

Mollusks and Echinoderms

Read chapter 27.1 and 29.1 in your text, pages 721-727 & 763-769. Fill in the blanks (or answer the questions) below using the information you have read.

Mollusks

1. What are the 3 most common classes of mollusks?

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1.) _____ which means _____ mollusks.

examples include: _____ .

2.) _____ which are the _____ shelled mollusks,

examples include: _____ .

3.) _____ which means _____ mollusks.

examples include: _____ .

These mollusks have the most _____ structures and are thought to be the most _____ of all mollusks.

Their foot has evolved into _____ .

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2. Type of habitats where mollusks live:

3. General Characteristics of mollusks:

- some have _____ (such as clams) but others, such as slugs and squid, do not.

- all have _____ symmetry

- all have a _____ (body cavity)

- all have a _____ tract with _____ openings

- all have a muscular _____ and a _____ .

4. What is the purpose of a mantle?

Eating / Digestion:

5. Snails use a _____ to obtain food.

6. What is a radula?

7. Octopuses and squid are _____ and use their _____ to _____ the food they capture with their _____.

8. Other mollusks such as bivalves (clams) are _____.

Reproduction:

9. Mollusks reproduce _____ and most have _____ sexes, although some are _____.

Nervous System:

10. Mollusks have a _____ nervous system. However some of the more advanced mollusks have a _____.

11. Most mollusks have paired _____, however they vary in complexity.

Circulatory System:

12. Mollusks have a _____ circulatory system that usually contains a _____.

13. Compare & contrast: Open Circulatory System and Closed Circulatory System.

Respiratory System:

14. Most mollusks have respiratory structures called _____ .

Gills _____ the surface area through which _____ can
_____. In land mollusks, they have evolved into a primitive
_____ .

Excretory System:

15. Mollusks are the _____ known animals to have evolved
_____ structures called _____ .

16. Mollusks have one or two _____ that collect _____ from
the _____ around the _____. Wastes are discharged
into the _____ and expelled from the body by the
_____ .

Movement:

17. Describe how bivalves and cephalopods move.

Echinoderms

17. The 6 classes of Echinoderms are:

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- 1.) _____ which includes _____ (also known as star fish). About _____ of all echinoderms are in this class.
- 2.) _____ known as the _____
- 3.) _____ which includes _____
- 4.) _____ which includes _____
- 5.) _____ which includes _____
- 6.) _____ which includes _____ which were discovered as recently as 1986.

General Characteristics of Echinoderms:

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2. Describe how echinoderms are able to move.
3. Echinoderm habitat: _____
4. Describe the skin all echinoderms.
5. The endoskeleton of all echinoderms is made of _____ which is the same thing that makes up _____ .
6. What are pedicellariae?
7. All echinoderms have _____ symmetry.

Vascular system:

8. The _____ is a unique characteristic of all echinoderms that enables them to _____ , _____ , _____ , and _____ .

9. The _____ system is a _____ system that operates by _____ .

Movement:

10. Echinoderms move using _____.

Describe their structure.

Excretory / Respiratory systems:

11. Gases are exchanged and wastes are eliminated by _____ through the thin walls of the _____ .

Digestion:

12. All echinoderms have a _____ , _____ , and _____ , but their method of obtaining food _____ .

Some are _____ and eat other animals, some are _____ and eat algae, and some are saprophytes because they eat _____ matter.

Nervous System:

13. Echinoderms have a _____ nervous system.
14. Echinoderms have NO _____ or _____, but they do have a _____ that surrounds the _____.
15. _____ extend from the _____ down each ray.
16. Each nerve branches into a _____ that provides sensory information to the animal.
17. Echinoderms have cells that detect _____ and _____, but most do not have _____.

Evolutionary Relationships:

18. Because of their pattern of embryonic development, echinoderms are thought to be the _____ relatives of the _____ (which then evolved into vertebrates).