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((Invertebrates))

2 stage

Lecture Four

Phylum Arthropoda

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General Characterizations of arthropoda

- 1 – Arthropoda is the largest phylum 85 % of all organisms**
, arthropoda are invertebrates live aquatic and terresterial organisms .
- 2 - Some of them free living , others are parasitic .**
- 3 – Body is segmented (head , thorax and abdomen), bilateral symmetrical .**
- 4 - Arthropoda possess exoskeleton with cuticle made of chitin (glucose + minerals + cellulose + protein) changed every year .**
- 5 – Arthropoda /(arthro) jointed / poda (means feet)help in locomotion .**
- 6 – They contain sensory organs like hair (antennae) , auditory organs , and head bear pair of compound eyes .**
- 7 - Arthropoda have open circulatory system only coelomic cavity filled with blood .**
- 8 – Arthropoda have very developed digestive system .**



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Classes of Arthropoda :

1 – Crustacea class 2 - Insecta class 3 - Arachnida class 4 – Myriapoda class

Crustacea : Crust (Latin word) = hard scales

1 – Crustacea ; Invertebrates aquatic living in sea and water river moist soil others are parasitic ..

2 – Have two pairs of antenna located on the 1st or 2nd segments , and five pairs of appendages

3 - One pair mandibules with two pairs of jaw called maxillae .

4 – One pair nephridia which involved with excretion .

5 – Heart and some vessels occur in haemocoel to circulate blood .

6 - Respiration occurs through gills or general body surface .

7 – They have pair of compound eyes .



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Types of Crustaceans

Shrimps (Shellfish) , Crab , Lobester

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Lobester





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Crab

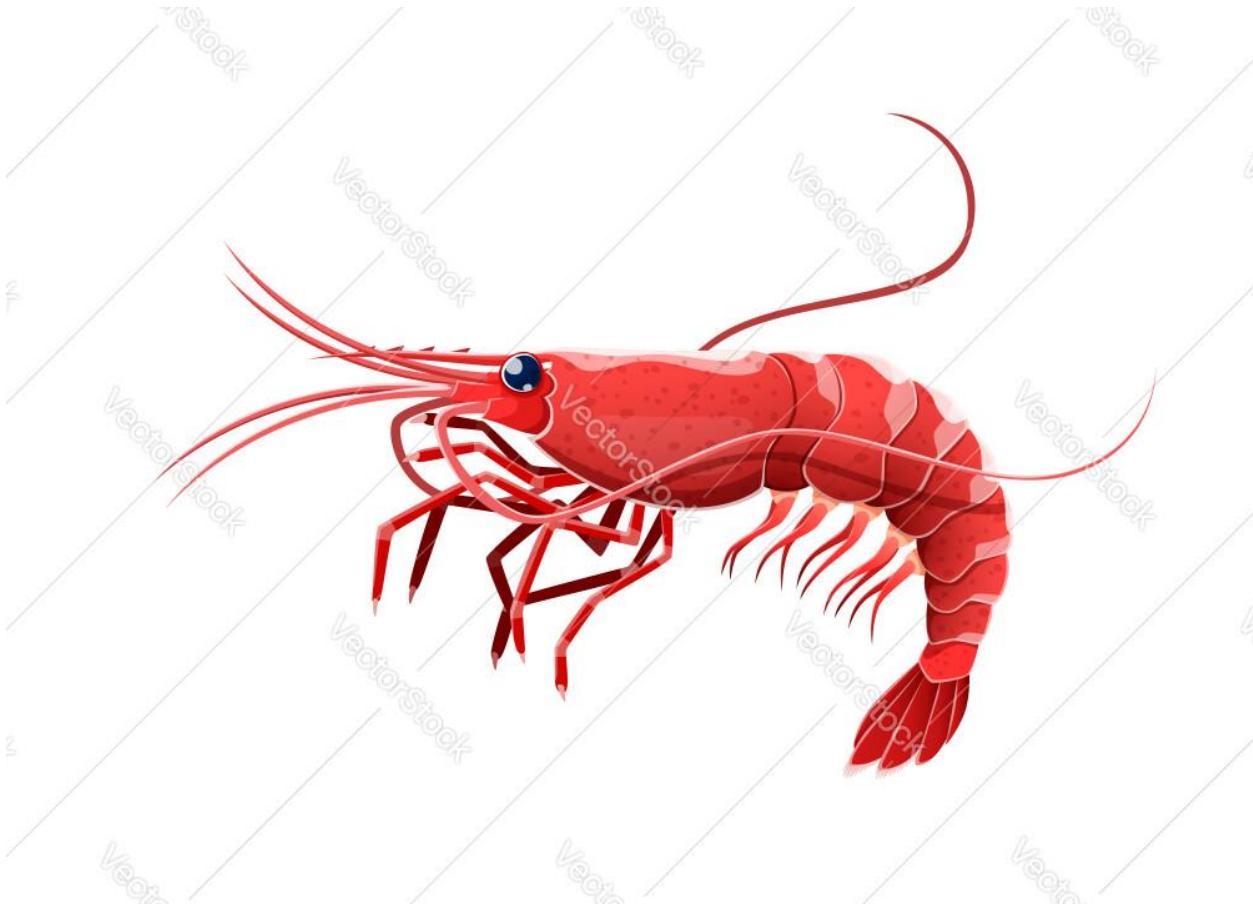




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Shrimp or Shellfish

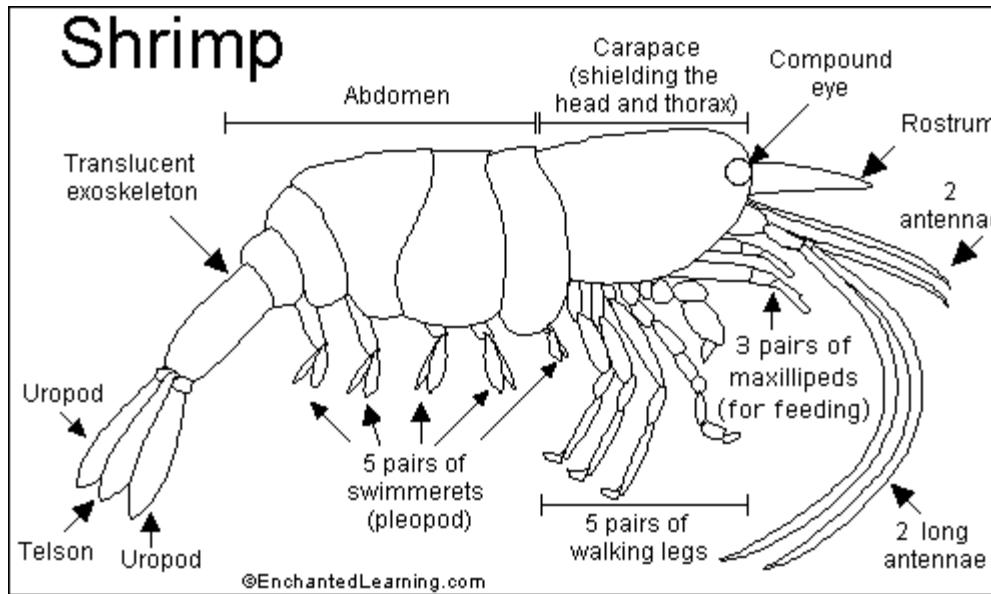


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Shrimp or Shellfish :

1 – Segmented invertebrates Free living swimming crustacean animal have



an

elongated body marine living .

2 – Have narrow muscular tail with thin segmented legs for walking 5 pairs found in cephalorax other 5 pairs in abdomen for swimming .

3 - Two pairs of long antennae

4 - Thousand species of shrimp harvested for food for human and large animals .

5 - Its length range 2 cm - 25 cm .

6 - Have narrow muscular abdomen with long antennae

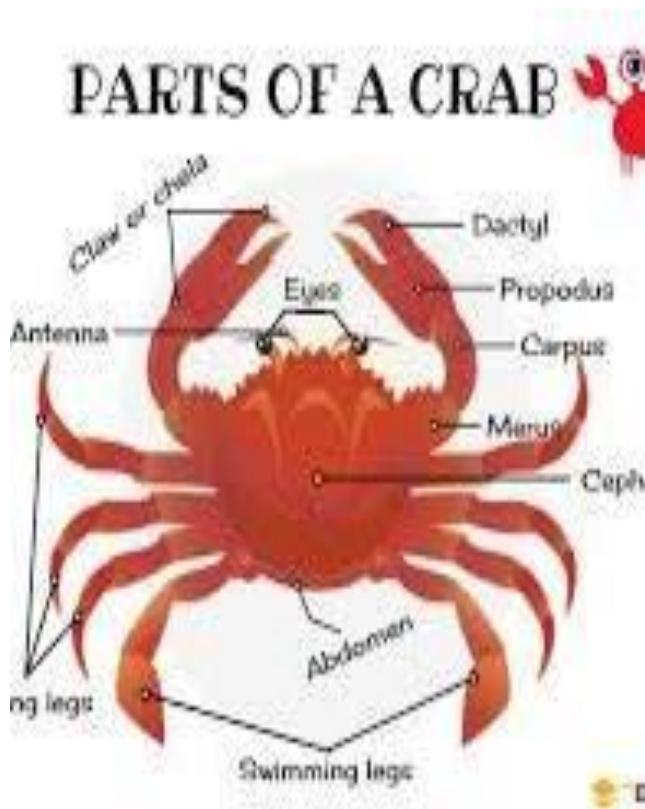
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Crab :

- 1 – It is crustacean has short projection tail .
- 2 - Abdomen usually hidden under thorax .



- 3 - Crabs live in world oceans and in fresh water .
- 4 - Have thick exoskeleton (highly mineralized flattened shell made up of chitin .



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5 – They have six legs (3 pairs for walking) and two (one pair) for swimming .

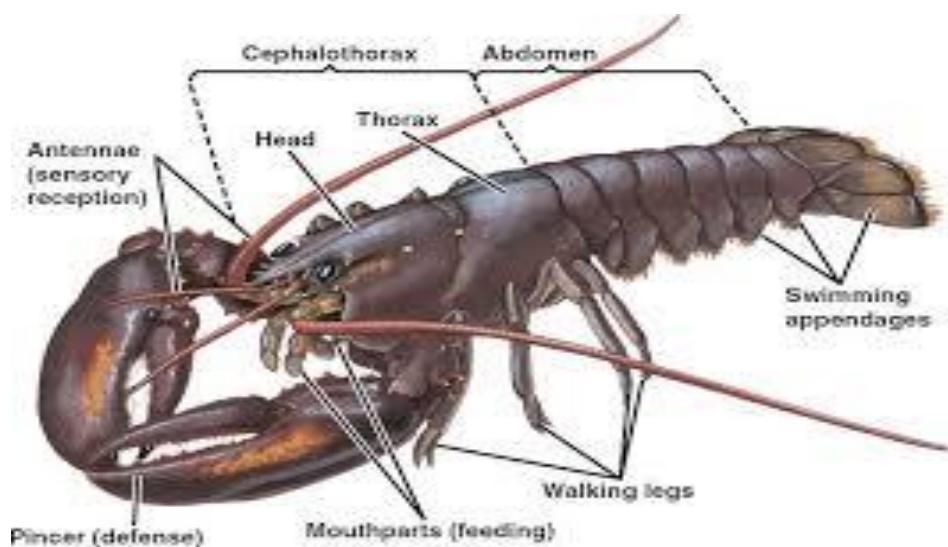
6 – The crabs breathes through gills .

7 - Crabs vary in size from (few millimeters for pea crabs till 4 meters for japans crabs .

8 – 7000 species of crab live in salty water and 1300 species live

Lobsters :

1 – It is crustacean animal live in the sea water , the crayfish resemble to lobster but smaller and live fresh water .





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2 - Lobsters are marine scavenge for dead animals but also eat live fish small molusca .

3 - Lobster has rigid , segmented body covering exoskeleton , have three pairs appendages for swimming .

4 - Lobster have compound eyes on movable stalks with two pairs of antennae .

5 - There are three pairs of walking legs on the elongated abdomen .

6 - Claws are found on the first three pairs of legs but the largest claw on the first pair .

7 - Most lobsters species live in polar seas , great depth sea (366 meter) and found around south Africa .

8 - Its length 13 cm - 25 cm .

Quiz : Compare : Shrimps , Crab , Lobster ?

Only differences ?

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