

Arthropoda

Most diverse Phylum

The total _____ of arthropod species exceeds the number of other animal phylum

900,000 have been recorded

Probably the same number are not found yet

There are more _____ species that
there are of all _____

Arthropods means “_____” “_____”

Like annelids have a coelom and

Appendages- structures that _____ from
the arthropod's body wall

Have joints and bend

_____ for walking

Antennae for sensing _____

Mouthparts

Majority are small

Size range from 80 micrometers to 3.6 meters



http://www.afsc.noaa.gov/race/media/photo_gallery/invert_files/Red_king_crab.htm



http://biology.arizona.edu/sciconn/lessons2/Geiger/Picpages/parasitic_mites_and_blue_mold.htm

Arthropods are divided into two groups
Subphylum Urinaria- with _____

Subphylum Chelicerata or Subphylum
Crustacea with _____ and pinchers

Characteristics of Arthropods

_____ Appendages

Segmentation

Distinct _____, often with compound eyes

Exoskeleton

Tracheae and spiracles

Open _____ system

Malpighian tubules

Segmentation

Sometimes only _____ during the
larval _____

Example caterpillar vs butterfly

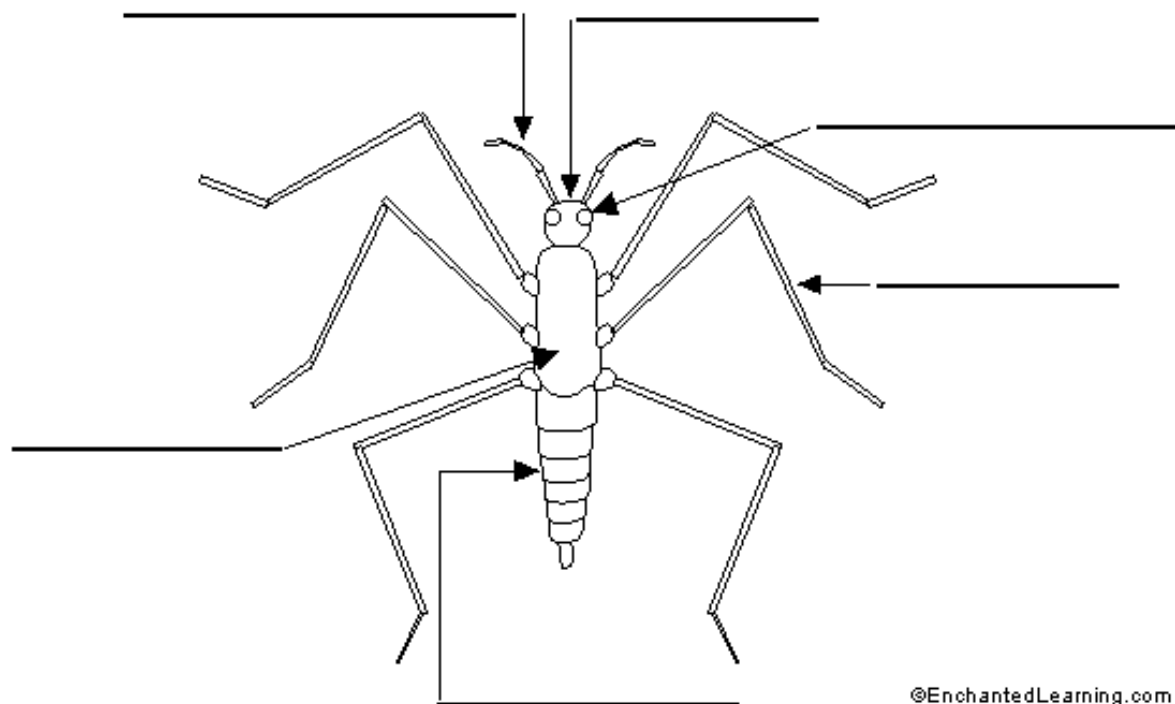


[http://www.foagm.org/Album_02-07/caterpillar%20\(ID_\).jpg](http://www.foagm.org/Album_02-07/caterpillar%20(ID_).jpg)

Adults have three distinct regions

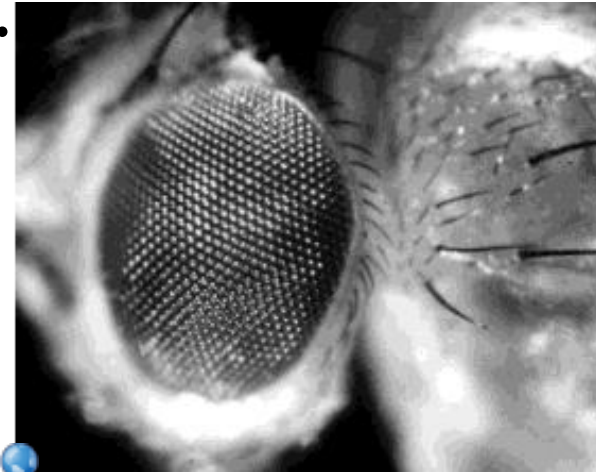
Head Thorax Abdomen

Some have a cephalothorax- head and thorax fused



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Compound eye- an eye made of thousands of individual visual units each with its own lens and retina. The brain received images from each and pieces them together.



[http://users.rcn.com/jkimball.ma.
ultranet/BiologyPages/C/CompoundEye.html](http://users.rcn.com/jkimball.ma.ultranet/BiologyPages/C/CompoundEye.html)

Image is fuzzy but motion is
seen quicker.

Why is this important?

Some have single eyes, some
have compound eyes, and
some have both

Exoskeleton

The shell is _____ and flexible
where the _____ are

Exoskeleton protects an arthropods
from _____ and helps prevent
_____ loss

The skeleton can not grow larger so they need to shed and discard their exoskeleton (_____)

Triggered by a release of _____.

The new skeleton is beneath and still soft.

The new skeleton then hardens.

Respiration

Tracheae- a network of fine _____

Air enters through the spiracles and
passes into the tracheae delivering
_____ to the body

Excretion

Malpighian tubules- slender
fingerlike extensions from the
arthropod's _____ that are bathed by
the _____ that surrounds them