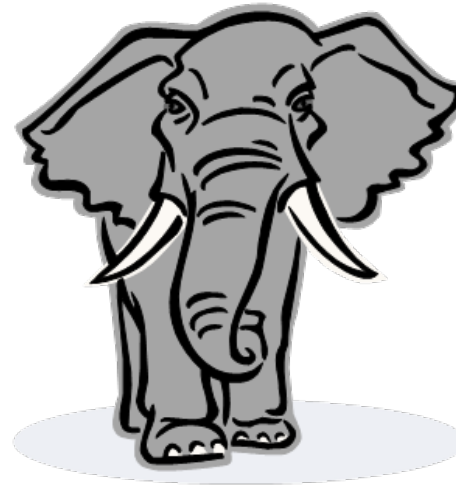


# Compare and Contrast



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



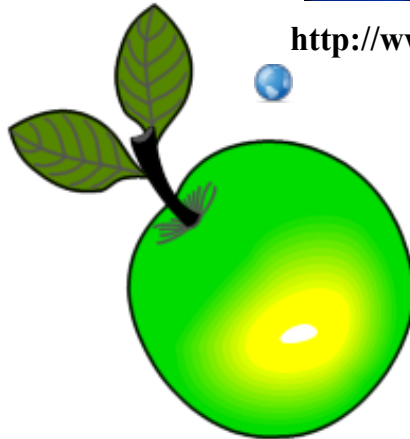
When \_\_\_\_\_ classified animals in the 1700's, he counted \_\_\_\_\_. There are now over a million.

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

\_\_\_\_\_ -they cannot make  
their own \_\_\_\_\_



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



\_\_\_\_\_ -They can perform  
rapid, complex  
\_\_\_\_\_. Some can walk,  
swim, \_\_\_\_\_, run, and fly



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



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



Diploidy-animals have \_\_\_\_\_  
copies of each chromosome, one  
from the \_\_\_\_\_ and one from the  
mother



Sexual Reproduction-  
almost all animals  
\_\_\_\_\_ sexually

Absence of \_\_\_\_\_ wall- of the  
multicellular organisms only  
animals \_\_\_\_\_ a cell wall

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

**Heterotrophic**

**Mobility**

**Multicellular**

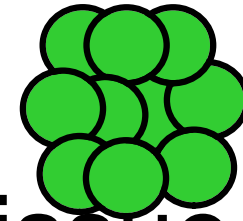
**Diploidy**

**Lacking Cell Walls**

**Sexual Reproduction**



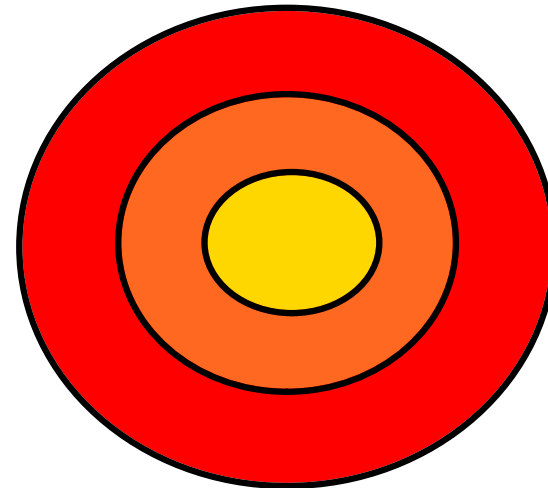
Blastula-hollow ball of cells



Ectoderm-\_\_\_\_\_ layer of tissue

Mesoderm-\_\_\_\_\_ layer of tissue

Endoderm-\_\_\_\_\_ layer of tissue



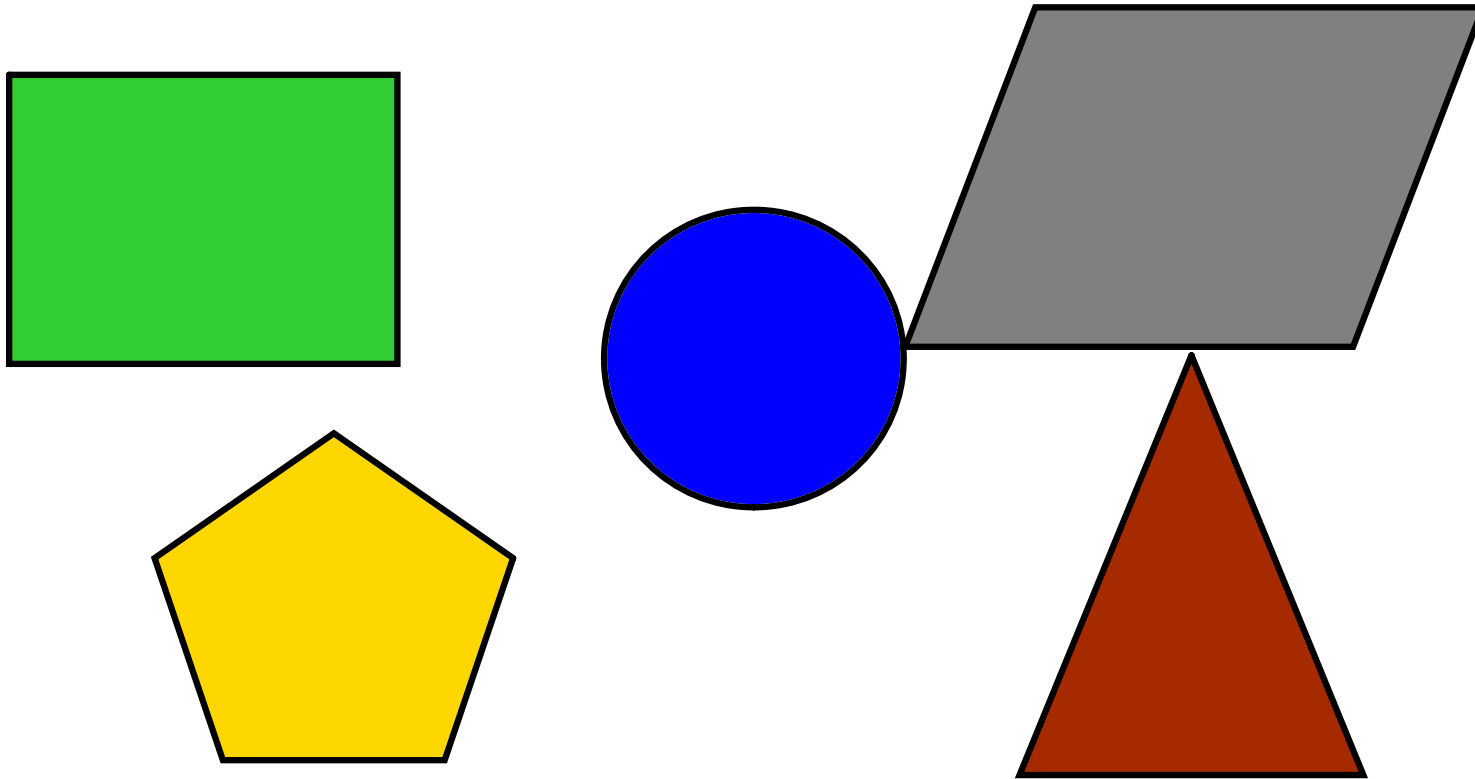
Ecto

Meso

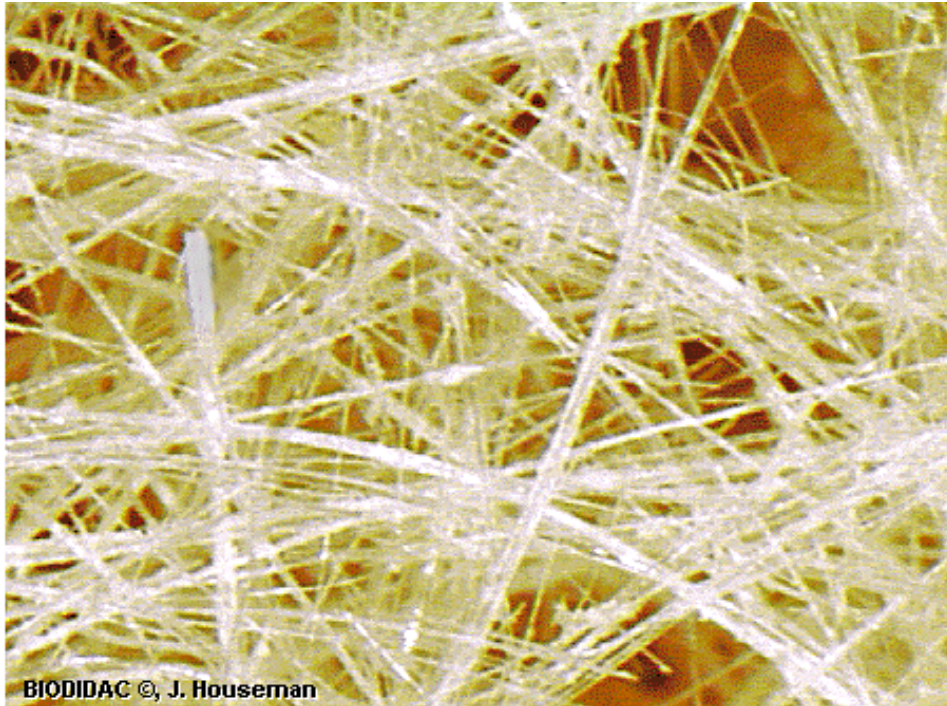
Endo

Muscles  
Veins Skin Eyes Stomach  
Skeleton  
Lungs Glands  
Nervous System

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



Asymmetrical-\_\_\_\_\_ in shape



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



\_\_\_\_\_ symmetry- body parts all  
arranged around a \_\_\_\_\_axis



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



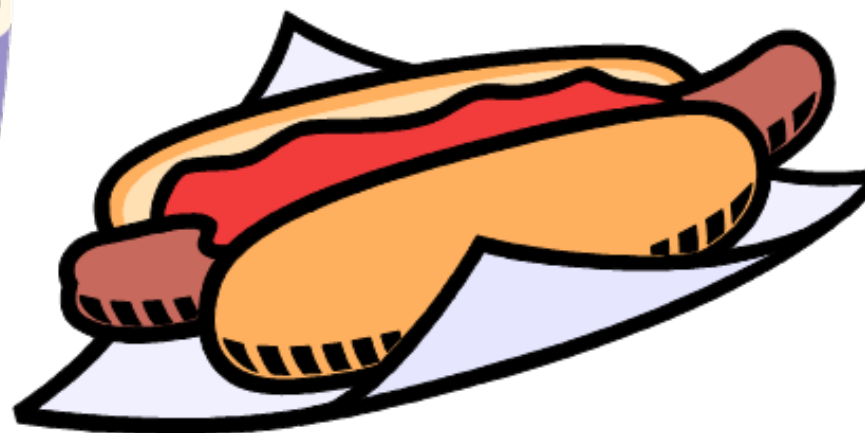
Bilateral Symmetry- distinct  
\_\_\_\_\_ and \_\_\_\_\_ halves







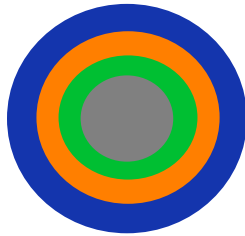




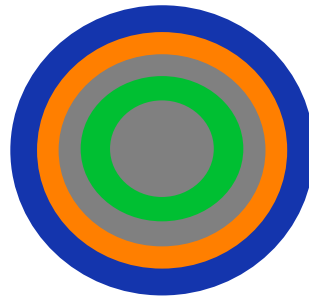


# Bilaterally symmetrical animals have one of three basic body plans.

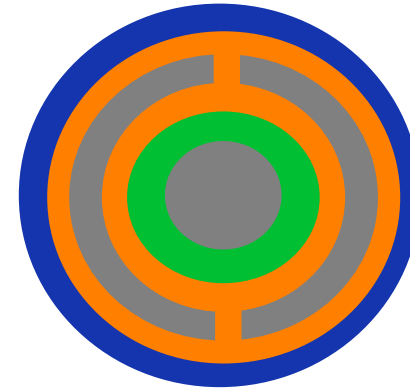
## Body Cavity Types



Acelomates



Pseudocoelomates



Coelomates

Key

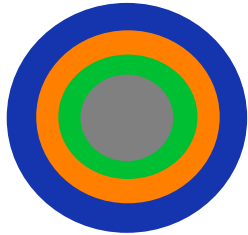
Gut, cavity

Mesoderm

Endoderm

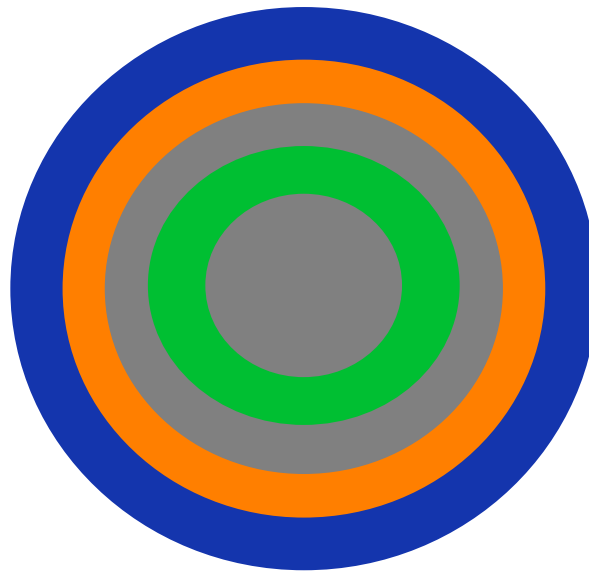
Ectoderm

# Acelomates- animals with no body cavity

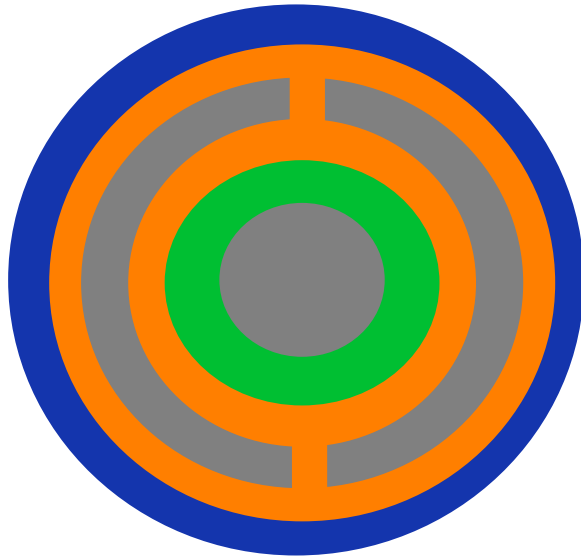


The space between the gut and the wall is completely filled with tissue.

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



Coelomates- a body cavity located entirely within the mesoderm.



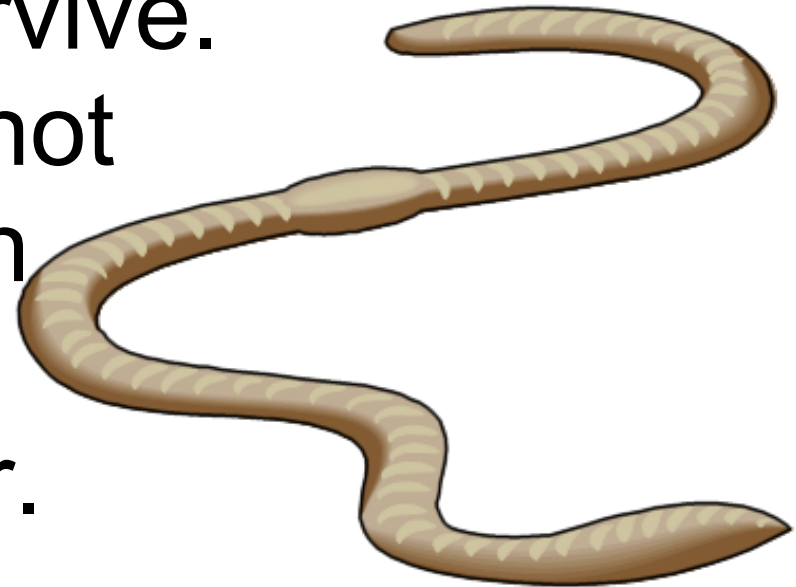
The gut and other organs are suspended in the coelom.

Advanced organism show  
segmentation.

Where is the segmentation in humans?

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

How?





| Phylum | Evolutionary Milestone |
|--------|------------------------|
|--------|------------------------|

|          |  |
|----------|--|
| Chordata |  |
|----------|--|

|               |  |
|---------------|--|
| Echinodermata |  |
|---------------|--|

|            |  |
|------------|--|
| Arthropoda |  |
|------------|--|

|          |  |
|----------|--|
| Annelida |  |
|----------|--|

|          |  |
|----------|--|
| Mollusca |  |
|----------|--|

|          |  |
|----------|--|
| Nematoda |  |
|----------|--|

|                 |  |
|-----------------|--|
| Platyhelminthes |  |
|-----------------|--|

|          |  |
|----------|--|
| Cnidaria |  |
|----------|--|

|          |  |
|----------|--|
| Porifera |  |
|----------|--|

|                    |              |
|--------------------|--------------|
| Jointed Appendages | Segmentation |
|--------------------|--------------|

|              |                    |
|--------------|--------------------|
| Pseudocoelom | Bilateral Symmetry |
|--------------|--------------------|

|        |         |                  |
|--------|---------|------------------|
| Coelom | Tissues | Multicellularity |
|--------|---------|------------------|

|               |          |
|---------------|----------|
| Deuterostomes | Notocord |
|---------------|----------|