



DIGITAL EDUCATION

Cornell Cooperative Extension | Marine Program

Family Resources

HARD CLAM

Mercenaria mercenaria



WATCH and Read

Ripple effect: Cornell helps restore Long Island's shellfish

<https://news.cornell.edu/preview-link/node/313296/b74acb56-4ab9-4f42-8fa0-998fea1f2a12>

Explore the ecology and importance of the Hard Clam. Find out how CCE is using aquaculture to help raise millions of clams and help the wild population bounce back.

Have a chat

Use these talking points to start a conversation with your family about the video(s) you watched.

- Clams and other bivalves are filter feeders that help clean our bay water? How do you help keep your room or house clean?
- What dishes do you eat that have clams in them? What about oysters, scallops, or mussels?
- Why did the hard clam population decrease?
- Why would it be bad to lose the clams from our bays?
- What can we do as citizens to help protect the hard clam and make sure we have enough for the future?
- Think about your last trip to the beach. Did you find any clams or shells? Do you still have any in a collection?
- Do you grow plants in a garden? How do you think that is similar or different from growing clams?

Do an experiment

- Find some items in your house that filter and clean water, just like the clams. A coffee filter, strainer, sponge, piece of cloth...think outside the box, if you aren't sure, just try it!
- Mix a little dirt or sand in some water. Stir it well so its all evenly mixed.
- Pour the dirty water through your homemade filter, over a bucket or bowl to catch the filtered water.
- Which item worked the best? _____
- How much water do clams filter in one day? See if you can find it in the fact sheet or videos?



The Anatomy of Food

Have you ever been told, “stop playing with your food!”
Well here’s your chance to break the rules.

Below, are diagrams of bivalve anatomy. Your **anatomy** is all the parts of your body. You are a human. You have a head, eyes, ears, nose, mouth, torso, arms and legs, a belly button, and so on. What about bivalves? Let’s have a look.

Have you ever eaten clams, scallops, mussels, or oysters? What part do you think you are eating?

Clam



We eat the muscular foot, or whole

Scallop



We eat the large adductor muscle

Mussel



We eat everything but the shell!

Oyster



Anatomy and Function

1. Gills – Fish use them to breathe, bivalves use them to filter algae out of water for food.
2. Siphon – Similar to a mouth, brings water in one opening and out another during feeding
3. Heart – Circulation
4. Eyes – Sense light, but not as powerful as yours (only in scallops)
5. Mantle – Builds the hard shell
6. Foot – Used to dig down into the sand
7. Digestive system – Breaks down food
8. Adductor muscle – Holds the shells tightly closed for protection and to avoid drying out
9. Hinge – Where the two shells connect together

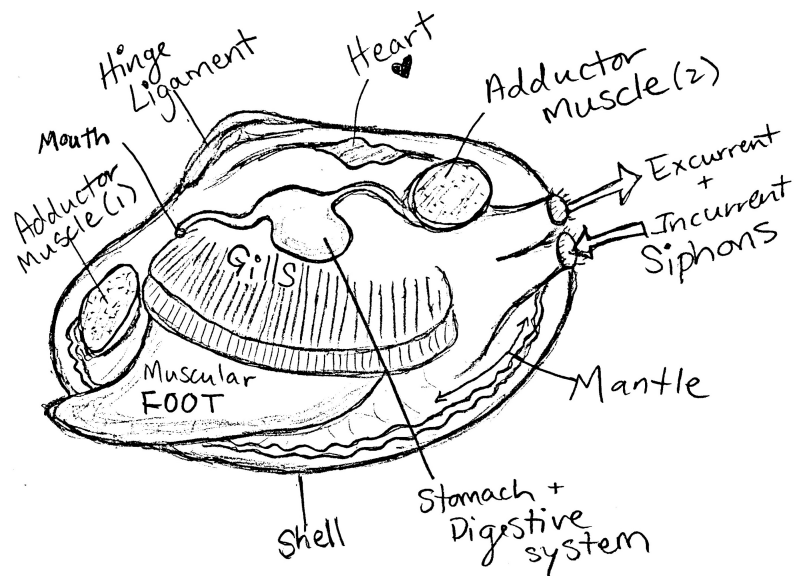
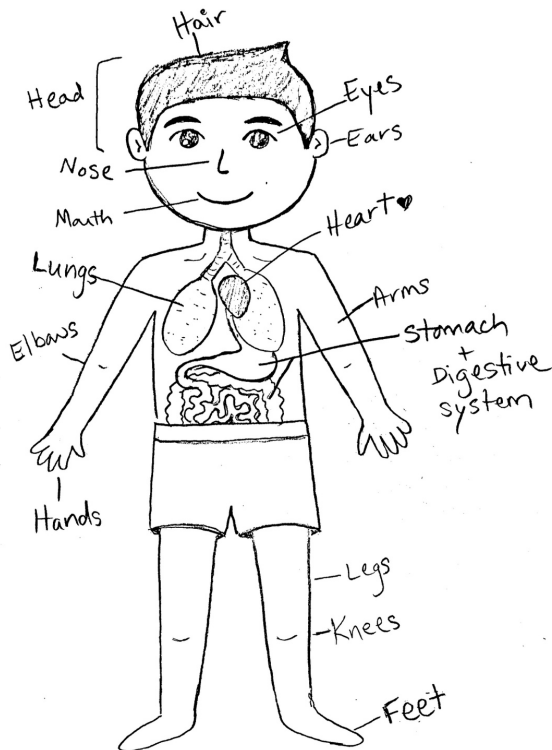
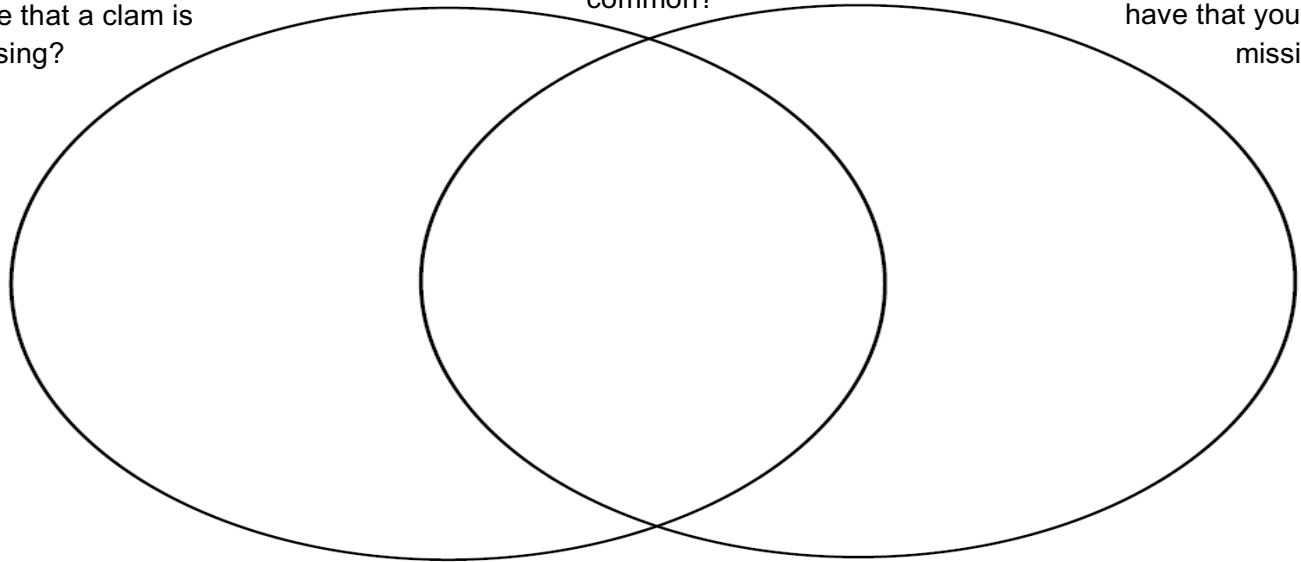


How do you compare to a clam?

What parts do you have that a clam is missing?

What parts do you and a clam have in common?

What parts does a clam have that you are missing?



Check back each week for a new topic!
<http://ccesuffolk.org/marine/digitalEd>

