

Phylum Arthropoda

- 1. Most biologically successful and abundant animal group on earth.
- 2. There are more arthropod species than all other species combined.
- 3. There are 1 million known species.
- 4. Symmetry is bilateral.
- 5. Small coelom.
- 6. Jointed appendages for efficient locomotion.



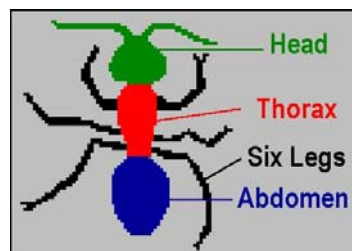
7. Exoskeleton that provides:

- (a) protection of internal organs
- (b) waterproof covering allowing many to live on dry land (so they do not dry out)



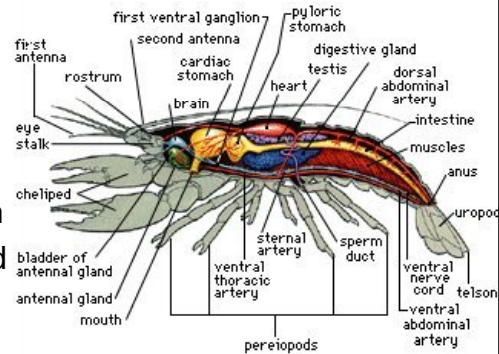
8. Segmented body with parts modified and fused to form specific body regions:

- (a) head - anterior
- (b) thorax - middle
- (c) abdomen - posterior



9. Possess a variety of well developed systems:

- a) Digestive
- b) Respiratory
- c) Excretory
- d) Reproductive
- e) Skeletal
- f) Circulatory - open system
- g) Nervous - well developed with the following features:



- (i) distinct brain
- (ii) ventral nerve cord
- (iii) sense organs such as eyes, auditory organs, sensory bristles, and antennae that touch and sense chemicals

10. The most successful class is class Insecta with 900,000 known species.

- Nearly all are terrestrial with a few freshwater and saltwater forms
- Size range is broad; from 0.25 mm for some species of beetles and up to 30 cm for some tropical moths



The success of insects is credited to the following reasons:

- (1) They are the only invertebrates capable of flying. This allows them to move over great distances to find food, escape predators, and spread to new environments.
- (2) There is tremendous variation in how they are adapted for feeding and reproduction, so they can exist in all kinds of environments and obtain nourishment from many sources.



More Reasons

- (3) High rate of reproduction and short life cycle. This increases the ability of insects to adapt.
- (4) Small in size. This means they don't need large areas to live.
- (5) Social insects
- (6) Variations in body form

