

Chapter 28-2

1. What are three important characteristics that arthropods have?

Segmented body Tough exoskeleton Appendages

2. Complete the table.

Groups of arthropods	Crustaceans	Chelicerates	Uniramians
ex. of organisms	crabs, lobsters, shrimps, prawns, barnacles, crayfishes	horseshoe crabs, spiders, scorpions, mites, ticks	centipedes, millipedes, insects
# of body segments	2 or 3	2	3
name of body segments	cephalothorax abdomen	cephalothorax abdomen	head, thorax abdomen
# of pair of antennae	2	0	1
# of pair of walking legs	varies (crayfish: 5)	4	3
feeding parts	mandibles (maxillae) (maxillipeds)	chelicerae (pedipalps)	jaw

3. How do terrestrial arthropods breath?

Most breath through a network of branching tracheal tubes that extend throughout the body. Air enters and leaves the tracheal tubes through spiracles which are small openings located along the side of the body.

4. How do aquatic arthropods breath?

Through gills

5. Complete the sentences:

a) Arthropods have a(n) opened (opened/closed) circulatory system.

b) Terrestrial arthropods dispose of nitrogenous wastes using Malpighian tubules which are sac like organs that extract wastes from the blood and then add them to the digestive waste.

c) Aquatic arthropods extract their wastes by diffusion.

6. Do arthropods have a brain? yes

7. a) What are compound eyes? **They are eyes composed of thousands of different lenses and permit to detect color and motion.**

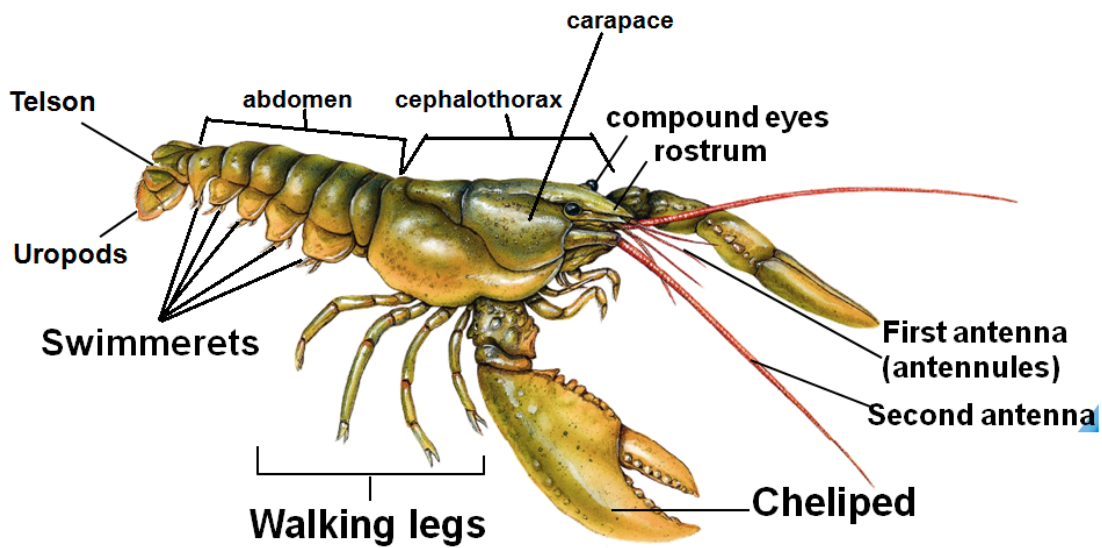
b) Do mollusks have compound eyes? **__no__**

8. To what are attach the muscles of the arthropods? **To the exoskeleton.**

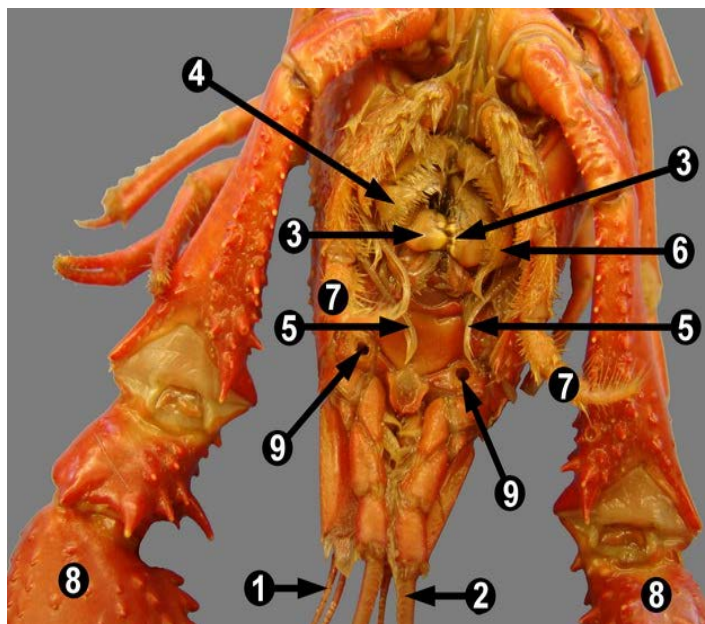
9. How do arthropods grow, knowing that their exoskeleton does not grow?

Their exoskeleton undergoes a period of molting. During molting the entire exoskeleton is shed and a new larger skeleton is formed.

10. Identify the external anatomy of the crayfish.



11. Identify the following numbers on the mouth parts of the crayfish.



- 1. Antennules
- 2. Antennae
- 3. Mandibles
- 4. Maxillae
- 5. Maxillipeds
- 6. Maxillipeds
- 7. Maxillipeds
- 8. Chelipeds