

Lesson 12: Oyster Anatomy

Subject

Form and Function

Objectives

The students will:

- Learn the function of different shellfish body parts.

Materials

- Live tank
- Dissected clam
- Dissected oyster
- Dissection kit
 - Atlas gloves (2 pr)
 - Shucking knives
 - Scalpel
 - Hammer
 - Labels
 - Paper plates
 - Hand sanitizer
- Hand lenses (3)
- Giant magnifiers (2)
- Dissection flip cards

Size/setting/duration

One third of class/Birch Bay State Park BP Heron Center/15 minutes

Background

Students have already compared and contrasted shells of different clam species. This lesson takes a look at the internal anatomy of live shellfish.

Procedure

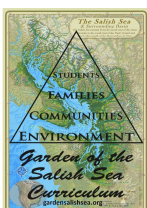


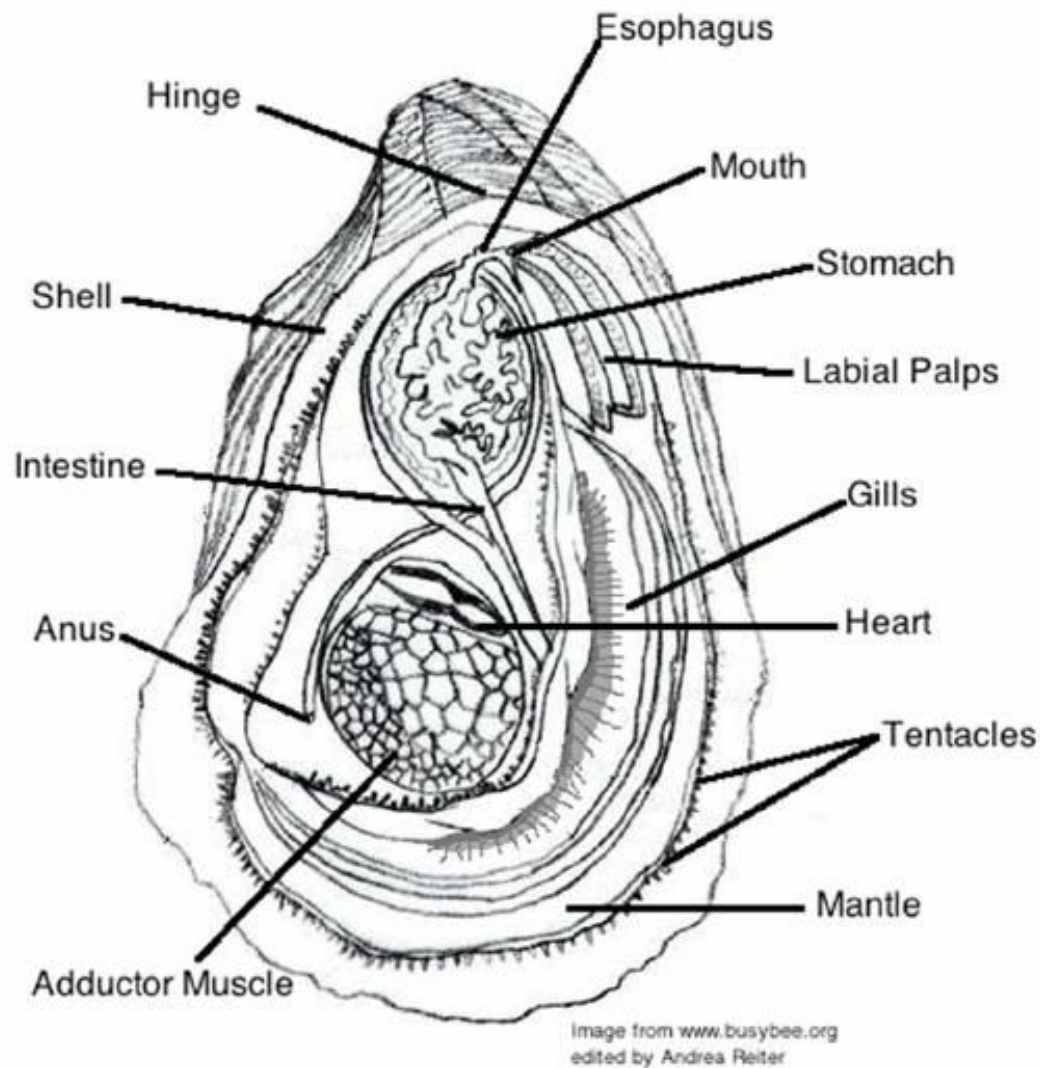
- Have students observe the live tank which has both clams and oysters. Unlike the shells that they have seen previously, students can observe the gills of the oysters and siphon of the clams.
- Show students dissected clams and oysters that are labelled. Using the graphic of the labelled oyster students can read the functions of the different body parts. Shellfish are filter-feeders. Show students the gills which enable shellfish to filter the water to eat.
- Ask students to compare the anatomy of the clams and oysters and make observations as they fill in their worksheets.
- Students will do a gut analysis to determine what clams and oysters eat.

Next Generation Science Standards

Performance Expectations		
5-LS2-1: Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment		
Scientific and Engineering Practices	Disciplinary Core Ideas	Cross-cutting Concepts
Developing and using models Science models, laws, mechanisms, and theories explain natural phenomena	LS2.A: Interdependent relationships in ecosystems LS2.B: Cycles of Matter and Energy Transfer in Ecosystems	Systems and System Models

Graphics & Worksheet





Gills – breathing and filtering. Beating cilia move water across the gills

Mantle – membrane that secretes calcium carbonate, which forms the shell

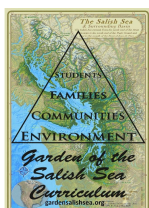
Tentacles – sensory organ, feels things

Hinge – part of the oyster that allows it to open and close

Adductor Muscle – closes shell

Heart – pumps oxygen and nutrients to other parts of the body

Labial Palps – sorts food (like fingers)



Oyster Exploration

Live Tank

Draw a picture of at least one organism in the live tank.



How do clams and oysters eat? _____





Oyster Dissection

In the box, make a scientific drawing of the oyster.
Find and label at least 3 body parts.

