



Shellfish Activity



Ocean Literacy

Principle: #5

The ocean supports a great diversity of life and ecosystems. Tides, waves, and predation cause vertical zonation patterns along the shore, influencing the distribution and diversity of organisms.

Ocean Literacy

Principle: #6

The oceans and humans are inextricably interconnected. Everyone is responsible for caring for the ocean. Individuals and collective actions are needed to effectively manage ocean resources for all.

Target Audience: Outreach event, all ages

Purpose: Increase awareness of shellfish harvests in the Pacific Northwest, especially the economic, environmental, and cultural significance to our region. Aquaculture allows us to meet the needs of feeding our nation and contributes to our economy. We want our communities to understand why harvest areas are dwindling and the causes of closures.

Objectives: The audience will be able to...

1. Match the entrée to the word on the game board;
2. Place the shells to the corresponding shellfish on opposite sides of the laminated card;
3. Determine if this shellfish is harvest in the wild or via aquaculture on a farm.
4. Hopefully this will start a conversation that can be continued.

Supplies Need:

- Table, chair, table cloth with NOAA logo
- Tube with rolled up game board
- Tub with the different species of shells (use two with the game, may have extra in box in case one gets broken) and laminated entrée cards
- FishWatch recipe cards, Aquaculture Factsheets
- Additional props: vocabulary cards, kitchen objects to help describe vocabulary (sieve (filter feeding process), straw (siphons), zester (radula), bottle of glue (byssal threads of mussels), gallon of water (ecosystem service of purifying the water))
- Real props: clam shovel, clam gun, clam gauge (often a hole at the end of the crab gauge), real license stub, ID book or reference cheat sheet
- Potential display describing some science projects in the PNW:
 - Ocean Acidification
 - Harmful Algal Blooms and plankton ID cards
 - restoration techniques to improve habitat in the wild
 - aquaculture techniques (PVC pipes, strings hanging from floating structures, bags, etc.)

Science, Service, Stewardship

Suggested questions:

- Do you know what type of shellfish this is?
- Do you know if it is harvested from the wild or from a farm? Answer on back.
- What is your favorite kind of seafood? Have you heard of our FishWatch program?
- Check out recipes cards
- Acknowledge each group with a “Clam” clap!



How to set up the table:

Shellfish Activity:

1. Pull people in, hold up the first entrée and ask if they can match this dish to the type of seafood or shellfish on the board. Potential hints (geoduck and clams have an additional photo on the back; point to muscles (mussels), or say have you ever had this in a chowder? (clams) This is great as “shooters or fried” for oysters, look at the pretty color on the inside of the shell (abalone), etc.)
2. Next, ask if they can match the shells on the right side of the board to the shellfish, this is a perfect time to teach them either a natural history fact, ecosystem function, or culinary tip. You can utilize the vocabulary words or props to assist (siphons, byssal threads, pearl, adductor mussel, etc.)
3. Lastly, ask if they know if this type of shellfish is farmed or harvested in the wild. This will hopefully engage a conversation about our National Aquaculture Initiative or local initiatives.
4. Additional topics to talk about:
 - a. **NOAA’s FishWatch Program:** Share recipe cards, highlight sustainable fish or shellfish in your area
 - b. **PREDATORS:** Ask if they can open any of the shells. How would a bird open one (drop)? A sea otter (use a rock)? A sea star (tube feet to open, invert stomach into shell, and use chemicals to dissolve and slurp up), and lastly a moon snail (drills a hole with radula).
 - c. **OCEAN ACIDIFICATION:** Check out our website, we also can suggest some lesson plans too.
 - d. **HARMFUL ALGAL BLOOMS:** Direct to the NWFSC website, check out resources and lesson plans.
5. Lastly, ask them why many of our beaches are closed and what they can do to prevent pollution and how we can minimize our impacts when we come to the beach. (Storm drain stenciling; reduce chemicals on lawns or in general; car maintenance to prevent leaks and other ailments, be a conscientious consumer, tread lightly, leave only footprints, take photos of shells rather than collecting them, pick up litter)
6. Thank them for their time, acknowledge their participation positively (high five, “clam” clap, etc.) and leave them with a factsheet or sticker sheet to help remind them who NOAA is and what we are doing to promote aquaculture, as well as Science, Service, and Stewardship.

Scallop

Oyster

Clam

Mussel



Geoduck

Cockle

Razor Clam

Abalone

*What's on
your plate?*

Match the entree to the type of shellfish

What am I?



**farm &
wild harvest**

What am I?



harvested

in the wild

What am I?



Also prepared like this.



harvested from a farm

What am I?



harvested
from a farm

What am I?



harvested

in the wild

What am I?



Also prepared like this.



harvested from a farm

What am I?



harvested
from a farm

What am I?



harvested

in the wild

What am I?



harvested

in the wild