

Name _____

Squid & Octopus Lab



Objectives:

- To observe the external and internal anatomy of a cephalopod.
- To compare and contrast tentacle designs of a squid and the arms of an octopus.
- To write your name in squid ink!
- To examine the squid's eye

Directions:

1. Examine the outside of the squid. Draw & Label the **tentacles**, **head**, **eyes**, **mantle** and **fins** into **Figure 1**.

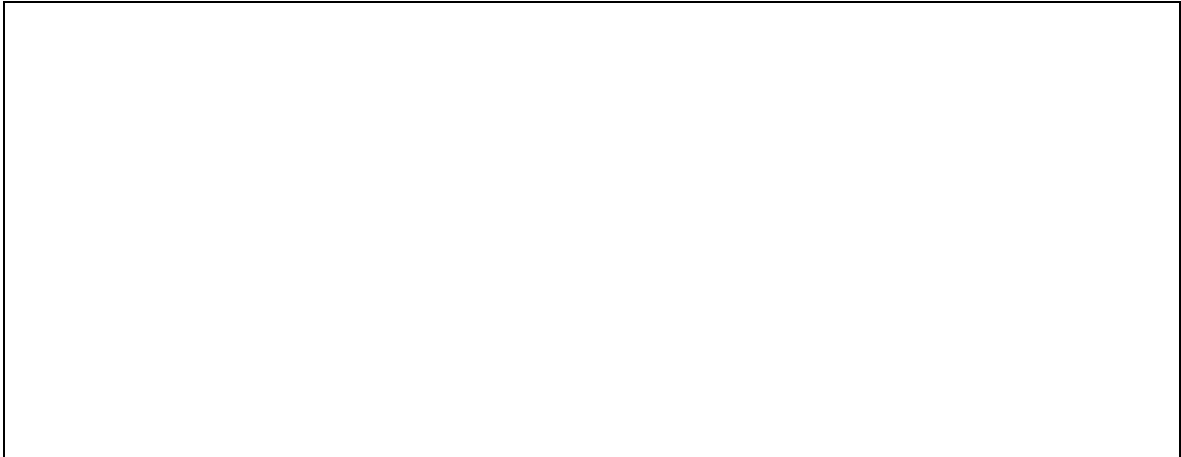
Figure 1: External Anatomy of the squid with labels



2. Look at the squid's mouth. Remove the **beak**. Touch and examine the beak.
3. Try to see how the jaws work together.
4. Go through the mouth with your tweezers and grasp the **brain** and the long **nerve** attached to it. Carefully remove and examine it.
5. Turn the squid over and lay it flat. Carefully cut through the mantle only. Lay the mantle open.

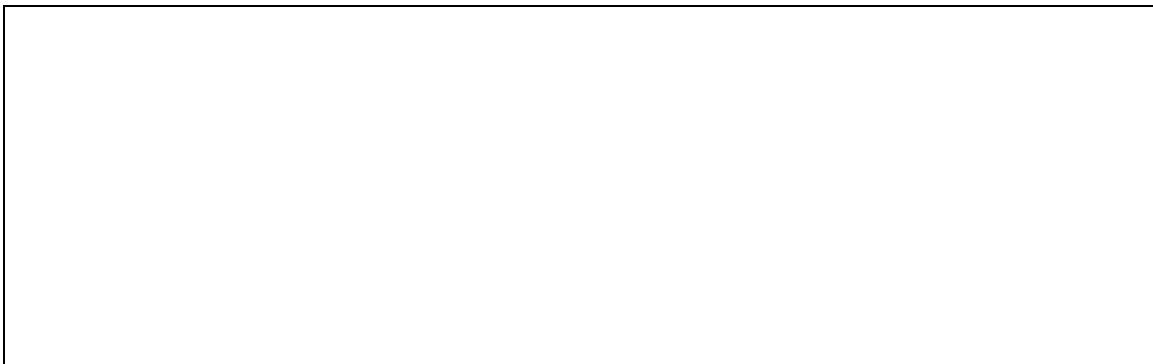
6. Using the squid diagram sheet for reference, find and examine: the **food tube, liver** (pale brown), **stomach** (glistening, white), **gill** (feathery) and **hearts**.
7. Draw & Label diagram in **Figure 2**.

Figure 2: Internal Anatomy of Squid with labels



8. Find the **silvery, black ink sac**. Locate the hard **pen** near the squid's fin end.
9. Grasp the pen and pull it out. Gently pierce the ink sac with the pen.
10. Write your name using the **ink** into **Figure 3**

Figure 3: Writing my name/initials in squid ink!



11. Remove the eye from the squid and examine it. Remove the **cornea** (film like), and the **lens** (hard, silvery pearl-like structure) Label and sketch into **Figure 4**.

Figure 4: Squid Eye with labels



12. Compare the Squids tentacles to the arms of the Octopus. Note the shapes, sizes and textures, and sketch into **Figure 5**:

Figure 5: Octopus arms



Analysis:

1. How many **tentacles** are there on a squid? _____
2. Look at the **suction cups**. How many tentacles have them? _____
3. How many tentacles **do not** have suction cups? _____
4. Describe how the **pen** looks and feels.

5. What do you think is the **purpose** of the pen?

6. **Compare** and **Contrast** the tentacles of the squid and the arms of the octopus.

List 2 **differences**: _____

2 **similarities**: _____

7. How is the squid's **eye** similar to ours? _____

Conclusion: 2-3 sentences on what you learned

DID YOU LABEL EVERYTHING?

TEACHER'S NOTE: (This is just my personal opinion and experience.) I would NOT buy the squid from the biological supply companies, they are too big, hard to manage and cut. I buy my squid from the local supermarket, they come in 3 lb frozen boxes and are about 5 inches long and very inexpensive. Defrost them overnight. I use one squid per group of 3-4, but you can have one for every 2 people as well. Your classroom will smell like a fish market for the day, but its worth it! This is one my favorite labs of the year!

