UNIT 1
MARINE MAMMALS
Unangam Tunuu

To hear how these words are pronounced in *Unangam tunuu*, go to the Aleutian Pribilof Islands Association, Inc. website (www.apiai.org). Audio recordings can be found under the Head Start tab. In addition, Head Start classrooms have audio card readers with many *Unangam tunuu* words utilized in the curriculum. A glossary of *Unangam tunuu* is located in the appendix of this curriculum.

Sea lion ................................................................. *Qawa{x} (E/A)*

Northern fur seal .................. *Laaquda{x} (E)/Hlaaquda{x} (A)*

Harbor seal .......................... *Isu{x} or Isu{giatan} (E/A)*

Sea otter ..................................................... *Chngatu{x} (E/A)*

Whale ............................................................... *Ala{x} (E/A)*

Ocean ............................................................ *Ala{giatan} (E/A)*

Kayak/one hatch baidarka ............................... *Iqya{x} (E/A)*

Use *Unangam tunuu* during:

- Harvest Poster Activity
- Recipe and Nutrition Activity
- Coloring Pages
- Flash cards and labeling items in the classroom
Introduction to Marine Mammals

Marine mammals have always been important to Unangan (E)/Unangas (A), and historically their livelihood depended on them. Today, sea lion, harbor seal, and northern fur seal are mostly used for food and materials for artwork. In the past, various parts of marine mammals were also used for clothing, hunting, ceremony, to construct kayaks, and sod homes. Whales were also a traditional source of food in the past; however, they are no longer hunted in the region today.

Harbor seals can be hunted year-round, though the preferred time to hunt varies throughout the region. They are usually hunted from a boat, but harbor seals can also be hunted from land. Hunters prefer small to medium-sized harbor seals as they are easier to handle, and they taste better. Larger harbor seals are used for rendering the fat into oil.

Northern fur seals are primarily located on the Pribilof Islands, and they can be found in large groups at rookeries. They are hunted on land using a large club during a specified harvest time in the summer. This is controlled by the government.

Sea lions can be hunted year-round on the Aleutian and Pribilof Islands, though similar to harbor seals, each community has its preference for the best time to hunt. Also, like harbor seals, sea lions can be hunted on land or by boat. Small to medium-sized sea lions are preferred by hunters because they are easier to handle, and they taste better.

Main Points:

- Marine mammals are animals that live in the ocean.
- Some marine mammals in the region include: seals, sea lions, and whales.
- The Unangan (E)/Unangas (A) use marine mammals for food, clothing, and artwork. In the past, parts of marine mammals were also used for building homes and kayaks.

Use introductory information during:

- Harvest poster activity
- Recipe and nutrition activity
- Coloring pages
Sea Lion Harvest Poster

Discussion Questions:
The sea lion harvest poster may be used to introduce the marine mammal unit. Using the poster, group discussion questions may include:

- What is happening in this drawing?
- What do you think the sea lion is thinking? And the hunters?
- How is the Unangan (E)/Unangas (A) value “Take care of the sea/ocean” (Tuman alağuḵ agliisaaḵtan (E)/ Alağuḵ agliisada (A) shown in this picture?
- Where would you find a sea lion? (in the water, on rocks, and on a rookery)
- What is a rookery? (a rookery is a breeding or nesting place of animals)
- What other types of animals live on the rookery? (seabirds) Why might an animal live on a rookery? (breeding, safety, or staying warm)
- How do people use different parts of sea lions? (food, whiskers-artwork, skin-clothing; In the past: skin-boats, gut-raingear, stomach-storage)

Unangam Tunuu:
- How do you say “sea lion” in Unangam tunuu? Qawaḵ (E/A)
- How do you say “ocean” in Unangam tunuu? Alağuḵ (E/A)
- How do you say “kayak/one hatch baidarka” in Unangam tunuu? Iqyaḵ (E/A)
Marine Mammal Nutritional Information

Seal and sea lion meat are excellent sources of protein. Why do we need protein? We need to eat foods with protein every day. Protein helps build muscles and organs. It also helps repair and replace muscles and organs so that our body can keep playing longer and growing stronger. Protein also helps little cuts heal.

Seal and sea lion meat are a source of vitamins A and B. Why do we need vitamins? Our bodies need vitamins to get many different jobs done in the body so that we can grow and be healthy. Vitamins also protect our bodies from damage. B vitamins help give our bodies energy. One of the functions of vitamin A is to help us see better in the dark.

Seal and sea lion meat are also excellent sources of iron. Why do we need iron? Our body uses iron to transport oxygen from our lungs to the rest of our body. One 3-ounce serving (about the size of our fist) of sea lion meat provides over half of the amount of iron an adult's body needs in one day. One 3-ounce portion of bearded seal meat has the same amount of iron as 24 hot dogs or 68 chicken nuggets!

Nutrient highlight: IRON

Compare the amounts of food you would need to eat to get the same amount of iron as in 3 ounces of bearded seal meat.* (USDA, 2012)

*3 ounces of bearded seal meat has 14 mg of iron, or 80% of the Daily Value. % Daily Value is the amount of a nutrient you need each day (based on a 2000-calorie diet).
Seal/Sea Lion Meatballs Recipe

Seal and sea lion meat can be prepared by boiling, baking, frying, drying, and salting. Historically, boiling the meat was the most common way to prepare it. The meat is sometimes “soaked out” before using. This refers to removing excess blood from the meat, a process believed to make the meat taste less gamey. For further guidance on “soaking out” the meat, see “Qaqamiigu: Traditional Foods and Recipes from the Aleutian and Pribilof Islands.”

Seal and sea lion meat are often used interchangeably, as in this recipe. Seal or sea lion meatballs are a modern recipe used with ground seal or sea lion meat. Traditionally, seal and sea lion were prepared in a simple way with few ingredients; however, this recipe has many ingredients.

<table>
<thead>
<tr>
<th>INGREDIENTS</th>
<th>DIRECTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/3 cup canned tomato paste</td>
<td>1. In a mixer with paddle attachment, combine tomato paste, water, beef</td>
</tr>
<tr>
<td>1/2 cup water</td>
<td>stock, eggs, oats, and dry milk. Mix for 2 minutes on medium speed.</td>
</tr>
<tr>
<td>1 cup beef stock, non-MSG</td>
<td>2. Add ground seal or sea lion meat, onions, celery, parsley, pepper,</td>
</tr>
<tr>
<td>3 large eggs</td>
<td>granulated garlic, basil, oregano, marjoram, and thyme. Mix on low</td>
</tr>
<tr>
<td>3 cups rolled oats</td>
<td>speed for 3 minutes or until blended. Do not overmix.</td>
</tr>
<tr>
<td>1/4 cup + 3 tablespoon instant nonfat dry milk</td>
<td>3. Portion meatballs with scoop in rows 5 across and 5 down in two pans</td>
</tr>
<tr>
<td>3 pounds + 15 ounces raw ground seal or sea lion</td>
<td>(9” x 13” x 2”). Each meatball should be about 2 1/8” in diameter or just</td>
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<tr>
<td>meat</td>
<td>less than a ¼ cup.</td>
</tr>
<tr>
<td>3/4 cup onions, chopped</td>
<td>4. Bake: Conventional oven: 325°F (1 hour); Convection oven: 275°F</td>
</tr>
<tr>
<td>1 ¾ cup + 2 tablespoons celery, chopped</td>
<td>(50 minutes); when taking the temperature of the meatballs, ensure the</td>
</tr>
<tr>
<td>1 tablespoon dried parsley</td>
<td>thermometer is pushed into the middle of the meatball and the thermometer</td>
</tr>
<tr>
<td>1/2 teaspoon black or white pepper</td>
<td>reads 165°F (CCP).</td>
</tr>
<tr>
<td>3/4 teaspoon granulated garlic</td>
<td>5. Drain fat from pans.</td>
</tr>
<tr>
<td>1/4 teaspoon dried basil</td>
<td>6. Hold for hot service at 140°F or warmer.</td>
</tr>
<tr>
<td>1/4 teaspoon dried oregano</td>
<td></td>
</tr>
<tr>
<td>1/8 teaspoon dried marjoram</td>
<td></td>
</tr>
<tr>
<td>1/8 teaspoon dried thyme</td>
<td></td>
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</tbody>
</table>

Makes 25 servings (serving size: 2 meatballs, provides 2 ounces of meat, 1/8 cup vegetable and 1/2 serving of grain/bread per USDA, CACFP meal pattern).

Recipe adapted from “Meat Balls” (Institute of Child Nutrition, 2017).
Nutrition Activity

Materials needed:

- Mixer
- Large mixing bowl
- 6 small containers or bowls for each ingredient in recipe (meat will need larger container)
- 2 pans (9” x 13” x 2”)
- Scooper (holds about ¼ cup)
- Ingredients for Seal/Sea Lion Meatballs (see recipe)

Directions:

1. Have students wash their hands.

2. Prepare and measure out all ingredients in meatball recipe and place in small containers.
   - Students can help measure out ingredients and place in small containers. Ask students about the ingredients- have they used them before? What do the spices look and smell like? In what other recipes could you use these ingredients?
   - Number each container using masking tape to show the order the foods will be added to the bowl (i.e., #1 tomato paste, #2 water, etc.) Ask why ingredients need to be added in an order.

3. Have students take turns adding the following ingredients into the large bowl: tomato paste, water, stock, eggs, oats, and dry milk.
   - Count the number of ingredients added to the bowl.
   - Ask students if they know what “stock” is. Why is stock used in the recipe?

4. Mix for 2 minutes on medium speed.
   - Students can help with mixing while supervised, and they can help watch the clock.

5. Have students take turns adding the remaining ingredients (ground seal or sea lion meat, onions, celery, parsley, pepper, granulated garlic, basil, oregano, marjoram, and thyme) into the bowl with other ingredients.
   - Talk about the seal or sea lion meat. What color is the meat? Look at how red the meat is. Talk about how seal and sea lion meat are rich in iron. Why is iron important for our bodies? What else makes seal and sea lion meat healthy to eat?
How do you say seal or sea lion in Unangam tunuu?

Which ingredients are vegetables? Why are vegetables good for our bodies?

6. Mix on low speed for 3 minutes or until blended. Do not overmix.

   Students can help with mixing while supervised, and they can help watch the clock.

7. Have students take turns forming meatballs with a scooper or have them hand roll the meatballs into about 2 1/8” diameter balls.

8. Using 9” x 13” x 2” pan, have students place meatballs in rows: 5 across and 5 down in each pan. Fill two pans to make 50 meatballs.

   Have students count the meatballs. How many meatballs are in a row? How many meatballs are in a column? Calculate how many meatballs the class will eat.


10. Each CACFP serving is 2 meatballs per student. Place equal portions of meatballs on each table in the classroom. Encourage each student to serve themselves and try 2 meatballs.

Group discussion questions:

While students are seated and sharing prepared recipe, topics to discuss include:

- What did you like best about making seal/sea lion meatballs?
- Have you made meatballs before?
- What makes seal/sea lion meatballs healthy?
- What are some other healthy ways you could prepare seal or sea lion meat?
Activity Extensions

CREATE

- Create an activity to learn about blubber, such as the Blubber Experiment: (http://stayathomeeducator.com/eight-arctic-themed-preschool-activities/). Talk with students about the importance of blubber on marine mammals; how it keeps them warm, and how it is a source of food for people.

- Create a seal stomach out of paper-mache (blow up balloon: then cover it with paper and paste). Talk about different ways seal stomachs were used in the past (storage container, in traditional dance, stuffing seal or sea lion meat, and cooking).

- Create and dramatize the traditional song on page 18 about a hunter going out to get a sea lion. Assign students to act out the roles of the hunter, sea lion, and drummers.

- Create or teach a traditional song or dance about marine mammals.

INVITE

- Invite someone to talk about traditional kayaks and skin boats including how they were made and used in the past. Incorporate Unangam tunuu words into the discussion.

- Invite a family member to the classroom to share a marine mammal hunting story. Bring some of the tools that might be needed for hunting (no guns or other weapons).

- Invite someone to the classroom to teach Unangam tunuu words related to marine mammals.

- Invite a family member to the class to help prepare a traditional food recipe. See section labeled Volunteers on page 7 for guidance on having volunteers prepare food with students.

- Invite someone to the classroom to butcher a seal or sea lion and learn about the different parts.

SHOW

- Show students the Traditional Harvest Poster. Discuss the appropriate harvesting method and/or tool(s) utilized to acquire the traditional food.

See APIA website (www.apiai.org) under the Head Start tab for additional teaching resources related to traditional foods, such as: nutrition graphs, Unangam tunuu audio glossary, and digital stories.
“Song of the Atkan Aleuts”

“Song of the Atkan Aleuts” is an old Aleut song from Atka from the early 1800s that was recorded by Iakov Netzvetov. It is a song about a hunter going out to sea to hunt in his bidarki (kayak). While out hunting, he sees a sea lion and tries to kill it, but he is unsuccessful. As he returns home after the unsuccessful hunt, he hears the drumming, the music he loves. (Bergsland, K. & Dirks, M.L., 1990; Song adaptation from: Alaska Bilingual Education Center, 1976.)

Discussion questions:

After acting out the above story, ask students the following questions:

- What happened to the sea lion in the story?
- How was the hunter feeling in the story? Why?
- What made the hunter happy again?

It was something Anyone could do. Nothing special, So today I slipped away to hunt.

Paddling toward him, Getting close to him, I speared him. But it didn't penetrate.

Suddenly He dived away.

I paddled after him, I shot at him Again and again But only lost My spear points.

To see no one I had slipped away on purpose; I looked around for someone But in vain.

If there'd been One with whom to cry I would have felt like crying.

After having drifted for awhile I paddled off, To get back home. Getting back, I landed.

My ears were tuned For the sound of drumming, For the one I love Above all else, For the one I think I'm master of: The drum.

I did not hear it sounding But I knew You must be there And there you are!

Take up the drums, Open up your mouths And sing.
Laaquadáx (E)/Hlaaqudáx (A)
Northern Fur Seal
Qawak (E/A)

Sea Lion
Dear Family,

In this unit, we will study about marine mammals found in the Aleutian and Pribilof Islands Region and their nutritional value. The unit may include a group activity where we prepare a recipe using a marine mammal. Information for this unit has been adapted from the book, “Qaqamiiŋuː: Traditional Foods and Recipes from the Aleutian and Pribilof Islands.”

The Head Start Program welcomes and encourages your participation in the classroom and your child’s education. Please consider volunteering your time in the classroom for this unit. Contact Head Start staff to:

- Discuss the importance of marine mammals in Unangan/Unangas culture (food, skin boats, regalia, etc.). Share a story about marine mammal hunting with students. Bring tools that might be needed for hunting (no guns or other weapons).

- Bring in a seal or sea lion to butcher. Allow students to see and learn the different parts of the animal.

- Teach Unangam tunuu words related to marine mammals. Teach a traditional song or dance about marine mammals.

- Help prepare a traditional food recipe.

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**Unangam Tunuu**

**Seal**........ *Isuᵻ or Isuᵻɡᵻ* (E/A)

**Sea lion**............ *Qawaᵻ* (E/A)

Audio recordings of these and other Unangam tunuu words can be found on APIA’s website at www.apiai.org under the Head Start tab. In addition, each Head Start classroom has an audio card reader with recordings of these words.

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**Request for Donations of Food**

- We do not need any foods donated for this unit.
- We are requesting donations of food for this recipe.

We are in need of ________ (amount) of ________________ (type of food) in order to prepare the following recipe in class: __________________________________________________.

*Note that any donated wild meat must be whole, in quarters, or roasts; no burger or ground meats.*

*Please note that all donations must be determined safe for human consumption. You may be asked questions regarding how the meat was butchered, dressed, transported, and stored to prevent contamination, undesirable microbial growth, or deterioration.*

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**Thank you!** *Qaɡaasakung* (E); *Qaɡaalakuwechat* (E-Pribilofs); *Qaɡaasakuq* (A)
Marine mammal recipe to try at home:

Seal Meat Pot Roast

Recipe by: Florence M. Anderson (Hunters of the Sea Akutan Cookbook, 1993)

**Ingredients**
- Seal meat
- ¼ cup oil
- Salt and pepper
- Worcestershire
- 3 cups water

**Directions**
- Flour meat, then brown in oil. Add seasonings, then add water and simmer for 1 ½ hours.


Nutritional Information about Marine Mammals:

Please help reinforce the nutritional information about marine mammals with your child during this unit.

**Nutrition Fact:**

Seal and sea lion meat are very rich in iron. One 3-ounce portion of seal meat has the same amount of iron as 24 hot dogs or 68 chicken nuggets!

**Iron**

Compare the amounts of food you would need to eat to get the same amount of iron as in 3 ounces of bearded seal meat.*

Bearded seal meat (3 ounces)

24 Hot dogs (38 ounces)

68 Chicken nuggets (48 ounces)

*3 ounces of bearded seal meat has 14 mg of iron, or 80% of the Daily Value. % Daily Value is the amount of a nutrient you need each day (based on a 2000-calorie diet). (USDA, 2012)
Notes