When the Frogs Sing, Clams are Not Good To Eat—Clam Painting

The Mothers Roots curriculum guide is created for empowering + healing: Indigenous mothers + daughters

Objectives
identify clam species in the Lushootseed language
Identify clam species by collecting a variety of shells on the beach
paint clams using the Coast Salish design elements using primary colors
eat clams

Activity Process
Step 1: Introduce students to the four types of clams harvested by Coast Salish people for food: horse, cockle, steamers, & butter. Have a display of clams in various sizes. This way the students are able to identify the specimens on the beach. Explain to children about shell mideon sites and how to be respectful. Teach the Lushootseed word for each clam and use those words to identify the species throughout the unit.

Step 2: Take a field trip to the beach in your area with a variety of clam shells.

Each student is required to collect all four clam shells that were discussed prior to field trip. Wash clam shells with mild soap, water, and toothbrush and leave to air dry.

Step 3: Set up tables with primary paint colors, paint trays, paintbrushes, rinse water, pencils, stencils, and a copy of the “Coast Salish Design Elements” handout to each student. Introduce the design elements and what they mean. Show examples of different Coast Salish designed art.

Step 4. Ask each student to work on the same clam species in order to have a discussion about this species. Talk about characteristics of the clam including the lines, ridges, umbo, hinge, size, color, and another characteristic. When they start painting use this time to assess what they have learned.

Step 5. Explain that they need to give their first painted clam to an elder and ask for a story related to clams.

Step 6. Ask each student to share their stories or write them in the journals.

Step 7: Host a clambake on the beach (Activity 2)

Key words:
Shellfish
Species
Harvest
Shell Mideon
Nearshore
Environment
Intertidal zone
Clam species
“The Old Indians say, “When the frogs sing, clams are not good to eat.”

**Story of Clams**

“DURING THE MOON of Salmon Return, Starlight and her people, the Lummi tribe, prepared to leave the sockeye fishing grounds. They traveled by dugout rafts to the clam bed on Orcas Island. They made a temporary camp until enough clams were gathered to eat fresh and to smoke for the Moon of Winter.

“High Cloud and his men dug the clams when a large amount was needed. Starlight and the Indian women gathered the clams when a small amount was wanted for eating. They dug the clams with a strong ironwood stick.

“Chief Chow-It-hoot marked the clam beds that were to be dug each season. They dug each bed in turn, until all had been dug. They repeated this method each season. When they gathered the clams from the first bed again, they had grown to a usable size.

“The Lummi Indians gathered four varieties of clams: the cockle clam, the horse clam, the steamer clam, and the butter clam. The cockle clam was gathered to eat fresh. They also smoked them for the Moon of Winter. They gathered them in the sand bars where it was easy to dig.

“Starlight dug a large hole in the beach and placed rocks in the middle of the hole. She started a fire with dry alder wood. When the rocks were hot, she cleaned the ashes away from them. She piled the cockle clams on the hot rocks and covered them with seaweed. The steam from the hot rocks cooked the clams and opened the hard shells.

“The large horse clam sometimes weighed one pound. They worked themselves down into the sand quickly. The men had to dig fast in order to get them. The Indian women dug long pits and built a fire the length of the pit with dry alder wood. Starlight stuck the shelled clams on pointed ironwood sticks and put them on racks over the fire to smoke. When they were dry she packed them in cedar storage baskets for the cold moon.

“The steamer clams were gathered and eaten fresh. Starlight never stored them for the cold months. The butter clams were also eaten fresh. The butter clams were prepared in the same way as the cockle clams. Starlight often exchanged clams for hides and basket grass.

“The Old Indians say, “When the frogs sing, clams are not good to eat.” “it is true, just as I am telling you, “ said Grandmother.

Clams are part of the mollusk group, similar to many shellfish including scallops, mussels and oysters. They are called bivalves because they have two shells (or valves). These two shells are attached by the muscular hinge called the adductor muscle protecting a soft body inside.

Clams burrow under the sea floor using their foot, helping them move and hide. When threatened, most clams will pull their siphon into their shell and close tightly for protection. They can survive stresses such as predation or poor water quality by doing this for several days. However, they will die if their valve or shell remains closed for too long.

Clams are filter feeders, filtering up to 50 gallons of water a day. They use their tube-like siphon to draw water in, extracting oxygen and filtering plankton (tiny plant-like organisms they eat). This filtering helps improve water quality and keep algae populations under control.

They are also carbon-fixers, helping to reduce carbon dioxide levels in the water by removing the carbon and incorporating calcium carbonate into their shells as they grow. Water temperature is seen as a key factor influencing growth and reproduction causing the clam to produce different sized rings and ridges on their shells like tree rings.

Christmas Clams: History of Lone Tree Point By Theresa L. Trebon. (2012)
Clams found at Swinomish

Butter clams - stxʷub pronounced (suw-OOB) in Lushootseed and commonly called hard shells. The butter clams shell are oval and etched with many concentric lines centered at the hinge. This species has been known to live for more than 20 years, growing to 6” to 8” in length and can burrow down into the sand over a foot deep!

Manilla clams are also referred to as steamers due to their similar size and shape to native littlenecks. They have no native name, as Manilla were accidently introduced from Japanese oyster seed in the 1930’s. Manillas are oblong with both radiating and concentric ridges on the external surface. Horse Clams

haʔəc pronounced (HA-uc) in Lushootseed. Horse or gapper clams are very large with an elliptical shape, more wide and rounded on one end. Horse clams may reach sizes of 8’ to 10’ in length. These clams are noted for sporadically spurting jets of water almost three feet into the air.

Native littlenecks

sx̌aʔaʔ pronounced (SHA-a) or rock clam or small butter clam in the past. Their current common name is steamer for the widespread practice of preparing these clams by steaming. The native littleneck has oval shells with both radiating and concentric raised lines. This is a fast growing clam reaching lengths of 2” to 4”, and living as long as 14 years.

Cockle sx̌əp̓ab pronounced (shu-PAB). Cockles have shells that are roughly oval with a heart shaped cross section and prominent radiating ribs. Cockles may reach sizes of 4” to 5” in length. Its long foot can be used in remarkable thrusting motion, pole vault style, to escape from its enemies.

Softshell Clams

hiʔhaʔəc –

“My Grandmother and Grandfather used to cook ducks, salmon, clams, and oysters.”

Joseph McCoy, Suday, Swinomish Elder, Our Ways, Testimonies of the Swinomish Way of Life

Shoftshell Clams

hiʔhaʔəc pronounced (HEE-ha-c) have very soft shells up to 2” -4” in length and are slightly elongated with many concentric rings. The “eastern” softshell clam was introduced in the late 1800’s from the...
Atlantic. This clam burrows by shooting water out to assist the use of its foot.

Bent—nose Clams—tilus pronounced (TI-lus). Bent—nose clams are small, 1” to 3”, and easily identified by noting one end of the valves are bent or hooked to one side. This bend increases with size and age of the clam and is always to the right.

The purple varnish clam was introduced from the ballast water of ships from Asia in the 1900’s and is rapidly spreading throughout the west coast. The thin round shells have a distinctive rich purple interior with a brown covering that peels off. They are found in the upper beach in high densities and reach sizes up to 3”.

Blue or Bay Mussels—tulqʷ pronounced (tolkw). They are characterized by their smooth shell and dark blue color and usually 2” - 4” long. They are related to clams but unlike clams, mussels live attached to hard structures like piers or rocks with their tough stringy beards or byssal threads. Mussels usually form large dense colonies and can filter large amounts of water, which is important for cleaning the water.

Christmas Clams: History of

Bent-nose Clam tulqʷ –
Blue or Bay Mussels
Clam soup and frybread recipe

CLAM SOUP
(serves 6)
2 dozen fresh clams, in the shell, cleaned
3 dozen fresh mussels, in a shell, cleaned
Six 1 - 2 pounds fresh crab
6 ears of corn, in the husk
6 medium potatoes, unpeeled
1 chopped onion
2 quarts water

Place the clams in the bottom of a very large, deep kettle. Add 3 of the crabs, 3 of the ears of corn, onion, then the 3 remaining ears of corn and the 3 remaining crabs. Place the mussels and clams in and around the other foods. Pour in the water. Cover the kettle and bring to a boil. Lower heat and simmer for 1 hour, or until the potatoes are tender. Serve hot.

Frybread recipe
6 cups flour
1 packet yeast
¾ cup sugar
1 cup powdered milk

“Recognizing the connection of the environmental conditions to the traditional ways of eating.”

Joseph Mcoy, Soday, Swinomish Elder, Our Ways, Testimonies of the Swinomish Way of Life
Clam recipes (continued)

BAKED CLAMS (OR Oysters) ON THE HALF SHELL
- Freshly opened clams or oysters on half shell
- Cornmeal
- Oil
- Ground pepper
- Chopped parsley
- Chopped sea lettuce

Place the clams (or oysters) in their half shells in a baking dish. Sprinkle with a mixture of the remaining ingredients. Bake in a preheated 325 degrees oven for 20 minutes, or until golden. Serve hot.

CLAMBAKE (serves 6)
- 2 dozen fresh oysters, in the shell, cleaned
- Six 1 to 1.5 pounds fresh crab
- 6 ears corn, in the husk
- 6 medium potatoes, unpeeled
- 3 dozen fresh mussels, in the shell, cleaned
- 2 dozen fresh clams, in the shell, cleaned
- 2 quarts water
- 2 whole scallions

Place the oysters in the bottom of the very large, deep kettle. Add 3 of the crabs, 3 of the ears of corn, the 6 potatoes, then the remaining ears of corn and the remaining crab. Place the mussels and clams in and around the foods. Pour in the water, and place the scallions on top. Cover the kettle and bring to a boil. Lower heat and simmer for 1 hour, or until the potatoes are tender. Serve hot.

CLAM CHOWDER (serves 6 to 8)
- 1 large onion, chopped
- 2 large cloves garlic, crushed
- 1/4 pound butter
- 2 dozen clams, steamed, shucked, and diced
- 2 large unpeeled potatoes, diced
- 2 cups clam broth
- 2 cups light cream or milk, or 2 cups stewed tomatoes
- 2 cups diced celery

Garnish: ground celery and chopped chives to taste

Sauté the onions and garlic in the butter in a deep kettle until golden. Add the remaining ingredients and simmer slowly until the potatoes are tender—about 30 minutes. Serve hot., garnished with pepper and chives. Oyster or mussels may be substituted for the clams.

BOILED MUSSELS (serves 4)
- 4 dozen mussels, in the shell, scrubbed well
- 1 quart boiling water
- 1/2 pound butter
- 1 cup chopped parsley
- 1/2 cup chopped leaks (including tops)
- 1 cup cider vinegar

Steam the mussels in the water for 10 minutes, until tender. Place the mussels on the half shell in a flat pan, pour the broth over them, and sprinkle with the garlic and cornmeal. Top with the parsley or sea lettuce. Sprinkle oil over all. Broil until lightly browned.

STEAMED MUSSELS OR MUSSEL SOUP
- 2 quarts mussels, in the shell, scrubbed well
- 1 quart boiling water
- 1/2 pound butter
- 1 cup chopped parsley
- 1/2 cup chopped leaks (including tops)
- 1 cup cider vinegar

Place all ingredients in a heavy pot and cover with boiling water. Cover and steam until the mussels are fully opened—about 10 minutes. (overcooking will make the mussels tough and less flavorful.)

Serve hot in bowls with its own buttered broth, seasoned with ground pepper and chopped fresh parsley.