Elder Quote/Belief: "All my life, I depended on that shoreline. I would go down to the beach to collect anything to make chowder for that night's dinner. If we needed food I knew where to get it. The beach provided for us."  -Elenore McMullen

Grade Level:  PreK-2

Overview:  Intertidal zones provide food for snacking or creating a meal. Seasonal gathering at low or minus tides provide seaweed and fish eggs clinging to rocks.

Standards:

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<th>AK Cultural:</th>
<th>AK Science</th>
<th>CRCC:</th>
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<tr>
<td>D4- Gather oral and written history and provide and appropriate interpretation of its cultural meaning and significance.</td>
<td>A 14a: A student who meets the content standard should understand: a) the interdependence between living things and their environments.</td>
<td>SS3: Students should be able have knowledge of gathering locations and techniques for bird eggs, fish eggs, berries, herring eggs, gum boots.</td>
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Lesson Goal: To learn about the Chugach Region coastal community’s reliance on gathering foods from intertidal zones.

Lesson Objective(s): Students will:
- Locate/identify the plants and invertebrates that are important foods from the sea in the local areas.
- Learn three Sug’t’sun/Eyak words

Vocabulary Words: Sug’t’sun Dialects

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<th>English:</th>
<th>PWS:</th>
<th>Lower Cook Inlet:</th>
<th>Eyak:</th>
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<tbody>
<tr>
<td>Chiton</td>
<td></td>
<td>Urritaq</td>
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<tr>
<td>Chitons (2)</td>
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<td>Urritak</td>
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<tr>
<td>Chitons (3 or more)</td>
<td></td>
<td>Urritat</td>
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<tr>
<td>Seaweed</td>
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<td>Caqallqaq</td>
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<td>Snail</td>
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Materials/Resources Needed:
Invite Elder/Recognized Expert
Website: https://www.youtube.com/watch?v=in-7B93TQTo
DVD: The Gifts of Kachemak Bay or other DVDs more suited to your local area that depicts local sea life
Books:
Imam Cimiucia- Our Changing Sea
Where the Land and Sea Meet by Kirsten Carlson
Alaska’s Seashore Creatures
Chugachmiut’s *Nupuget* page 42 and 43

Chiton (Pull apart manipulative)
Brown crepe paper or strips of butcher paper
Drawing paper/construction paper
Newspaper
Paint and brushes
Yarn and twine

**Teacher Preparation:**
- Contact Elder/Recognized expert to interview about: bidarkies (chitons), snails, seaweed.
- Invite them to share their knowledge with the class. Review Sug’t’stun/Eyak words.
- Review Sug’t’stun words
- View YouTube Bidarkies; Subsistence Intertidal Food Harvesting in Alaska
- Review pictures, books and DVD
- Make copies of the activities in *Where the Land and Sea Meet* on pages 23 and 25 for each student
- Set out construction paper, scissors, paint, brushes, yarn or twine and newspaper

Photo by Antone Ukatish

Tania Romanoff and her daughter Kaylana gathering urritat on the Nanwalek Reef at night time with a big minus tide.
**Opening:**
Do you think we can go down to the shoreline to find food to eat?

**Activities:**

**Class I:**
1. Introduce Elder/Recognized expert and Local Education Coordinator.
2. View the YouTube video, chiton (Bidarkies in this clip) gathering in Port Graham, Alaska, with students.
3. Show pictures of animals and plants and the Suct’stun/Eyak words.
4. Show DVD suited to the local area that captures the sea life.
5. Ask students to name plants and animals they see in the DVD.
6. Write their responses on the board and identify which foods are used in the local area.
7. Repeat the names of plants and animals in Suct’stun/Eyak.
8. Have students trace the snail or chiton onto two sheets of construction paper, after completing that task, staple the two pieces together and leave an opening.
9. Let students paint their snail or chiton.
10. Once the paint has dried let students stuff newspaper inside.
11. Label the snail/s or chiton/s in Suct’stun and hang throughout the class.

**Class II:**
1. Place resource items; chiton, books, show DVD and pictures for students to look through.
2. Show page 22 in *We are the Land, We are the Sea* to the class and read about seaweed and have students color page 23 according to the description of the seaweeds.
3. Show with meter stick how big a centimeter and meter are to give students an idea of how big seaweed can grow.
4. Show and read about snails on page 24 in *We are the Land, We are the Sea* and help students with activity page 25.
5. Have students select construction paper/drawing paper to draw pictures of chitons, snails and seaweed.
6. Instruct students to label their pictures in Suct’stun/Eyak.
7. Display student’s drawings in the hallway.
8. When students take down their displays instruct them to place these in their recipe booklets.
Photo taken out of Iman Cimiucia- Our Changing Sea
Assessment:

- Student are able to repeat and apply Sugt’sun/Eyak words to their drawings.
- Student able to illustrate chitons, snails, and seaweed.
- Student is able to recall the sea life and plants they saw in the DVD ‘Gifts of the Kachemak Bay’.

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