

Mollusks (p. 642 – 650)

I. A True Coelom

1. Snails, clams, and octopuses make up the phylum Mollusca.

2. What type of body plan do mollusks have?

Circle One : Acoelomates Coelomates Pseudocoelomates

3. Define the term trochophore.

Trochophore – free-swimming, ciliated larval stage of mollusks + annelids (Common ancestor)
(Body cavity located entirely within mesoderm)

4. Mollusks inhabit marine and freshwater, and ~~but not~~ terrestrial environments.

Circle One : True False

II. Key Characteristics Of Mollusks

1. Which type of symmetry do mollusks exhibit?

Circle One : Bilateral Radial

2. Match the anatomical terms with the correct definitions.

- | | |
|----------------------------|---|
| 1. <u>D.</u> Visceral Mass | A. Hard covering made of calcium carbonate. |
| 2. <u>B.</u> Mantle | B. Fold of tissue that cover most mollusk bodies. |
| 3. <u>E.</u> Foot | C. Tongue-like organ with razor-sharp teeth. |
| 4. <u>A.</u> Shell | D. Central section that contains mollusk organs. |
| 5. <u>C.</u> Radula | E. Primary means of mollusk locomotion. |

3. Mollusks have segmented bodies.

Circle One : True False

4. Circle the letter of the sentence that is false about mollusks.

- a. Mollusks have a one-way digestive system.
 b. Nephridia are excretory organs of mollusks that reabsorb sugars, salts, and water.
 c. All mollusks have a three-chambered heart and an open circulatory system.
 d. Most mollusks have some form of gills, except snails, which have a primitive lung.
 e. Most mollusk species reproduce sexually with separate sexes.

III. Body Plan Of Mollusks

1. What does the word gastropod mean? *(Not in the book.)*

"Stomach-Foot"

2. List four examples of gastropods.

1. Snails 2. Slugs 3. Nudibranches 4. Sea Hares
(Sea Butterflies)

Open Circulation
 - Snails, Clams
 Closed Circulation
 - Octopuses, Squids

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3. What types of habitats do gastropods inhabit? Marine, Freshwater, Terrestrial

4. Gastropods do ~~not~~ have shells.

Circle One : True False

4. What type of foot do gastropods have? Flat muscular foot on ventral side

5. Identify gastropods with the following feeding styles.

Herbivore : Snails

Carnivore : Sea Slugs, Whelks, Oysters, Cone Shell

6. List four examples of bivalves.

1. Clams 2. Oysters 3. Mussels 4. Scallops

7. What types of habitats do bivalves inhabit? Marine (Some freshwater)

8. Define the term adductor muscles.

Adductor Muscles - thick muscles that connect valves

9. Circle the letter of the sentence that is false concerning bivalves.

a. Bivalves have two-part hinged shells.

b. Bivalves do not have a distinct head region or any form of brain. nerve ganglion

c. Most bivalves are filter feeders.

d. Bivalves possess a muscular, spade-like foot that helps them burrow into mud.

10. Define the term siphons.

Siphons - hollow tubes that move water in + out of mollusks
(water passes over gills)

11. How do pearls form?

- Grain between mantle + shell and covered in nacre

12. What does the word cephalopod mean? (Not in the book)

"Head-Foot" (NAV. Kahr)

13. List four examples of cephalopods.

1. Octopuses 2. Squids 3. Cuttlefish 4. Nautilus

14. Most cephalopods lack external shells.

Circle One : True False

Nautilus - only living shelled cephalopod

15. What type of foot do cephalopods have? Tentacles or arms

16. Circle the letter of the sentence that is false concerning cephalopods.

a. Cephalopods are the most intelligent invertebrates.

b. Cephalopod eyesight is much poorer than vertebrate vision. similar to

c. When threatened, squids and octopuses use jet propulsion and ink discharge to escape.

d. Cephalopods are active, marine predators.