

Starfish Pre-lab Worksheet

The following worksheet must be successfully completed before you start the actual dissection of the starfish.

Introduction

1. What phylum does the Starfish belong? _____
2. The phylum Echinodermata is composed of the most familiar marine animals and is distinguished by:
 - a. _____
 - b. _____
 - c. _____
3. What class does the starfish belong?
 - a. _____
4. Name four tools that are recommended for this dissection:
 - a. _____
 - b. _____
 - c. _____
 - d. _____

External Features

5. Name and describe the opening of the water vascular system
 - a. _____
6. The mouth is in the center of the underside surface. This surface is also known as:
 - i. _____
 - ii. _____
7. What are the deep furrows extending from the mouth to the tips of each arm called?

8. What do these deep grooves contain? _____
9. At the end of each arm or ray, what is located? _____
10. In preserved specimens how can these items be seen?
 - a. _____
11. On the aboral surface, the dorsal side, ossicles of endoskeleton are located. What is another name for these plates? _____
12. Where are the dermal brachiae and what is their function?
 - a. _____
13. What are the pedicellaria, what is there function?
 - a. _____

Beginning the dissection

14. What systems will we study during this dissection?

- a. _____
- b. _____
- c. _____
- d. _____

Skeletal:

15. What is the first cut you are told to make in this dissection?

- a. _____

Digestive:

16. Read and describe in your own words the dissection that takes place to view the digestive system:

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____
- f. _____
- g. _____
- h. _____
- i. _____
- j. _____

Reproduction:

- 17. Are the sexes separate or are both sex organs in the same animal? _____
- 18. What is the term that describes this? _____
- 19. What must be done to reveal the gonads? _____
- 20. The size of the gonads will depend upon: _____
- 21. Where does fertilization take place? _____
- 22. What type of reproduction is regeneration? _____

Water-Vascular:

23. Describe the water vascular system from the madreporite to the tube feet:

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____
- f. _____
- g. _____

Nervous System:

24. Are the nerves easy or difficult to find in the dissection of the starfish? _____

25. How is the pattern of nerves similar to the water vascular system? _____

26. How are arm movements coordinated? _____

27. What does the network of nerves on the body wall coordinate?

Natural History

28. Where are starfish most numerous? _____

29. Starfish have been found at depths of _____

30. Some starfish have _____ number of arms.

31. What is used to open the shells of its prey? _____