

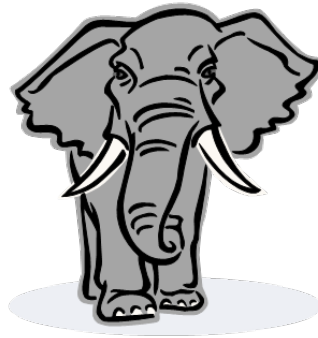
## Compare and Contrast



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(www.caudata.org)



<http://www.caudata.org/daphnia/>



Feb 28 - 7:40 PM

When Linnaeus classified animals in the 1700's, he counted 4,236. There are now over a million.

Many animals are important to each other. Give an example.

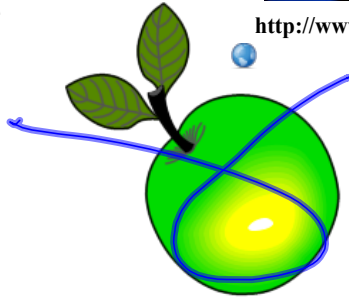
fish → shark      rabbit → wolf  
bee → butterfly      mouse → snake

Feb 28 - 7:43 PM

Heterotrophy - they cannot make their own food



<http://www.imagequest3d.com/photos/zooplankton/index.htm>



Feb 28 - 7:45 PM

Mobility - They can perform rapid, complex movements. Some can walk, swim, Crawl, run, and fly.



Feb 28 - 7:50 PM

Multicellularity-all animals are multicellular, some are microscopic and some are as big as city buses. There is little difference in cell size.

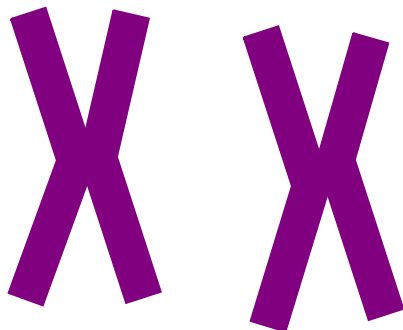


<http://www.caudata.org/daphnia/>



Feb 28 - 7:53 PM

Diploidy-animals have 2 copies of each chromosome, one from the father and one from the mother



Feb 28 - 7:55 PM

Sexual Reproduction-  
almost all animals

reproduce sexually

Absence of cell wall- of the  
multicellular organisms only

animals lack a cell wall

Feb 28 - 7:58 PM

Choose an animal and give  
evidence for each of the following.

**Heterotrophic**

**Mobility**

**Multicellular**

**Diploidy**

**Lacking Cell Walls**

**Sexual Reproduction**

Feb 28 - 8:00 PM

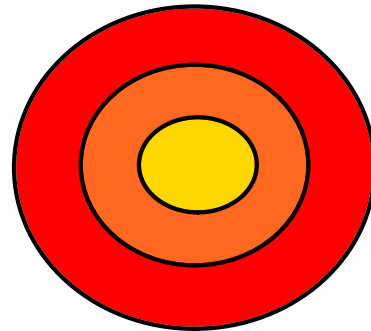
Blastula-hollow ball of cells



Ectoderm- outer layer of tissue

Mesoderm- middle layer of tissue

Endoderm- inner layer of tissue



Feb 28 - 8:23 PM

**Ecto**

Skin

Eyes

Nervous  
System

**Meso**

Veins

Muscles

Skeleton

**Endo**

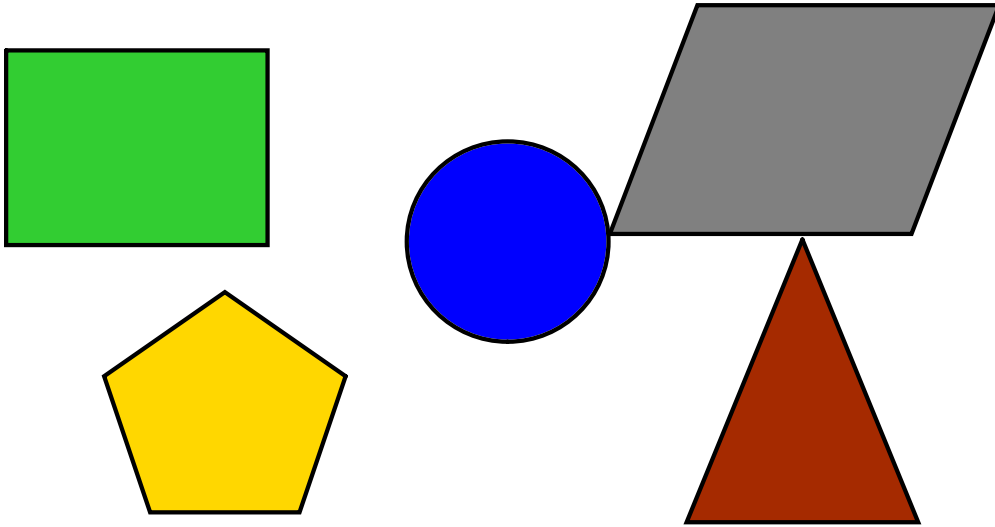
Lungs

Glands

Stomach

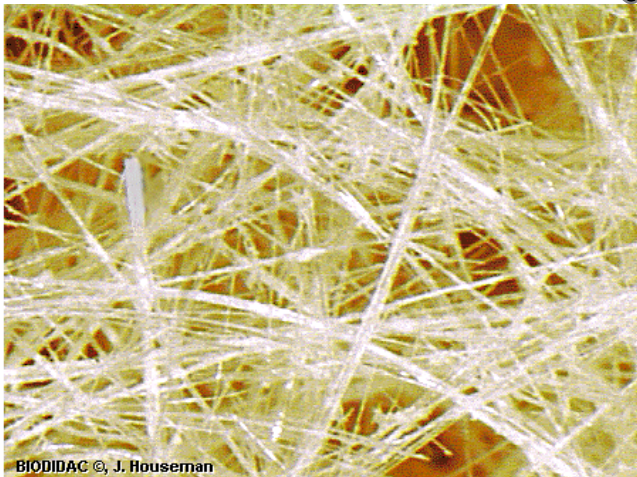
Feb 28 - 8:30 PM

Body Plan- a term used to describe an animals shape.



Mar 2 - 5:21 PM

Asymmetrical- irregular in shape

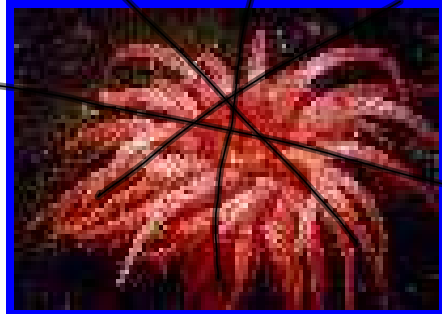
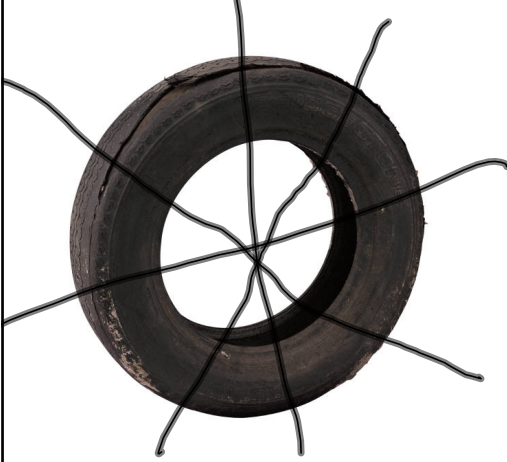


BIODIDAC ©, J. Houseman

<http://cas.bellarmine.edu/tietjen/images/HEXA004P.GIF>

Mar 2 - 5:24 PM

Radial symmetry- body parts all arranged around a central axis



<http://www.cyhaus.com/marine/anemone.htm>

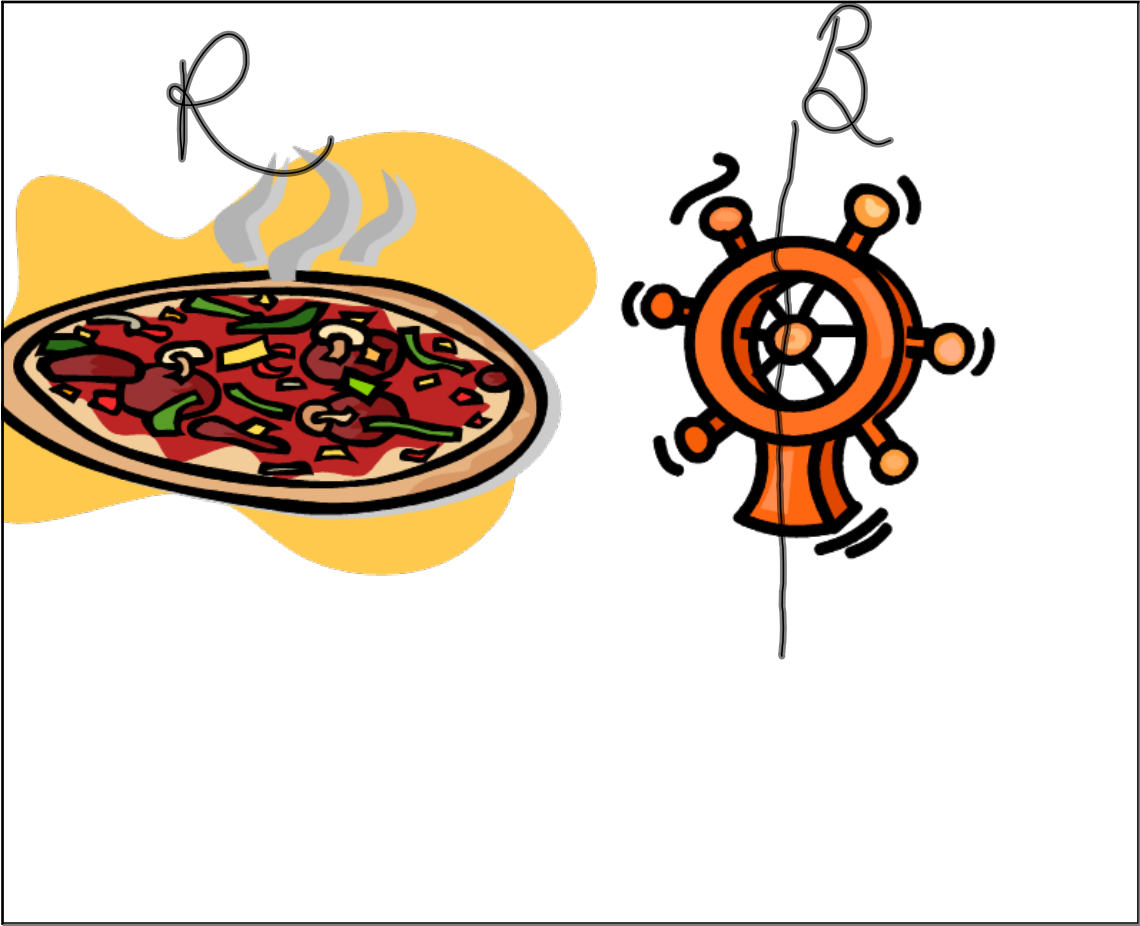


Mar 2 - 5:28 PM

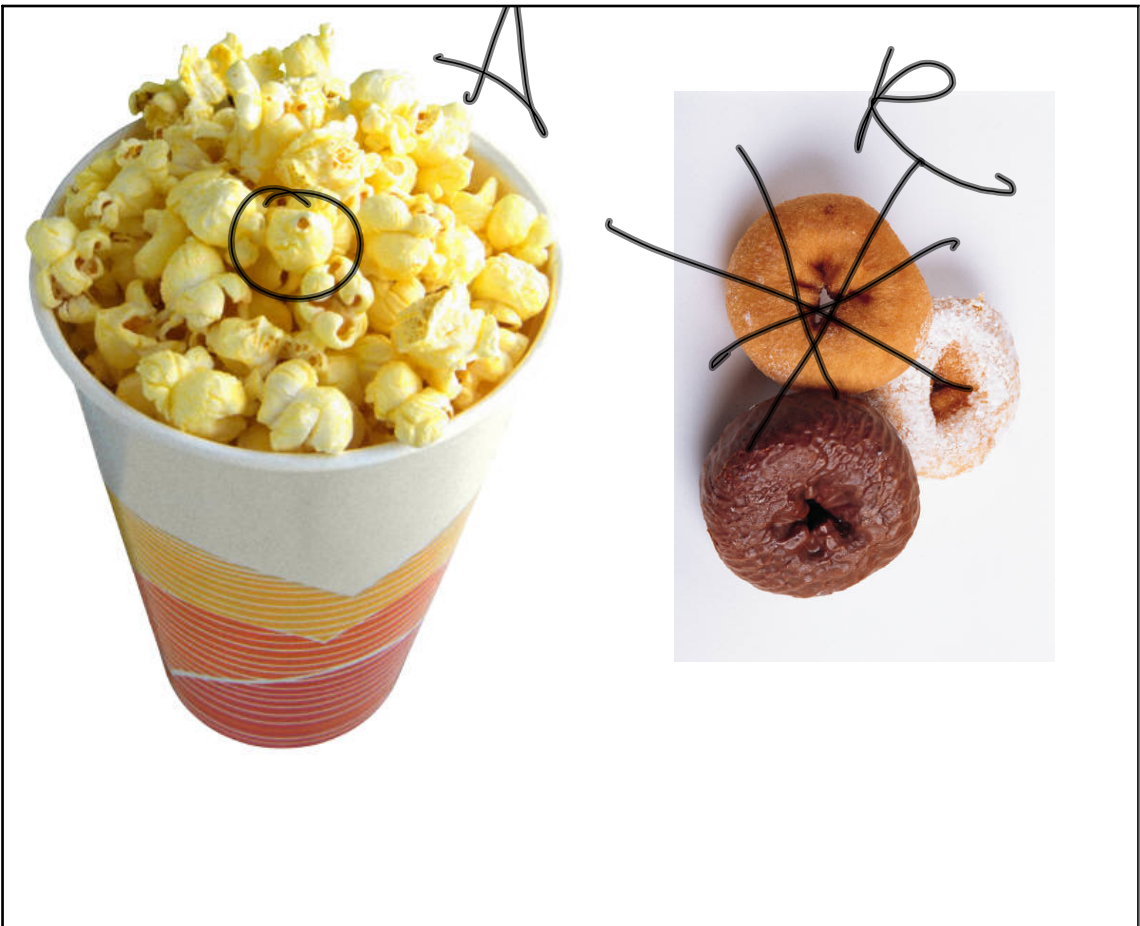
Bilateral Symmetry- distinct left and right halves



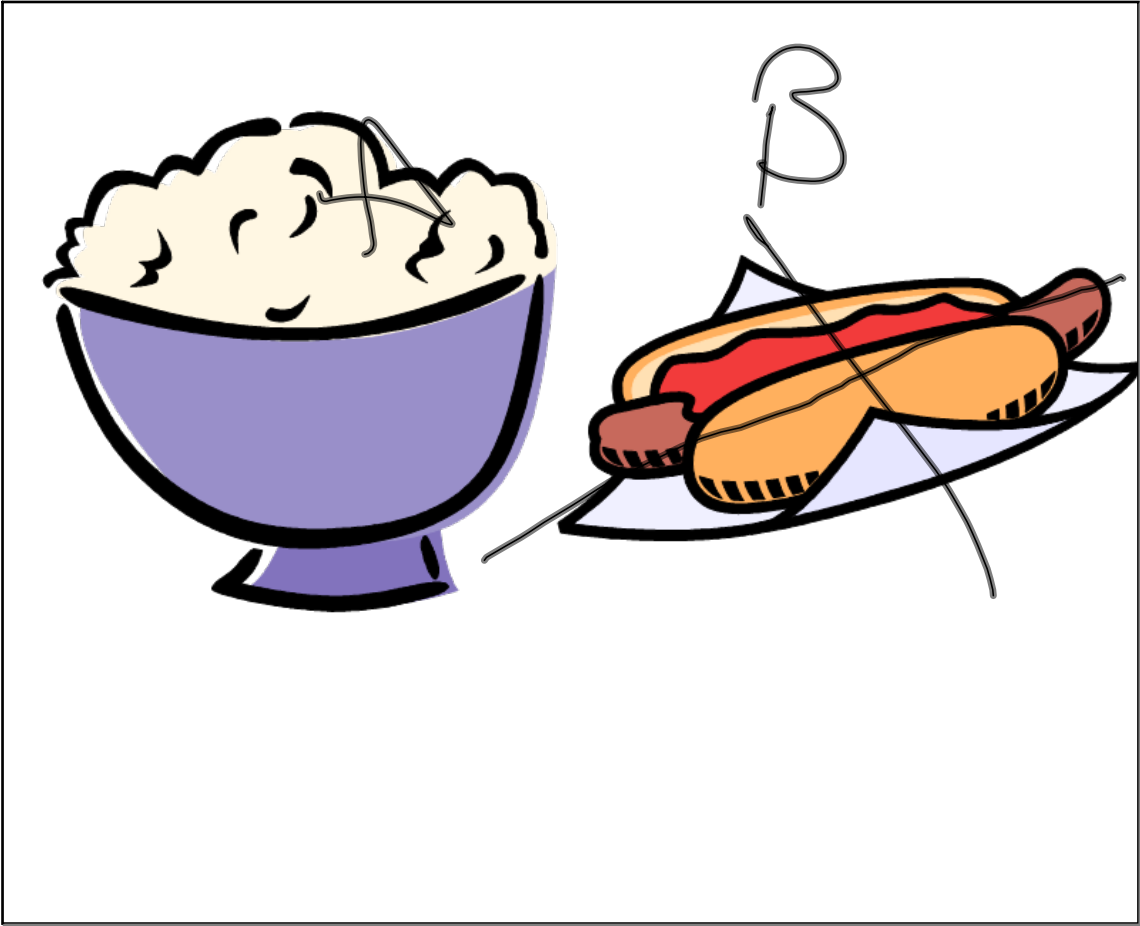
Mar 2 - 5:31 PM



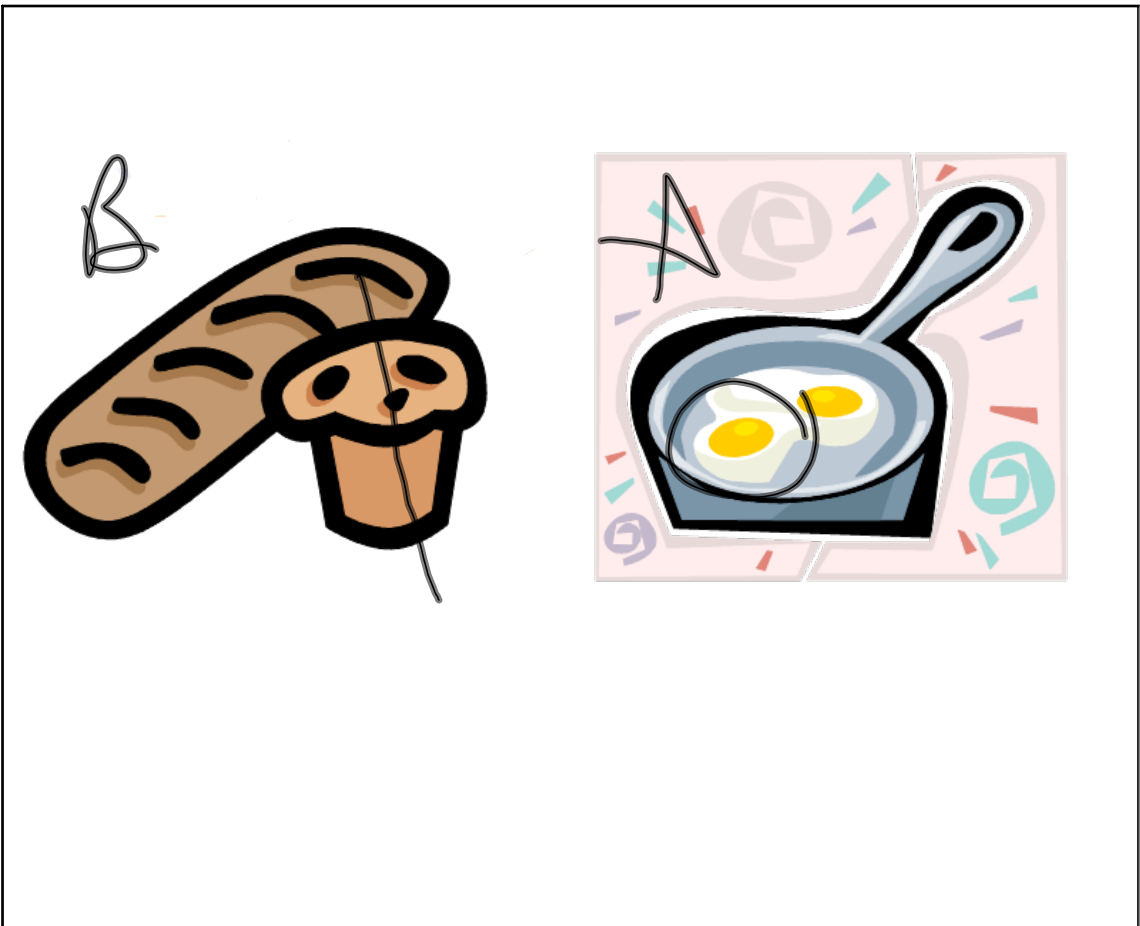
Mar 2 - 5:27 PM



Mar 2 - 5:29 PM



Mar 2 - 5:33 PM

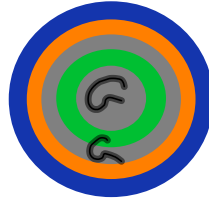


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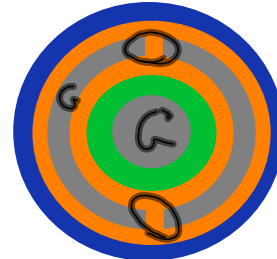
Bilaterally symmetrical animals have one of three basic body plans.  
Body Cavity Types



Acelomates



Pseudocoelomates



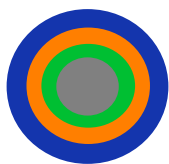
Coelomates

Key

Gut, cavity	Mesoderm
Endoderm	Ectoderm

Mar 3 - 12:58 PM

Acelomates- animals with no body cavity



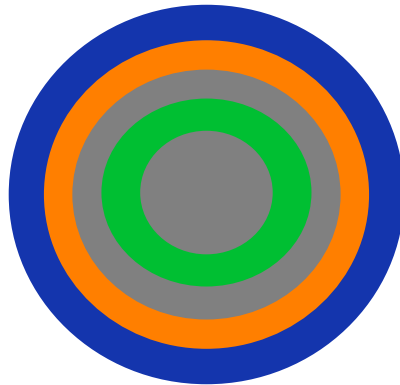
The space between the gut and the wall is completely filled with tissue.

Gut  
Endo  
Meso  
Ecto

Mar 3 - 2:59 PM

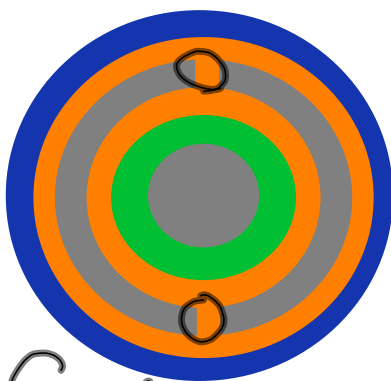
Pseudocoelomates- have a body cavity located between the mesoderm and the endoderm.

Gut  
Endo  
Gut  
Meso  
Ecto



Mar 3 - 3:01 PM

Coelomates- a body cavity located entirely within the mesoderm.



The gut and other organs are suspended in the coelom.

Gut  
Endo  
Meso  
Gut  
Meso  
Ecto

Mar 3 - 3:02 PM

Advanced organism show segmentation.

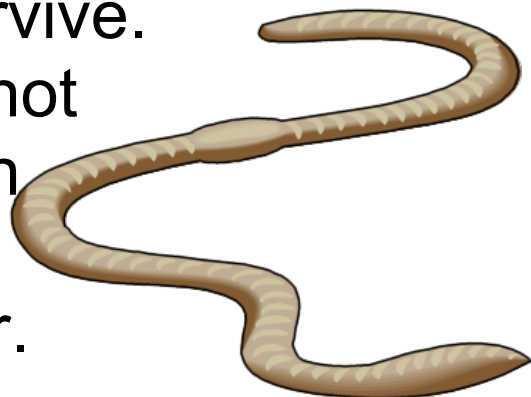
Where is the segmentation in humans?

Vertebrae

Mar 3 - 3:03 PM

In an earthworm each segment repeats many of the organs so injured animals can still survive. The segments are not independent though materials still pass from one to another.

How?



Mar 3 - 3:05 PM

Phylum	Evolutionary Milestone
Chordata	Notocord
Echinodermata	Deuterostomes
Arthropoda	Jointed Appendages
Annelida	Segmentation
Mollusca	Coelom
Nematoda	Pseudocoelom
Platyhelminthes	Bilateral Symmetry
Cnidaria	Tissues
Porifera	Multicellularity