

FOOD FROM THE SEA: OCTOPUS GR: 9-12 (LESSONS 6-9)

Elder Quotations:

“Paul Kompkoff, Jr: That’s the way he catches octopus. He stuck a stick under the rock, and if it moves, there’s an octopus down there.

Don Kompkoff, Sr: Another way to catch an octopus: we’d stick a stick in [a hole] and just watch it. If it starts moving, he’s in the hole.

Michael Vigil: I’ll be darned. That’s a good way.”

- Chenega Diaries ⁱ

Grade Level: 9-12

Overview: Octopus are elusive and it requires some practice to locate, capture, and prepare this food from the sea. Traditional Ecological Knowledge (TEK) provides important contributions to a successful octopus harvest.

Standards:

<i>AK Cultural:</i>	<i>AK Content:</i>	<i>CRCC:</i>
<p>C1: Perform subsistence activities in ways that are appropriate to local traditions.</p> <p>D1: Acquire in-depth cultural knowledge through active participation and meaningful interaction with Elders.</p>	<p>Science C (2). A student should understand and be able to apply the concepts, models, theories, facts, evidence, systems, and processes of life science and should (2) develop an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms.</p>	<p>SS3: Students should be able to gather plants, berries, and other edible foods.</p> <p>L1: Students should understand the value and importance of the Sugt’stun language and be actively involved in its preservation.</p>

Lesson Goal: To research octopus harvest methods and uses, hunt for octopus, and prepare an octopus dish.

Lesson Objectives: Students will:

- Plan and carry out an octopus hunt field trip.
- Process and prepare octopus.
- Learn Sugt’stun and/or Eyak vocabulary listed below.

Vocabulary

Words: Sugt’stun Dialects

English:	PWS:	Lower Cook Inlet:	Eyak:
octopus	<i>amikuq</i> (pl: <i>amikut</i>)	<i>amikuq</i> (pl: <i>amikut</i>)	tsaaleeXquh (lit: ‘it stays under a rock’)
low tide	<i>ken’aq</i>	<i>ken’aq</i>	
crab	<i>yuwallayak</i> (dungeness crab)	<i>yuwallayak</i> (dungeness crab)	qiiyAdAch’an’k (dungeness crab)

Kit Library

Snively, Gloria. *Beach Explorations* (pp.201-202 Zonation Mapping)

Neq’rkat: The Wild Foods Cookbook (two octopus recipes)

Materials/Resources needed per class:

Class I

- Tidal Edibles (3) octopus cards
- Octopus – Intertidal Prey Availability & Diet Preference – Marine Symposium Poster (See below)
- Field Trip Permission slip *if needed*

Class II

- Field Trip gear: boots, rubber gloves, sticks, harvest buckets
- *Optional:* Beach crab profile activity requires:
 - approximately 30' line/rope to indicate transect line
 - Quadrants (coat hangers bent into squares) (1 per student group)
 - Crab species field guides (1 per student group)
 - Clipboards (1 per student group)
 - Beach Crab Profile handout

Class III

- Processing and cooking implements and heat and water sources to demonstrate harvest preparation

Web Resources:

Octopus Harvest and Preparation

- <https://alutiiqmuseum.org/explore/past-exhibits/954-sharing-wild-foods> Catching, Prepping, Cooking Octopus (Kodiak, 5:38)
- <https://www.youtube.com/watch?v=akAMYRPhTQ> The Hunt for the Elusive Octopus” (English Bay, 2:34)
- <https://www.youtube.com/watch?v=ttbDZPDTGK8> Catching, Prepping, Cooking, Octopus Cakes (Sand Point, 7:07); Alaska Native Tribal Health Consortium (20% Chlorox Solution used)

Tide Tables

- <http://freetidetables.com/state/Alaska/> Alaska tide tables

Teacher Preparation:

Class I

- Review activity plan and practice Sugt'stun or Eyak vocabulary.
- Decide on local beach to explore for field trip. Consult community members on best location to find octopus.
- Contact your Local Education Coordinator or local Tribal Council for a list of Elders that could share their expertise on the lesson content.
- Review the tide tables to pre-select best low tide for planning octopus harvest. Minus tides are preferred and an hour before low tide is safest. There are significant minus tides in the spring which allow students to see and harvest more.
- Invite an Elder or Recognized Expert to accompany class on field trip to identify edibles and share any stories or memories associated with the harvest, processing, or eating of octopus.
- Before the Elder or Recognized Expert arrives, please review with all of the students, ways to show respect for the Elder during his or her visit.
- Plan and arrange field trip date, transportation, permission slips.

Class II

- Review activity plan and practice Sugt'stun or Eyak vocabulary.
- Invite an Elder or Recognized Expert to accompany class on field trip to identify edibles and describe octopus harvest method. Encourage him or her to recall any stories or memories associated with the harvest, processing, or eating of octopus.
- Assemble collection gear.
- Camera/video recorder
- OPTIONAL: If likelihood of finding an octopus is low consider combining the octopus hunt with a beach crab profile. In addition to hunting for octopus students would lay out quadrants at regular intervals along a transect on the field trip beach to identify and count crab species and numbers, an indication of octopus prey abundance. (See [Beach Explorations Zonation Mapping](#), pp.201-202 for details.)

Class III

- Invite an Elder or Recognized Expert go discuss and demonstrate how to prepare octopus
- Assemble items needed for harvest preparation including hot plate and pan, and utensils, plates, napkins
- Load slideshow of fieldtrip photos and select video footage to share.

Opening: “Octopus/*amikut* are a relative of clams, snail, and oysters. There are more than 30 different species of octopus that weigh up to 100 pounds. The giant Pacific octopus/*amikut* is the largest and can grow to 30 feet in length. Octopus/*amikut* can be found along seaside cliffs at low tide/*ken'aq* or by overturning stones on outer flats during low tides.”ⁱⁱ Where do we find octopus/*amikut* around here?

Activities:

Class I – Octopus Habitat

1. Introduce Elder/Recognized Expert and invite him or her to describe how to harvest and prepare octopus/*amikut*. Where are octopus/*amikut* found locally? What sorts of changes, if any, have been observed in the local octopus/*amikut* population?
2. Invite students to share personal stories of octopus/*amikut* harvests or preparation.
3. Display ‘Intertidal Prey Availability and Diet Preferences of Giant Pacific Octopus’ poster (See website listed above) and review prey preferences of octopus/*amikut* and detection methods used in survey.
4. Watch YouTube videos of octopus/*amikut* capture (listed above). Note: *Some videos and other sources describe the use of Chlorox (Full strength or diluted) to force an octopus out of its hole. This is contrary to ADF&G regulations and is not environmentally friendly.*
5. Port Graham Chief Pat Norman and Port Graham octopus hunter Tim Malchoff described their octopus harvest techniques at an Elders Conference in Homer, Alaska in March 2018: *Choose a minus tide for hunting octopus and look for crab shell piles and rocks with small amounts of sand pushed up next to a front and rear entrance point. Dens will always have two entrances. Insert a gaff or a stick with a small hook at the end to feel for the octopus. Don't pull the animal out if only the tentacle is engaged. The octopus will often shed a tentacle to resist capture. For the same reason don't hook the octopus if only a tentacle appears. Wait until the head emerges. Press the gaff against the head before pulling the animal out from under the rock.*

6. Distribute the *Imaggqat Negek – Foods from the Sea’ Octopus* information cards for students to peruse.
7. Use the tide website listed about or a local tide book to identify a low tide/*ken’aq* and organize an octopus field trip. When would be the best low tide/*ken’aq*? What gear is needed?
8. If needed, distribute Field Trip Permission forms.
9. Homework: Have students interview a family member or Elder knowledgeable about local octopus/*amikut* harvests.

Class II – Field Trip

1. Go on field trip.
2. Have students repeat octopus/*amikut* name in both English and Sugt’stun or Eyak.
3. Ask Elder to help identify octopus/*amikut* dens through location of crab shell piles and suitable rock piles. Encourage him or her to recall any stories or memories associated with the harvest, processing, or eating of octopus/*amikut*.



Octopus Hunting at Night, Port Graham

4. *Optional*: Consider combining octopus hunt with assessment of crab types and populations of beach through a transect analysis. [See Beach Explorations Zonation Mapping p.200-201 for details. Use ‘Beach Crab Profile’ handout for students to record observations.]
5. Distribute collection buckets and gaffs or sticks tools for students to harvest an octopus/*amikut*.
6. Take photos of identification and harvest for use in final lesson. Encourage students to discuss relative abundance or scarcity of resource for the video recorder.
7. Return to class with octopus/*amikut*.
8. *Optional*: Discuss results of Beach Crab Profile and its possible effect on the octopus/*amikut* population.

Class III – Processing and Preparing Octopus

1. Invite Elder/Expert to demonstrate how to prepare and cook octopus/*amikut* OR choose recipe for students to prepare.
2. *Optional*: View the Alutiiq Museum video listed above on the catching and prepping of octopus/*amikut*.
3. Share and enjoy!
4. Show photographs and videos of field trip.

Octopus Recipe

1 octopus and Rock Salt

Remove the skin by rubbing the octopus with salt. Rinse and rub it again until the skin tears off. Wash the octopus thoroughly. Place the octopus into a pot and boil it. Be sure not to overcook it. The entire octopus is edible, even the suction cups.ⁱⁱⁱ



Octopus Patties

4 octopus tentacles

2 eggs

12 soda crackers

1 onion

2 tablespoons pancake mix

1 cup flour

Crisco

Salt and pepper to taste

Finely chop the octopus tentacles and onion. Crumble the soda crackers. In a large bowl, mix the octopus, onion, crackers, eggs, and pancake mix. Form patties from the mixture.

Roll the patties in the flour. Add several tablespoons of Crisco to a large fry pan. Fry the patties until golden brown. Season with salt and pepper.^{iv}

Assessment:

- Students planned and carried out a field trip to harvest octopus.
- Students processed and prepared an octopus dish.
- Students correctly pronounced the Sugt'stun or Eyak vocabulary

ⁱ Poling, Donald Robert. *Chenega Diaries: Stories and Voices of Our Past: Life and Times in the Native village of Chenega, Alaska 1944-1948*. Chenega Future, Incorporated, 2011. p.241

ⁱⁱ DeCourtney, Christine. A., et al. *Traditional Food Guide for the Alaska Native People*. Alaska Native Tribal Health Consortium, 2015. p.72

ⁱⁱⁱ Smelcer, J. E., & Young, M. A. (2007). *We are the land, we are the sea: stories of subsistence from the people of Chenega*. Anchorage, AK: Chenega Heritage, Inc. 158

^{iv} Smelcer 158