

## Arthropoda (Subphylum Uniramia)

### FIGURES TO KNOW:

#### Phylum Arthropoda (Subphylum Uniramia):

Table 8. I - 20 orders in two subclasses; know the 9 Pterygota in caps.

Fig. 8.1 - types and stages of the two types of metamorphosis

Fig. 8.2 - know that insect mouthparts are appendages, too.

Fig. 8.3 - label & know all

Fig 8.4- ganglia

Fig. 8.5 - body tagma, all parts except leg parts

Fig. 8.6 - all

Fig. 8.8 - be impressed with the *extensiveness* of the insect tracheal system

Fig. 8.9 - all, except sperm duct

Fig. 8.10 -all, except ventral nerve cord, ganglion, lateral oviduct & genital atrium

Appendix C (p180-183)- use as reference to help with the 9 insect orders

# ARTHROPODA

## Subphylum #3: UNIRAMIA (3 classes)

### Class 3: Insecta (2 subclasses)

#### Subclass 1 : PTERYGOTA (2 divisions)

6 walking legs  
Trachae/tracheoles  
Malpighian tubules

**Division:** Hemimetabolous Egg – nymph - adult

#### EXOPTERYGOTA Wings develop on OUTside

Isoptera Termites  
Hemiptera True bugs  
Odonata Dragonflies & Damselflies  
Homoptera Aphids, Cicadas & Leafhoppers  
Orthoptera Grasshoppers, Crickets,  
Cockroaches & Mantids

### Class 2: Diplopoda

Millipedes

2 pair of walking legs  
Herbivorous  
Poisonous

#### Subclass 2 : APTERGOTA

Silverfish  
Wingless  
Ametabolous no metamorphism  
Primitive

**Division:** Holometabolous  
Eggs – larva – pupa - adult

#### ENDOPTERYGOTA

Wings develop on INside

Diptera Flies  
Coleoptera Beetles  
Lepidoptera Butterflies & moths  
Hymenoptera Ants, bees & wasps

### Class 1: Chilopoda

Centipedes

1 pair walking legs per segment  
Predatory  
Venomous

