

## Oyster Anatomy Laboratory



### External Anatomy of an Oyster: Observation and Investigation

#### MATERIALS

This activity uses:

- A set of valves from an oyster in which the animal has been removed
- Large magnifying glass (optional) and/or Stereomicroscope (optional)

#### PROCEDURE

Students follow directions given on here. Answer questions on “Oyster Anatomy Lab- Student Worksheet.”

An oyster is composed of shells called valves. When working with the oyster, be careful — some edges of the valves can be very sharp (Figure 1).

1. How many valves does an oyster have?
2. What is the general name given to a mollusk with this many valves?

The oyster is more pointed at one end. This is the anterior end — called the umbo (Figure 2). The umbo is the oldest part of the oyster.

The posterior end is the larger, curved end — called the bill (Figure 3).

The height of the oyster is the distance from the umbo to the bill (Figure 4).

3. What is the height of your oyster?

Observe the size of the two valves and how they fit together (Figure 5).

The right valve is shorter (flatter) than the left valve\*. The umbo end of the left valve extends past the umbo end of the right valve (Figure 6). \*Note: this is true for most oysters, but the size and shape of an oyster can be determined by its environment.

4. Draw a picture of your oyster and label the umbo, bill, left and right valves.

Separate the two valves to expose the internal surfaces (Figure 7).

On the inside surface of the valves you will observe a dark area. This is the scar from where the oyster's adductor muscle was attached to the valves (Figure 8).

5. What is the function of this muscle?

Flip the two valves over to expose the external surfaces of the valves.

The oyster reef is home to a number of different organisms. How those organisms use the oyster reef can leave artifacts (or signs) of their presence on an oyster's shell. Most of the organisms that live on or around oyster reefs are not harmful or helpful to the oysters. This type of relationship is called “commensal.” Some organisms that live around oyster reefs prey on oysters. See Artifact Guide.

6. Identifying at least two artifacts seen on your oyster. Draw and label these artifacts.