>
<td>0%</td>
</tr>
</tbody>
</table>

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**THE BENEFITS**

Seal meat is an excellent source of iron. In fact, 3 oz of harbor seal meat has 14mg of iron, which is 80% of the Daily Value. You would have to eat 25 oz of beef pot roast, 68 chicken nuggets, or 57 oz of canned luncheon meat (pork/ham) to get the same amount of iron.

Iron carries oxygen from the lungs throughout the body. Plus it is part of several enzymes that help digest our food. Many parts of our bodies are affected if we don’t consume enough.

In addition, seal meat is a good source of protein, vitamins A and D, and minerals. Plus it is low in sodium.

Seal oil is rich in omega-3 fatty acids, which may decrease diabetes, hypertension, cardiovascular diseases, arthritis, and autoimmune diseases. An added bonus is that omega-3 fatty acids may improve mental health.

While the amount of omega-3 fatty acid is unknown for harbor seals, one tablespoon of bearded seal oil has 4000mg of omega-3 fatty acids and spotted seals have almost half as much! Buttery, garumne, vegetable (corn) oil, vegetable shortening, and canola oil don't even compare to seal oil!
Selanoff, Paul Timmy. (2007). The Old Ways. In *We are the land, we are the sea: stories of subsistence from the people of Chenega* (pp. 106). Anchorage, AK: Chenega Heritage, INC.

Selanoff, A. (2007). A Lesson Learned. In *We are the land, we are the sea: stories of subsistence from the people of Chenega* (pp. 94). Anchorage, AK: Chenega Heritage, INC.
Elder Quote/Belief: “Different species of salmon were preserved in different ways depending on the time of the summer season they were taken and whether they were taken fresh or salt water. Most salmon were available from May until September.” Sandra Wassilie and Glen Oberg

Grade Level: 6-8

Overview:
Gathering food has been a very important part of survival, past and present. Salmon provides extra food for winter use; whether it is fresh from the ocean, the river system, spawning or spawned out salmon. Depending upon the processes, various techniques for preparing and preserving salmon will create distinctive flavors.

Standards:

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<td>SS 2: Students should be able to prepare subsistence foods such as fish</td>
</tr>
</tbody>
</table>

Lesson Goal: Students will learn about salmon species.

Lesson Objective(s): Students will:
- Identify the five salmon species, life cycle, birthing grounds, and salmon recipes.
- Learn Sugt’stun/Eyak words for each salmon type.
- Create a power point and recipe book of lesson assignments

Vocabulary Words:

<table>
<thead>
<tr>
<th>English:</th>
<th>Sugt’stun Dialects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish (general term for all fish)</td>
<td>Iqalluk</td>
</tr>
<tr>
<td>Alaska Chum/Dog salmon</td>
<td>Alingartuliq</td>
</tr>
<tr>
<td>Alaska King/Chinook Salmon</td>
<td>Iqaatluxpak</td>
</tr>
<tr>
<td>Alaska Coho/ Silver salmon</td>
<td>Chaayaq</td>
</tr>
<tr>
<td>Alaska Sockeye/Red salmon</td>
<td>Usmaq</td>
</tr>
<tr>
<td>Alaska Pink/Humpy Salmon</td>
<td>Nikliq</td>
</tr>
</tbody>
</table>

Traditional Foods and Recipes Page 1
**Materials/Resources Needed:**
Elder/Recognized Expert
Computers for students to research
A sample letter to send home is attached. Please feel free to adapt to fit needs for school.

**Website:**
http://www.eyakpeople.com/dictionary (for the pronunciation of the salmon Eyak vocabulary)

**Books:**
*Looking Back on Subsistence, Interviews with Elders of the Chugach Region*
*Salmon Buyer’s Guide* booklet (reference to the five species of salmon)
*Qaqamiigux*

**Teacher Preparation:**

**Class I**
- Review Sugt’stun/ Eyak vocabulary words, ask students to use the vocabulary words in their presentations
- Invite local Elder/Recognized Expert (i.e. Salmon Enhancement employees, Alaska Department Fish and Game, etc.) to share what he/she should present to the classroom about salmon:
  - What types of salmon species are there? What kinds of salmon do you put away, where do you get your salmon, why there, and stories of fishing for salmon?
- Ask the students to take notes and ask questions for clarification for additional information they can use for their presentation.
- Create and assign the students into four groups. Write the following on the board for each group to use as a guiding tool in their research and inform them of the criteria to be used as they create their presentation of their findings:
  - Group one will research the five species of salmon and which ones are in the local area; photos, what are some of characteristic features.
  - Group two will research the salmon life cycle.
  - Group three will research why salmon return to their birthing grounds; what helps the fish to return to their natal stream, describing habitat area, photos.
  - Group four will survey the class and interview Elders/family members on their preference of salmon, why do they prefer it, and what is their favorite traditional salmon dish and who prepares it.
- Have students bring in a fish recipe and who makes it.

**Class II**
- Students create a ‘Traditional Recipe book’
- Allow student’s time to research online, traditional cookbooks, pamphlets, ask family and community members to gather information on assigned salmon topic.
- Inform students they will compile information into a presentation and will share final product with class upon completion.
Class III

• Presentations

Opening: Chugach Region communities are located on the coast and the people often rely on salmon for their livelihood and subsistence lifestyle. In this lesson we are going to investigate salmon species.

Activities:

Class I:

1. Introduce vocabulary and have students choose their choice of vocabulary they will use for the salmon species.
2. Invite and introduce Elder/Recognized Expert to the class.
3. Make sure to give ample time for questions and discussion.
4. Introduce the project and put students into groups.
5. Instruct students they will have two class periods to complete their project.
6. Give each student a letter to take home to share with family members about this project.
7. Have students’ document information from family/community members.
8. Bring in favorite fish recipe

Class II

1. Allow students to research and create a power point.
2. Remind students that the information they have collected be put into a ‘Recipe booklet.’
3. Permit student’s time to research their topic as a group and finalize their projects for presentations.

Class III

1. Groups present to the classroom

Assessment

• Student able to list the five species of salmon and which are found locally.
• Student able to describe life cycle of salmon and why and how they return to birthing grounds.
• Students created a presentation and a recipe book that will be used throughout this unit of “Traditional Foods and Recipes”.

“They have two amazing systems they use to go out to sea and return. First is imprinting on their home waters which gets finalized when they hit sea water. This is their olfactory nerves (detailed smell), which locks in on smell and taste of fresh water they came from. Then they have magnetic sense like homing pigeons for long distance navigation. This sense brings them back close to home stream at which time the smell and taste (olfactory) kicks in for the final stretch home…”

Paul McCollum
(Use to work with Nanwalek Enhancement Project)
Natural Resources Director,
Port Gamble S’Klallam Tribe
In regards to the salmon returning to their birthing streams.
“According to Portlock “they never practice the method of smoking their provisions, and, for want of salt, have no other way of curing their winter stock than drying it in the sun; their fresh fish they generally roast, by running some sticks through to spread it, and clapping it up before the fire” Nowadays the smoking of fish is general custom. Silver and humpback salmon are dried and smoked so that it becomes a little scorched outside; then they are cut in strips two fingers wide and put up in seal oil for the sinter. Salmon may also be prepared in the following manner: the fish is split and placed in a wooden container hollowed out of a log, and then covered with seal oil; after that, heated rocks are dropped in to cook the mixture.”

Dear Parents,

Our class is starting a new unit, Traditional Foods and Recipes. We will be sharing about traditional foods that have been in your family.

We will start by having a discussion in class with an Elder/Recognized Expert and I, sharing about salmon species. Your child will be in a group to create a presentation and booklet on:

- Group A - Research the five species of salmon and which ones are in the local area; photos, what are some of characteristic features.
- Group B - Research the life cycle; diagram of life cycle labeling the various stages of salmon.
- Group C - Research why salmon return to their birthing grounds; describing habitat area, photos.
- Group D - Survey the class, Elders, family members for their preference of salmon, why and to share a favorite traditional family recipe for salmon.

At home you can add to your child’s understanding and interest by discussing the various salmon that you and your family have fished or will be fishing for. You can spend time talking about a favorite dish that you prepare for the family, if it is a dish that has been a generational pass down.

I have asked students to interview an Elder/Recognized expert, a family member to ask the following questions about their traditional/favorite dish:

1. What is your salmon?
2. Why is this salmon a favorite?
3. Where do you fish for your salmon and why?
4. Ask your child about their favorite recipe for salmon.

Please assist your child as she/he gathers information/pictures or a short video clip to share with students.

If you have any questions please call or feel free to visit us in the classroom.

Sincerely,
What is your favorite fish recipe
Elder Quote/Belief: “My job was to run and grab the duck as soon as Phillip shot it, after it fell to the ground. After I retrieved the third duck, I hollered, “It’s still alive!” Phillip yelled back, “Wring its neck!” So I stood there wringing the duck’s neck like you would wring out a dish rag. Phillip came over and said, “No, no, you don’t actually wring the duck’s neck. You take the duck’s head and spin it around and around until it’s dead.” We had a good laugh about it when we went home.”

Grade Level: 6-8

Overview: Waterfowl added more protein to the diet; it was boiled, roasted, dried and even salted. Gathering eggs was done in the spring, which is still practiced presently. The skin some of which was used as part of clothing, bones provided tools and even making beads, the plumage for mattresses, decorative additions to clothing and head dresses.

Standards:

<table>
<thead>
<tr>
<th>AK Cultural:</th>
<th>AK Content:</th>
<th>CRCC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 3: Acquire and pass on the traditions of their community through oral and written history.</td>
<td>A 12: Students will be able to distinguish the patterns of similarity and differences in the living world in order to understand the diversity of life and understand the theories that describe the importance of diversity for species and ecosystems</td>
<td>SS 3: Students should have knowledge of stories about subsistence stories</td>
</tr>
</tbody>
</table>

Lesson Goal: To learn about the types of ducks that is available in the local area.

Lesson Objective(s):

- Learn Sug’t’stun/Eyak dialect for birds
- Research online and resources provided in the heritage kit about traditional uses of birds/ducks
- Research hunting regulations of birds and ducks
- Share a traditional recipe
- Create an electronic presentation

Vocabulary Words: Sug’t’stun Dialects

<table>
<thead>
<tr>
<th>English</th>
<th>PWS:</th>
<th>Lower Cook Inlet:</th>
<th>Eyak:</th>
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<tbody>
<tr>
<td>Duck</td>
<td>Saqulek</td>
<td>Saqulek</td>
<td></td>
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<tr>
<td>Goose</td>
<td>Temngiaq</td>
<td>Temngiaq</td>
<td></td>
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<tr>
<td>Loon</td>
<td>Tuullek</td>
<td>Tuullek</td>
<td></td>
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<tr>
<td>Mallard</td>
<td>Ngillqitaq</td>
<td>Ngillqitaq</td>
<td></td>
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<tr>
<td>Black Saltwater Duck</td>
<td>Cuuwarnaq</td>
<td>Cuuwarnaq</td>
<td></td>
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<tr>
<td>------------------------</td>
<td>-----------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td>Puffin</td>
<td>Ngaqngaq</td>
<td>Ngaqngaq</td>
<td></td>
</tr>
<tr>
<td>Blue-bill duck</td>
<td>Egtuk</td>
<td>Egtuk</td>
<td></td>
</tr>
<tr>
<td>Grouse</td>
<td>Egtugtuliq</td>
<td>Egtugtuliq</td>
<td></td>
</tr>
<tr>
<td>Seagull</td>
<td>Maruyaq</td>
<td>Naruyaq</td>
<td></td>
</tr>
<tr>
<td>Bird egg</td>
<td>Peksuq</td>
<td>Peksuq</td>
<td></td>
</tr>
<tr>
<td>Feather</td>
<td>Culuk</td>
<td>Culuk</td>
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</table>

**Materials/Resources Needed:**
Elder/Recognized Expert

**Books:**
- *Looking Back on Subsistence*
- *We are the Land, We are the Sea*
- *Qaamiiqix*
- *Traditional Food Guide*

**Websites:**

**Teacher Preparation:**
- Contact Elder/Recognized Expert to share knowledge of ducks/bird from local area
- Review vocabulary words
- Record, take pictures during students talking to Elder/Recognized Expert, share this with students for them to add to their electronic presentation
- Review books, online information
- Divide students into groups to research the listed ducks
- Have students interview a family member, community member or Elder who knows about duck hunting
- Create a list with students on questions for the interview
- Share a traditional recipe
The Blind Boy and the Loon
(Makari)
There was a blind boy who went up to a lake and heard a loon calling. He asked the loon to come to him and cure his eyes. “I wish you would come and cure my eyes,” I can hear you, but I cannot see you.” The loon called again right close by where the boy stood. It said: “Crawl on back, hold me tight and don’t let go. I am going to dive with you.” The loon went down and swam around the lake five times before he came up. When he came up, the boy could see everything around. Then the boy said: “Wait for me here till I come back,” so he could give him something as a remembrance. The boy returned from his house. He brought an apron made of white Dentalium shells. The boy gave it to the loon, “so you can remember me.” The loon said: “Wait for me till I come up.” Then he dived and when he came up in front of the boy he had the apron on. That is the reason why loons have white breasts.

Opening:
What do you know about ducks? Research what kind of ducks/birds there are in your local area.

Activities:

Class I:
1. Review Sg’t st’n/Eyak vocabulary words
2. Introduce Elder/Recognized Expert to the classroom
   - Did you hunt for birds or ducks?
   - What kind?
   - Where did you hunt for them?
   - How did you use the duck or bird?
   - Were there parts used other than eating, if so what and why?
   - Did you age your duck before you ate it and why?
   - When is the best time to hunt?
   - What is your favorite duck or bird to hunt for?
   - Are there hunting regulations when hunting for ducks?
   - Do you gather eggs, if so when and what kind?
   - Can you share a traditional recipe?
3. After the Elder/Recognized Expert sharing of traditional ecological knowledge, create groups with students and explain they will be gathering information by interviewing a family member, community member or an Elder in their community about ducks or birds that are hunted for consuming.
4. Have the class help come up with interviewing questions, have students record the questions.
5. Let them come up with a guide to use for interviewing to enhance their electronic presentation.

Class II:
1. Find the eggs that go with the ducks, find hunting regulations that apply to the duck/bird they are researching.
2. Encourage students to get creative, maybe a song, maybe a dance, and or poems as part of their electronic presentation.
3. Ask the students to apply the Sugt’s tun/Eyak vocabulary to their presentations.

Class III:
1. Have groups present their presentation

Assessment
- Student applied Sugt’s tun/ Eyak words to their presentation.
- Student can explain the bird hunting regulations they researched online and the resources they have found in the kit for their presentation.
- Student provided a traditional bird recipe(s).

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i (2007). The Old Ways. In We are the land, we are the sea: stories of subsistence from the people of Chenega (pp. 152). Anchorage, AK: Chenega Heritage, INC.

Elder Quote/Belief: “During the summer outing we would take a whole quarter of sea lion and find nice clean gravel beach and bury it down in about a foot of gravel and build a fire over it and it was covered with hide. Then everyone would gather around with a knife and we would have a feast, other meat was also cooked that way.” – Bobby Stamp

Grade Level: 6-8

Overview: Traditional foods have been in the diets of the Chugach people since time immemorial. Today, the Chugach people still hunt, gather, preserve and store their traditional foods with modern equipment versus; caches, root cellars, dried seal stomachs and barrels. Learning about the TEK regarding resources the land and sea provided is a part of history that is continued to be passed down and practiced today to enhance our diet with the food sources purchased from the grocery stores.

Standards:

<table>
<thead>
<tr>
<th>AK Cultural:</th>
<th>AK Content Science:</th>
<th>CRCC:</th>
</tr>
</thead>
<tbody>
<tr>
<td>D4. Gather oral and written history and provide and appropriate interpretation of its cultural meaning and significance</td>
<td>F-3 Develop an understanding of the importance of recording and validating cultural knowledge</td>
<td>CE-9 Students should have respect and appreciation for their own culture as well as the cultures of others</td>
</tr>
</tbody>
</table>

Lesson Goal: Students will gather all the material they have compiled thus far into the final product of a recipe booklet with family’s traditional recipes and those recipes that are adapted and enjoyed today. These recipe booklets will also include photos and biographies of those family members who are sharing their TEK and expertise.

Lesson Objective(s): Students will:
- Apply the Sugt’stun dialects they have learned to their final documents for the recipe booklet.
- Reflect, compile and create a recipe book along with an electronic presentation of traditional foods and recipes

<table>
<thead>
<tr>
<th>Vocabulary Words:</th>
<th>Sugt’stun Dialects</th>
</tr>
</thead>
<tbody>
<tr>
<td>English: Cooking pot</td>
<td>Prince William Sound: Cukunaq</td>
</tr>
<tr>
<td>Pot (cooking), basket</td>
<td>Lower Cook Inlet: Ts’Ala’jiiniiwAG, qAdl</td>
</tr>
<tr>
<td>Seal</td>
<td>Uya’Xk’udAqa’</td>
</tr>
<tr>
<td>Fat</td>
<td>Uquq</td>
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<tr>
<td></td>
<td>Eyak:</td>
</tr>
<tr>
<td></td>
<td>Ts’Ala’jiiniiwAG, qAdl</td>
</tr>
<tr>
<td></td>
<td>Uya’Xk’udAqa’</td>
</tr>
<tr>
<td></td>
<td>geeLtaaq, keeLtaaq</td>
</tr>
<tr>
<td>Fish</td>
<td>Iqalluk</td>
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<td>-----------------</td>
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</tr>
<tr>
<td>Plants</td>
<td>Naucestaa</td>
</tr>
<tr>
<td>Wooden barrel</td>
<td>Puckaq</td>
</tr>
<tr>
<td>Chitons</td>
<td>Urriitat</td>
</tr>
<tr>
<td>Lung</td>
<td>Cupluq</td>
</tr>
<tr>
<td>Braided seal intestine</td>
<td>Qilugyaq</td>
</tr>
<tr>
<td>Too mix/whip it up</td>
<td>Akutaq</td>
</tr>
</tbody>
</table>

**Materials/Resources Needed:**
Elder/Recognized Expert
iPad, smartphone, computer for video interview and PowerPoint presentations

**Books:**
*Looking Back on Subsistence*
*We are the Land, We are the Sea*
*Chenega, As I Saw it- It’s people*
*Qaqamiiĝux*
*Imam Cimiucia Our Changing Sea*

**Websites:**
[www.wildalaskaseafood.com](http://www.wildalaskaseafood.com)

**Booklets:**
Salmon Buyer’s Guide
Alaska Seafood Species Quick Reference Guide or review on [www.wildalaskaseafood.com](http://www.wildalaskaseafood.com)
The Halibut Book by Chenega Bay School
The Salmon Book
Neq’rkat- The Wild foods Cookbook
Fireweed Cillqaq *Life and Times in Port Graham*
Alexandrovsk English Bay in Its Traditional Way

**Teacher Preparation:**
- Review Sught’un dialects and/or Eyak vocabulary words.
- Review resource books, booklets and websites and display resources around classroom.
- Invite Elder or Recognized expert as guest speaker and before visit, review with the students the way we respect our Elders/ guests.
Opening:
Throughout this kit, you have been learning about the traditional ecological knowledge (TEK) from Elders regarding resources that the land and sea provided. Learning about the hunting, gathering, prepping, preserving and cooking is a vital part of our history. This traditional way is continued to be practiced and passed down through generations. These traditional foods enhance our diet with the food sources that we purchased from the grocery stores today.

For these lessons, I want you to go through resources in the kit, past interviews from family/community members on various ways to preserve and prepare traditional foods, stories, beliefs and nutritional value surrounding the traditional foods and photos or videos that showcase traditional foods and recipes. We will add as needed then edit and finish the classroom compilation of Traditional Foods Recipe book that we will be proud to share with others during the culminating potluck for guests.

Activities:
Class I:
1. Review with the students regarding open-ended questions to entice more information from the Elder/Recognized Expert:
   a. Do you have any family traditional recipes that you can share?
   b. Who usually made the traditional dish?
   c. Is there a certain type of traditional food that is served at a specific time of the year?
   d. Can you tell me what nutrients are in this dish?
   e. Is there something about traditional foods and recipes that we may not have asked you, but you want to share?
2. Review resources already have and allow students enough time to go through their interviews, take photos of those who shared these recipes, print off the photographs, recipes, nutrition charts and historical pieces they want to add to their presentations and classroom recipe book.
3. Take pictures and/or videos that can be shared with students to put them into their presentations or recipe book.
4. Remind students they need to add Sugt’s’tun or Eyak language to their presentation and the recipe book.
5. Students present their electronic presentation.
6. Allow students time to compile their presentations, recipes, pictures, Sugt’s’tun or Eyak words, stories, beliefs into the classroom recipe book.
7. Remind the students the next class they will be hosting a traditional foods potluck and ask them to bring in a traditional foods dish to share. (It is also a good idea to ask community members if they would be willing to share a dish.)

Class II:
1. Students host a traditional foods potluck and present their completed work to the guests.

Assessment:
- Student created electronic presentations and a classroom traditional food recipe book that has inserted all the information culminated from prior classes.
- Student correctly applied Sugt’s’tun dialect and/or Eyak language to products.
Wooden cooking bowl, Cukunaq

Photo taken by Kari Brookover, located in Cordova at the Ilanka Center.

To use this traditional bowl, they would fill with water and then drop hot rocks into it to cook.

Beach lovage, Pitruuskaaq

Photo taken by Nancy Yeaton

Beach lovage used for salads, chopped up to add to fish, chowders, store in seal oil for winter time eating.
Goose tongues are used as a side for vegetables, added to soups or whatever one would prefer to use as a green vegetable.

Fresh seal fat can be sliced, seasoned and eaten with dry fish. Most that consume seal fat is done by making seal oil. Meat is cooked; making soup, roasting, frying and baking.
“The intestines were weaved, sometimes stuffed with meats and fats into a sausage.” –Derenty Tabios

Braided Seal Guts

Seal guts  Seal fat
Baking soda  Vinegar

Soak the seal guts in baking soda and vinegar for a while. Then cut the guts every three inches. Milk the guts and clean them out real well. Cut a continuous strip of seal fat. Then take the guts and the fat and braid them together. Wrap two figure eights around your thumb and fore finger, then pull the bottom over the top and drop it in the middle. Continue until all the guts are braided. It should be about four feet long when you are done braiding. Boil the seal guts. After they are done boiling take them out of the pot and put them in a baking dish. Bake until done. Cut up the baked seal guts and serve immediately.
Nancy Yeaton inflating seal lungs for demonstration
Photo by Kari Brookover

**Seal Lungs**
Recipe from Nancy Yeaton, Nanwalek

- To prepare the lungs you’ll need: One pair of seal lungs with a windpipe about 6” long
- Blow into the windpipe until the lungs expand to 3x’s their size
- On one end, cut a hole into the lung big enough to fit a blade of a fillet knife, moving the knife back and forth inside the lung cut without puncturing the walls of the lung.
- Do the same to the other lung

Mix together in a bowl:
- Quarter a potatoe and thinly slice
- Add chopped up fat, liver, heart and kidney (use as much as you want)
- Chopped onion and garlic

Stuff the lungs with the ingredients.
Bake for an hour and half and up to a couple of hours.
When done let it rest for a bit, slice and serve with rice.
**Bidarkis**  Photo from Iman Cimiucia Our Changing Sea
Fish heads-iqallum nasqua

Fish Head Soup

- 4 Fish heads
- 2 carrots
- 2 potatoes
- 1 onion
- 1 cup macaroni
- 1 can tomato sauce

Cut the fish heads and add to a large pot. Roughly chop the onion, carrots and potatoes. Add to the pot. Boil everything for twenty minutes. Add the macaroni and tomato sauce. Cook until the pasta is done.
Akutuk

Mashed potatoes, fermented fish eggs, seal oil and sprinkled with Alpine berries. This dish is more of an influence of the Russians by adding potatoes rather than the traditional which was contents from dried seal stomach; seal oil, berries, and fish eggs, which was whipped by using ones hand to make the ingredients fluffy, thus the Sug’t stun word “Akutuk” to mix or whip it.

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ii Tabios, Derenty. (2000). Looking Back on Subsistence, Interview with Elders of the Chugach Region, A Resource Book for Teachers and Students. (pp.16)

iii (2007) In We are the land, we are the sea: stories of subsistence from the people of Chenega (pp. 145). Anchorage, AK: Chenega Heritage, INC.