

Squid Pre-Lab



Name: _____ Period: _____ Date: _____

Resources: Mr. E Science Squid Dissection Guide and the squid dissection video. Complete this pre-lab before dissecting. Answer in your own words; use both resources.

A • Meet the squid

1. Give the squid's kingdom, phylum, and class. (Video 0:10–0:20)

2. Describe its habitat. Why can't we give this specimen a definite species name or native range from the guide alone?

3. In the sense used in the video, why is the squid described as a decapod even though it does not have ten legs? (Video 0:48–1:10)

4. Compare the number, length, and sucker distribution of the arms and tentacles. (Video 0:48–1:22 and 3:32–4:15)

5. Explain how the squid moves. How does this aid in the capture or handling of prey? (Video 2:21–2:54)

B • Prepare for the dissection

6. List the protective equipment and dissecting tools you will need.

7. Why should gloves and eye protection be worn during the dissection?

8. Name two ways suggested in the safe handling of tools.

C • External Examination

9. What is the external landmark? With the funnel facing up, describe the anatomical positioning of the squid in the dissecting tray. Dorsal, ventral, anterior, and posterior surfaces. (Video 1:22–3:32)

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10. Name the three main body regions. What region is the mouth, eyes and beak located in? Specifically, where is the beak located? (Video 0:22–0:47)

11. Using the guide and lab write-up, list all external structures you will be required to identify and label.

D • Internal Examination

12. Where will you start the mantle incision, and in which direction will you cut? Explain how you will protect the organs. (Video 6:50–7:15)

13. How will you hold the mantle flaps open without damaging the organs? (Video 7:15–8:16)

14. What is the internal landmark? Which paired structures will you look for first inside the mantle? What is their function? (Video 8:17–8:30)

15. Why should you locate and identify organs before removing any tissue?

16. What type of heart is located at the posterior base of each gill? What other type of heart is there? What is the total number of hearts? (Video 10:01–10:29)

17. What is the last structure you will identify in the dorsal mantle cavity? Identify its structure and function. (Video 11:25–12:20)

18. Using the guide and lab write-up, list all internal structures you will be required to identify and label.

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E • Connect organs and function

Use guide pages 6–9 and video 8:17–12:40 for the following questions.

19. Explain the different jobs of the branchial hearts and systemic heart. (Video 10:01–10:29)

20. Put these structures in the order food reaches them: stomach, mouth/beak, esophagus.

21. What does the term dioecious mean? What organ removes metabolic waste from the blood?

22. State one function of each: ink sac, kidneys, gonad.

F • Mouth, beak and head

23. Describe how you will expose the beak safely. What two portions will you label? (Guide p. 9; Video 13:58–15:27)

24. Why is the lens of a preserved squid cloudy instead of clear as it is in the living animal? (Video 5:42–6:29)

G • Finish and self-check

25. Describe how you will dispose of tissue, account for pins, and clean your tools and hands.

26. Your specimen does not exactly match the diagram. Give two possible reasons and explain what you should do before labeling an uncertain organ.

27. Read the lab write-up. List its three drawing tasks. Which drawings require dorsal, ventral, anterior, and posterior labels?
