

Clam Anatomy Exercise

Objective:

Students will observe the inside and outside of a clam. Record on the sheet provided.

Each student will receive the following materials:

fresh clam (in shell), shucked clam, calipers, tray, dissecting tools, clam diagrams

Outside of the clam shell (use live clam):

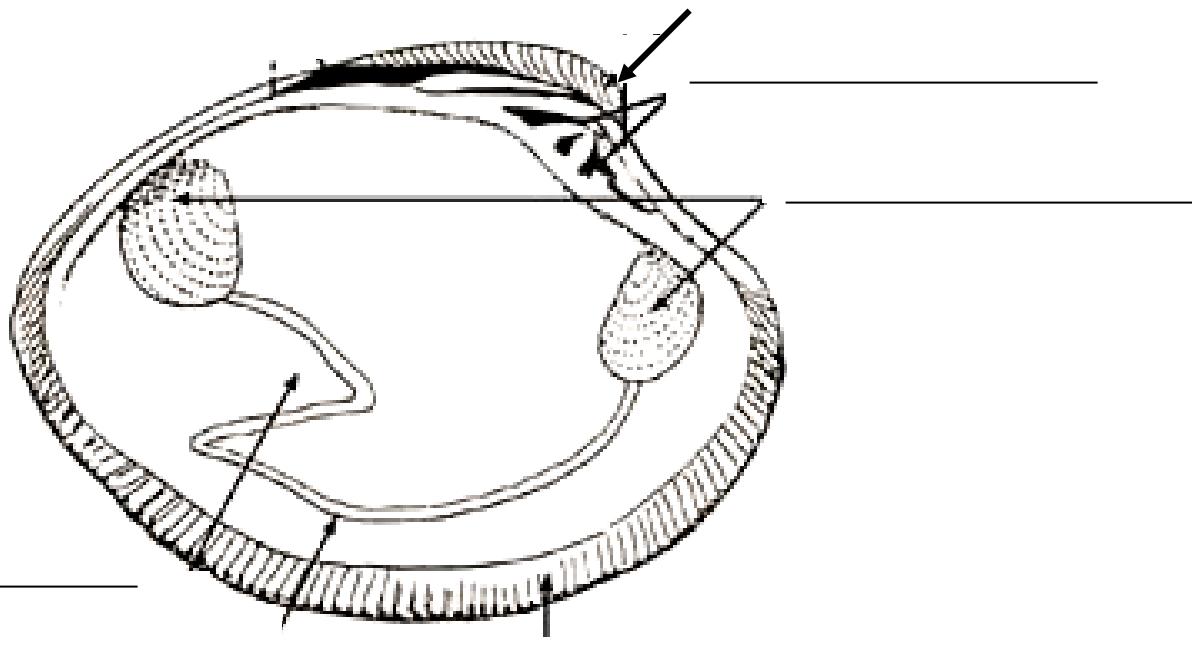
- 1) The soft body of the animal is protected by how many shells (valves)? _____
- 2) Identify the **anterior and posterior ends**.
- 3) Write a **description of the shell's appearance**: color, shape, growth rings, distinguishing marks

- 4) **Measure** the clam (1 inch = 25 mm) with calipers:

Length _____ mm or inches Height _____ mm or inches Width _____ mm or inches

Inside of the clam shell (use shucked clam):

- 1) Identify **anterior and posterior ends**, and the **dorsal and ventral sides** of clam shell below.
- 2) Locate the following on the clam shell below and record on blank lines provided: **anterior and posterior muscle scars, umbo, hinge ligament and teeth, mantle attachment, and small teeth**



Inside of the clam (use shucked clam):

1) The thin, whitish flesh lining is called the _____.

2) Carefully lift the mantle up to expose the internal organs of the clam.

Locate the following parts of your clam according to the diagram. Place name on the blank line provided.

Write below next to the body part if it is used for (P) protection, (E) eating, (B) breathing, or (M) moving.

Umbo _____

Mantle _____

Anterior adductor muscle _____

Posterior adductor muscle _____

Foot _____

Incurrent siphon _____

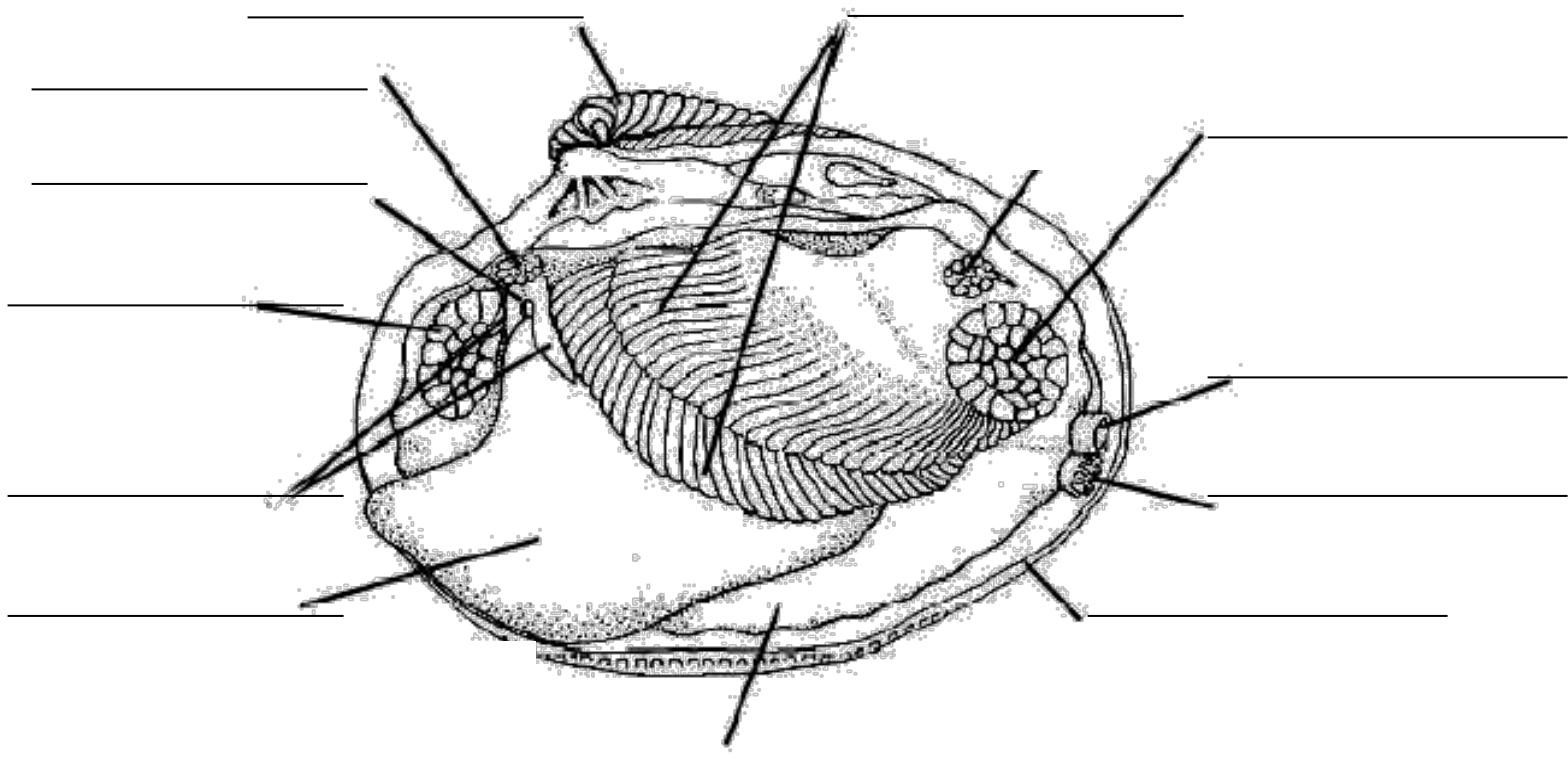
Gills _____

Labial Palps _____

Mouth _____

Excurrent siphon _____

3) Lift the gills to find the stomach and intestines. Can you find the crystalline style or heart?



Discussion:

A. What did you learn from working on a fresh clam?

B. Was it easy or difficult to locate all the body parts? Why?

C. What are some differences between the anatomy of a hard clam and oyster? Explain.