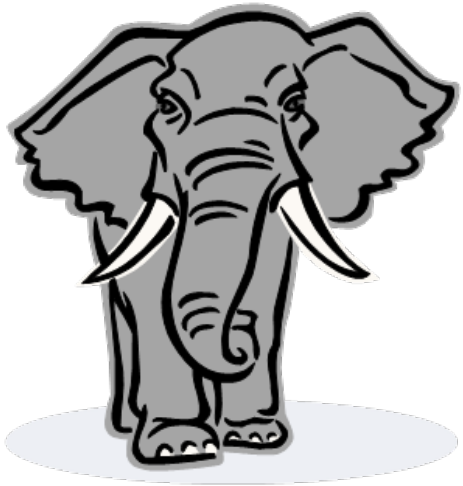
Compare and Contrast

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

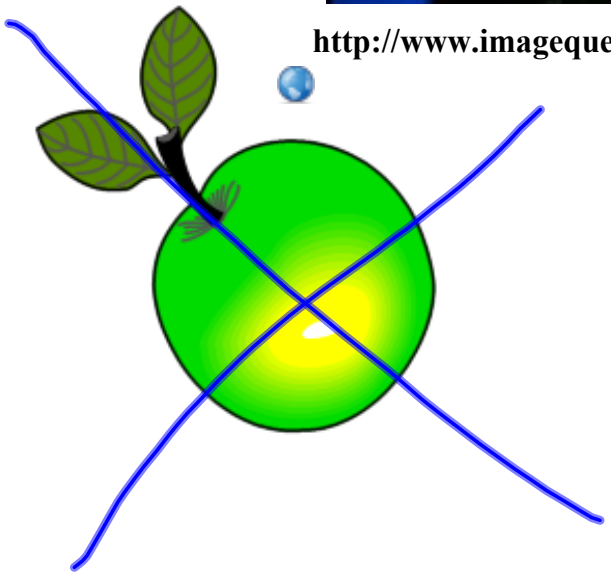


When Linnaeus classified animals in the 1700's, he counted 4,236. There are now over a million.

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

Heterotrophic-they cannot make their own food

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

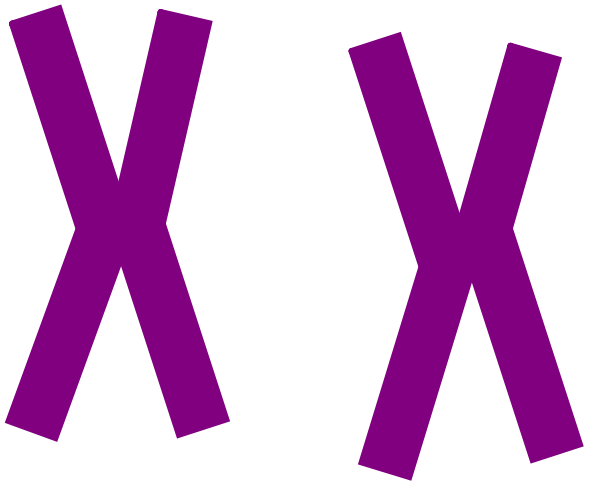


Mobility -They can perform rapid, complex movements .Some can walk, swim, crawl , run, and fly.

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/

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



Sexual Reproduction- almost all animals reproduce sexually

Absence of cell wall- of the multicellular organisms only animals lack a cell wall

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

Heterotrophic

Mobility

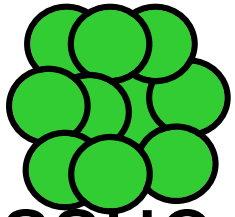
Multicellular

Diploidy

Lacking Cell Walls

Sexual Reproduction

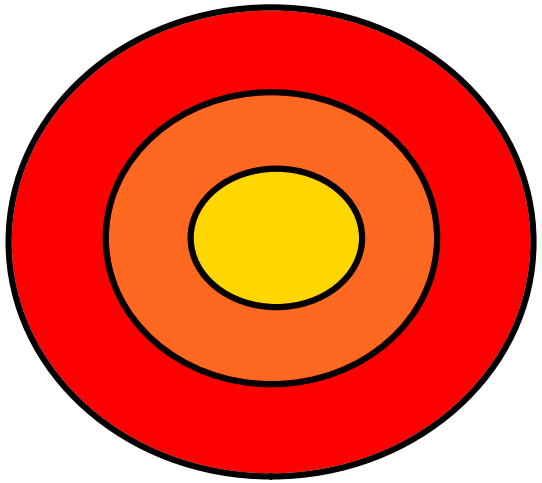
Blastula-hollow ball of cells



Ectoderm-outer layer of tissue

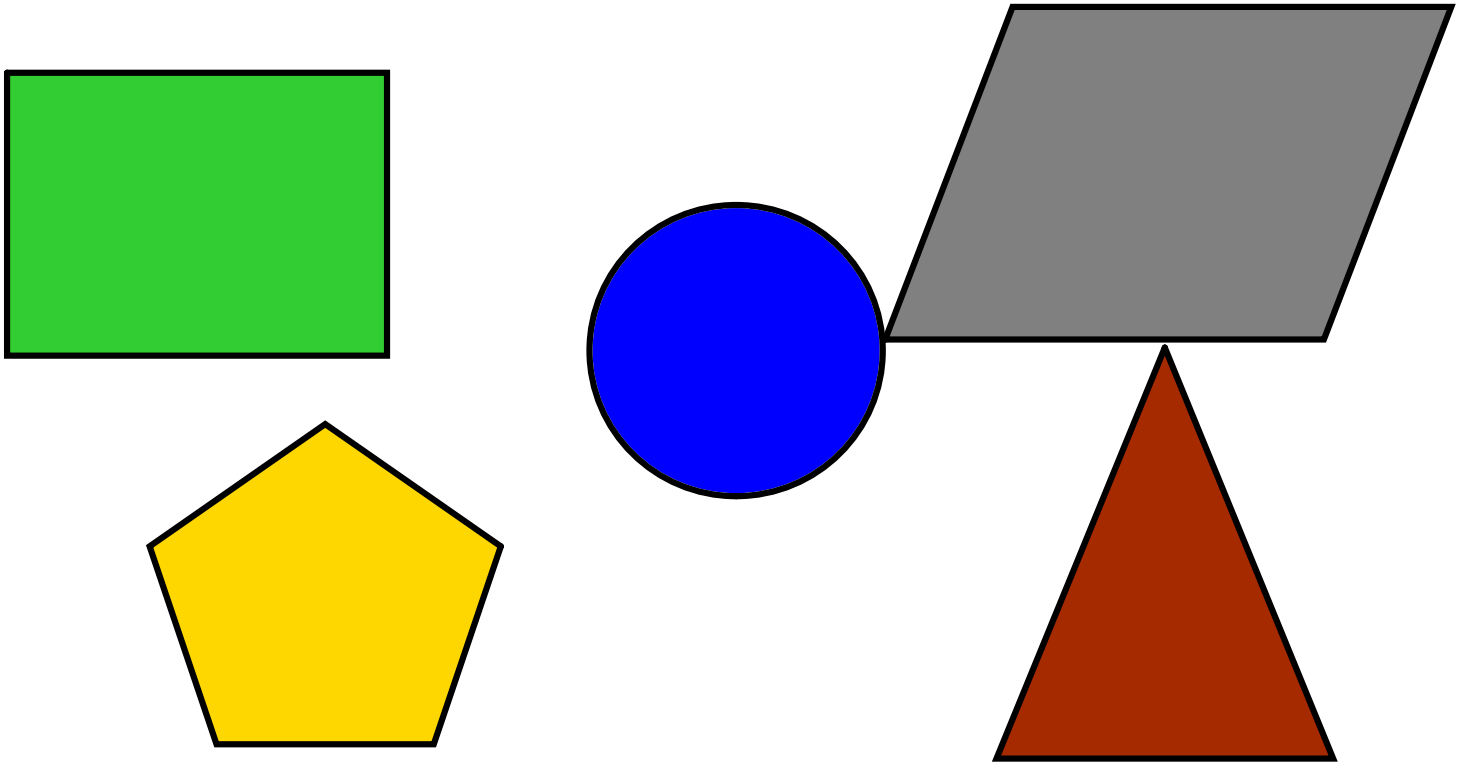
Mesoderm-middle layer of tissue

Endoderm-inner layer of tissue

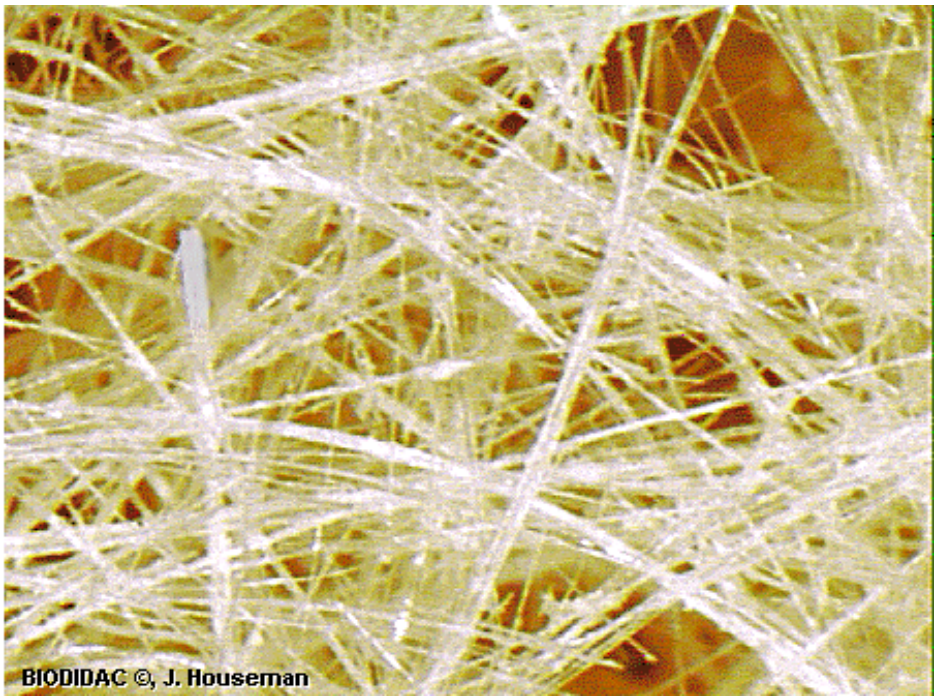


Ecto	Meso	Endo
Skin	Muscles	Glands
Eyes	Veins	Stomach
Nervous System	Skeleton	Lungs

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

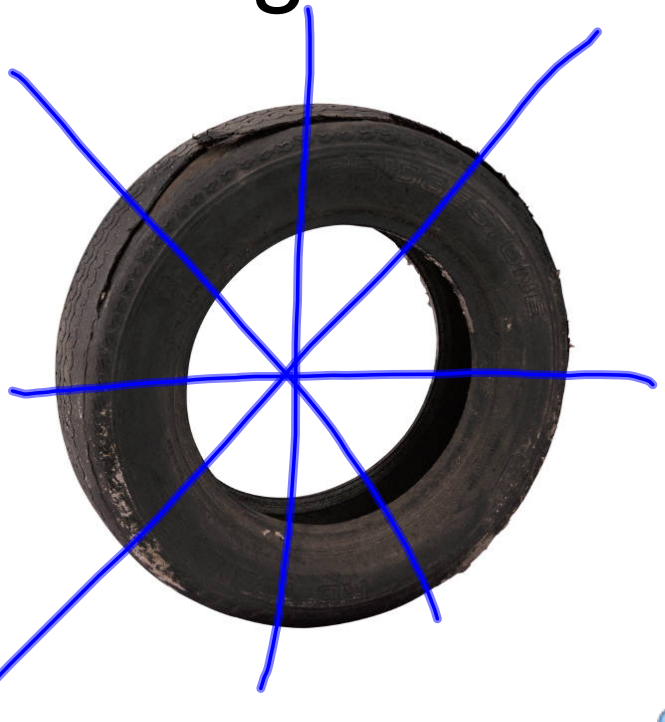


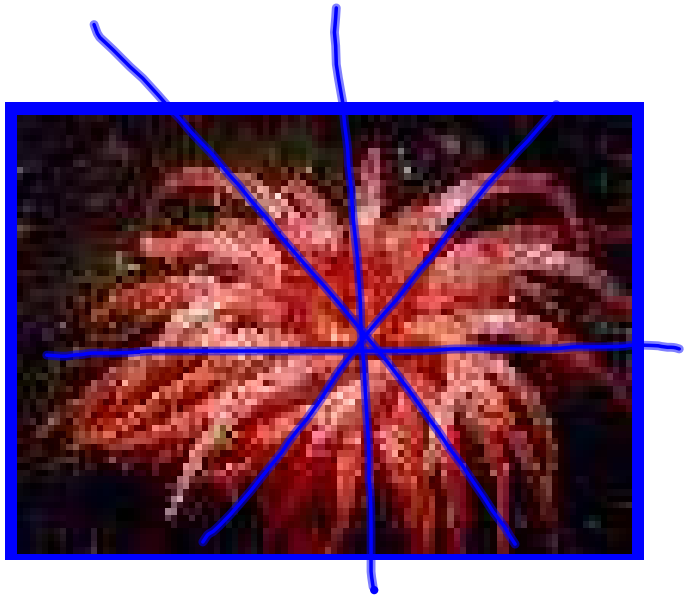
Asymmetrical- irregular in shape



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

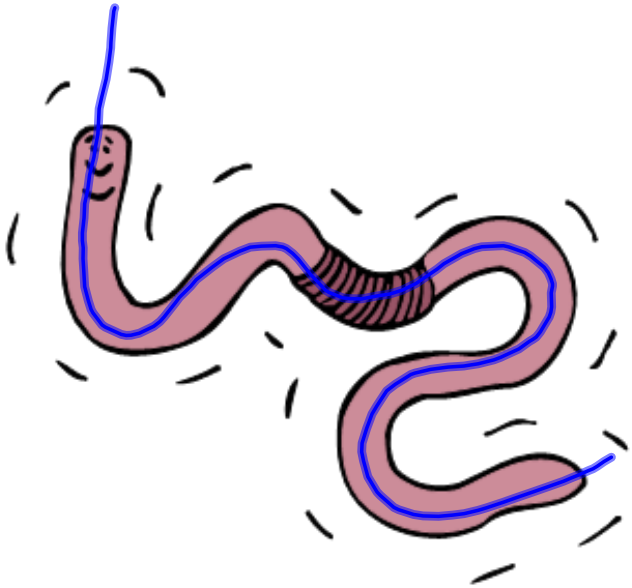
Radial symmetry- body parts all arranged around a central axis

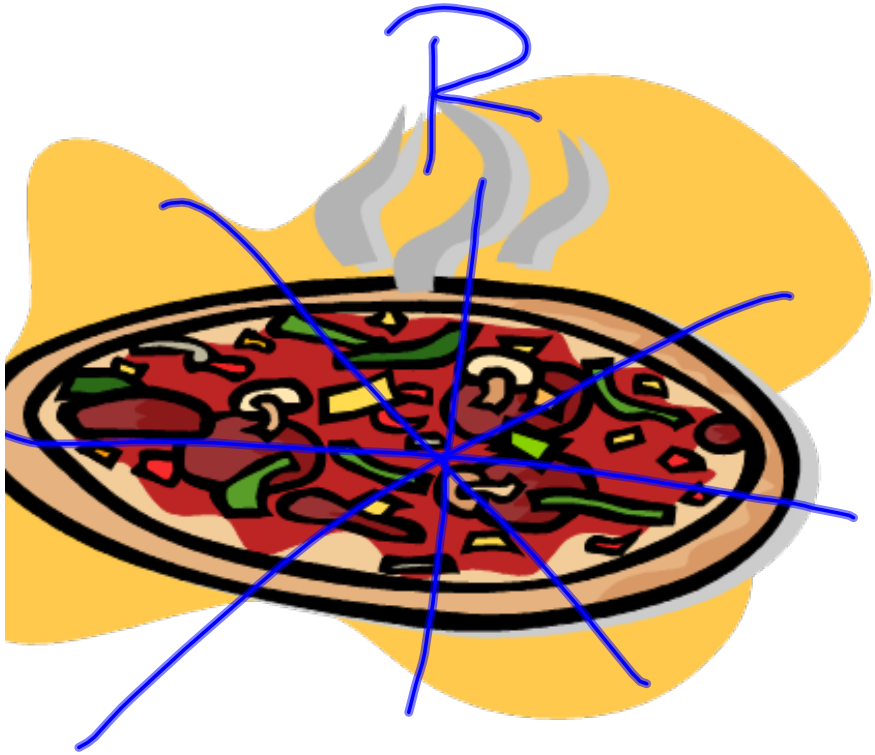


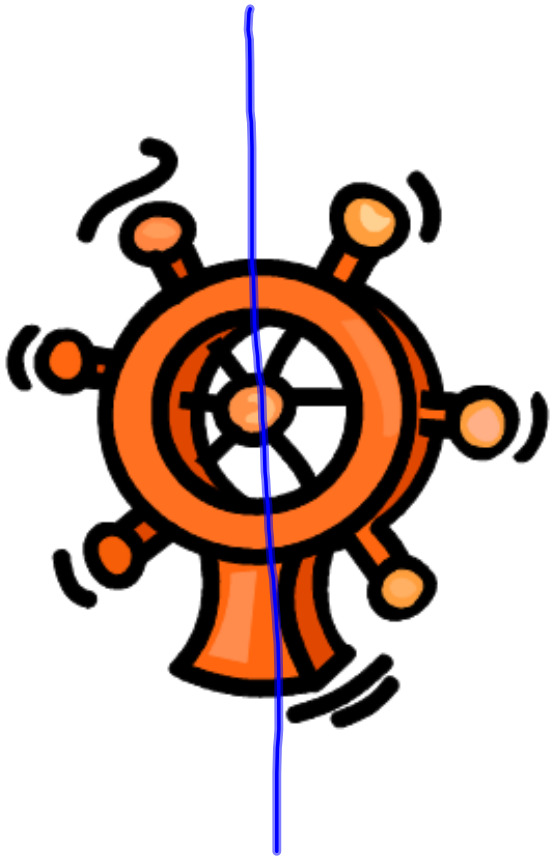


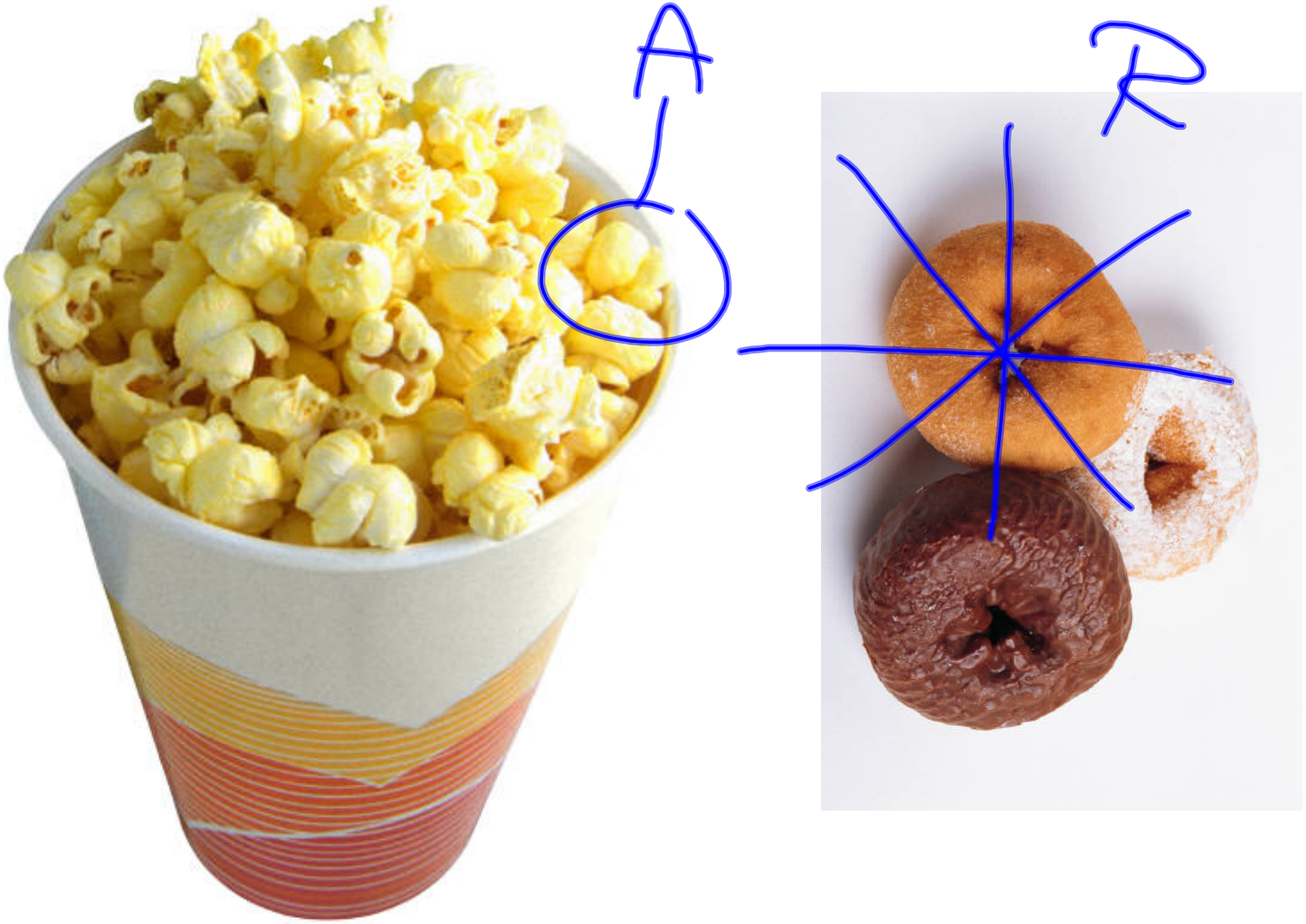
http://www.cyhaus.com/marine/anemone.htm

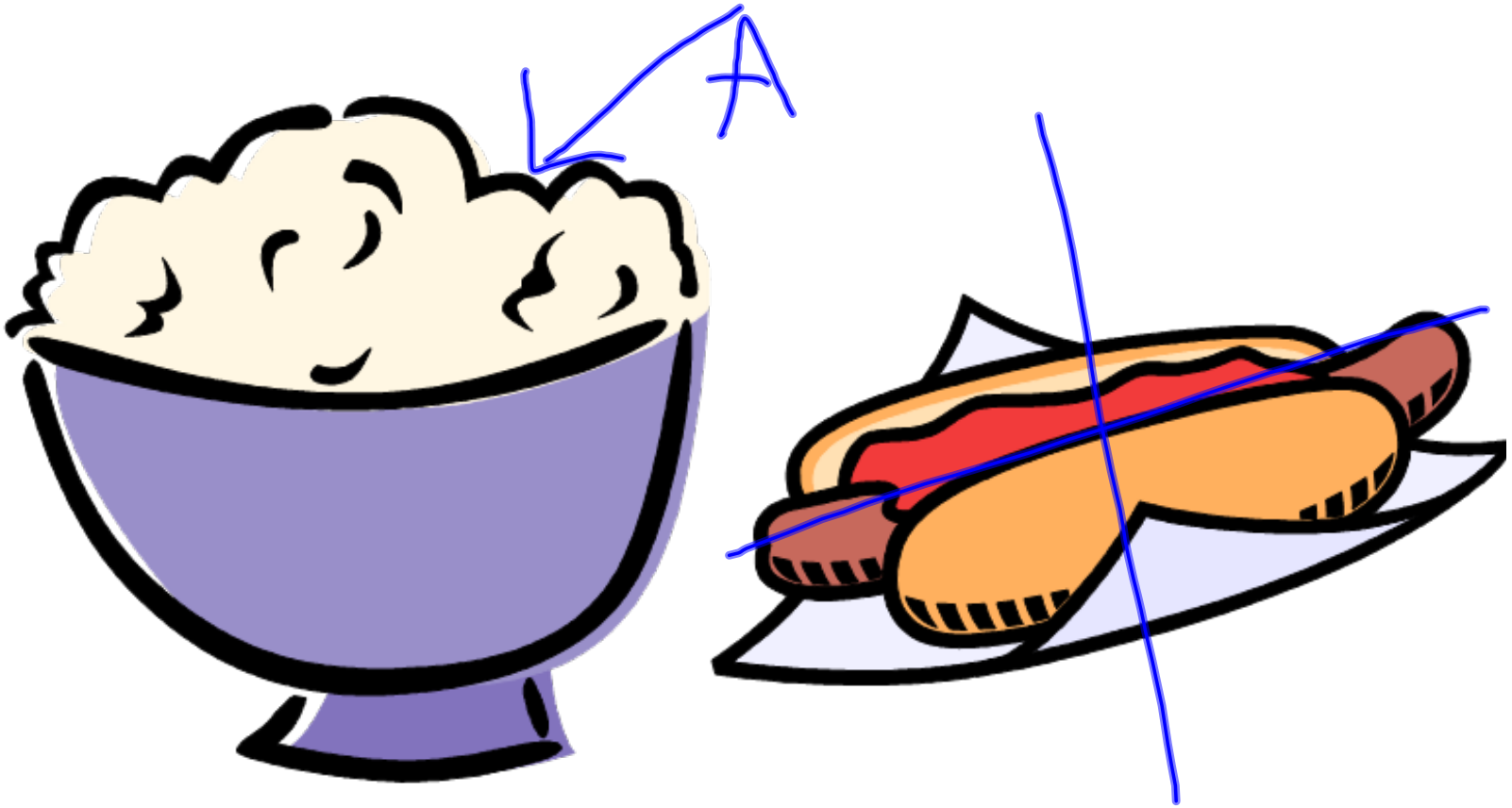
Bilateral Symmetry- distinct left and right halves

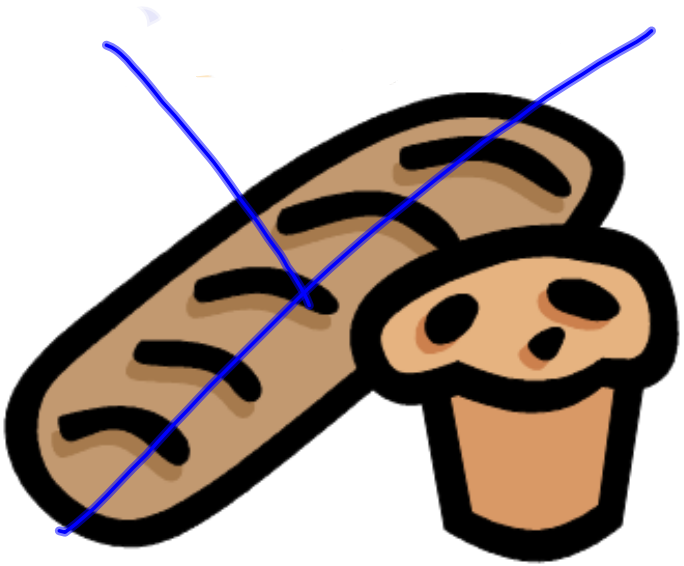








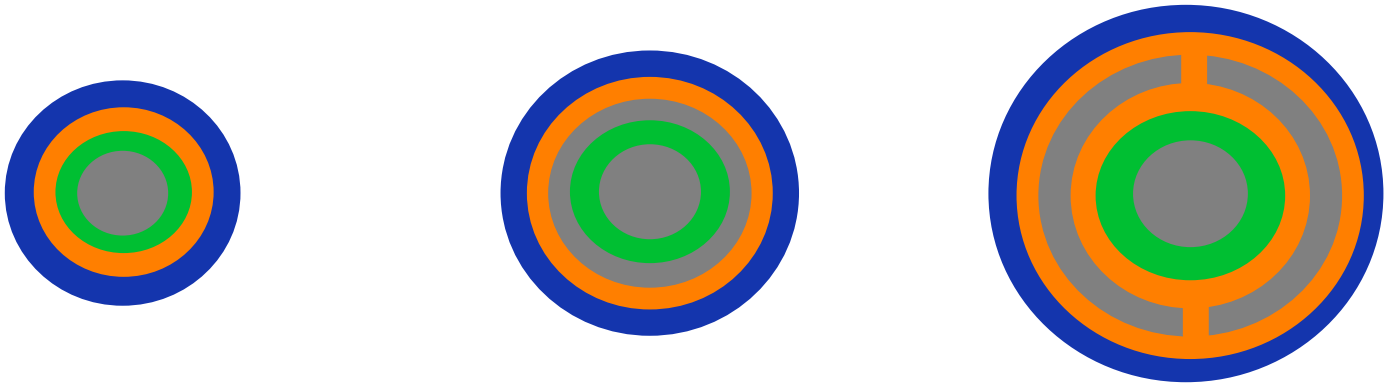




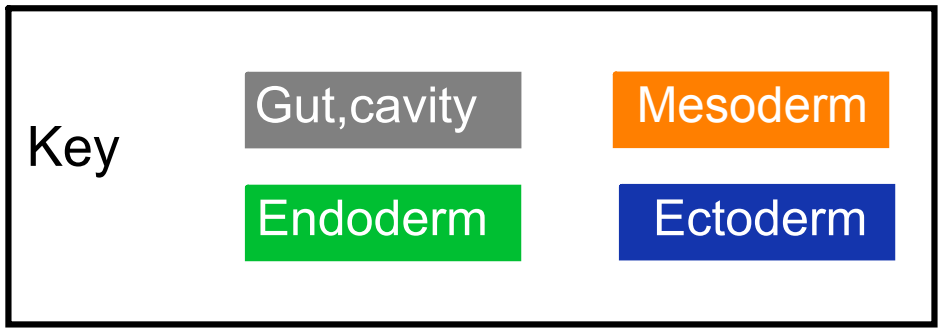
A

Bilaterally symmertrical animals have one of three basic body plans.

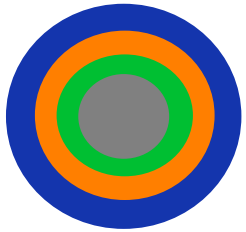
Body Cavity Types



Acelomates Pseudocoelomates Coelomates

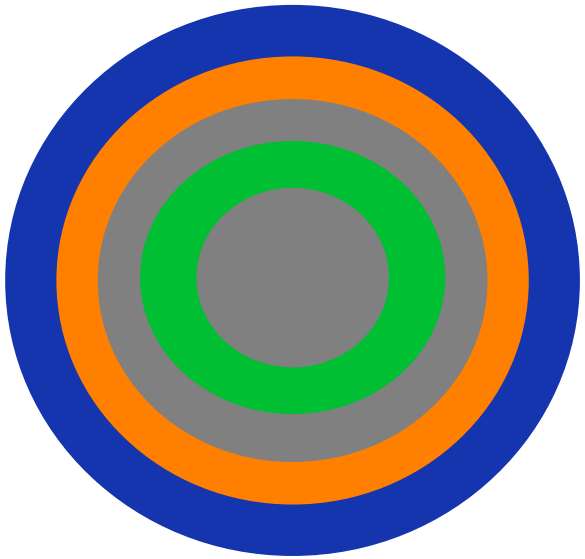


Acelomates- animals with no body cavity

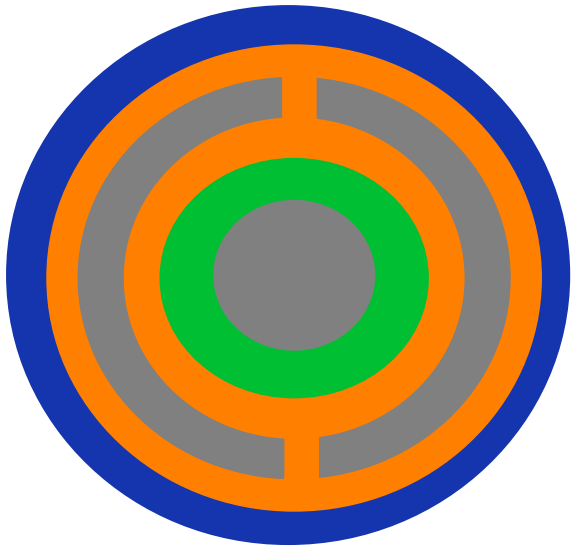


The space between the gut and the wall is completely filled with tissue.

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



Coelomates- a body cavity located entirely within the mesoderm.



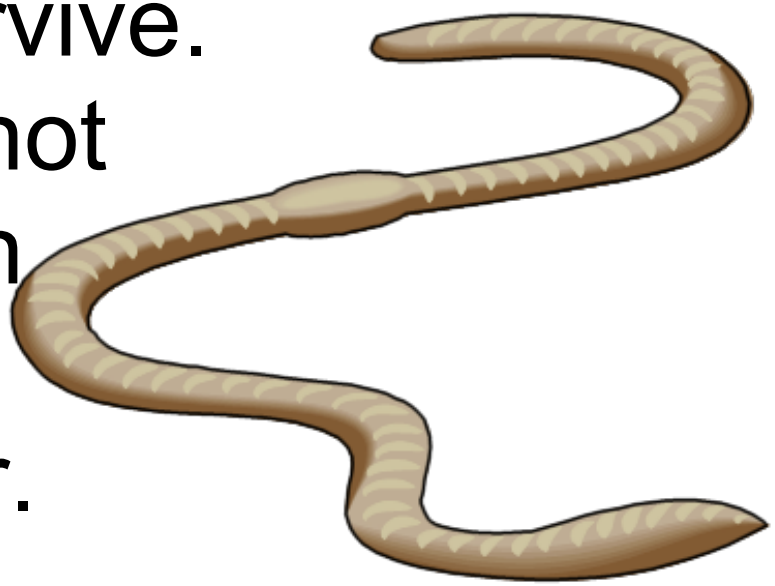
The gut and other organs are suspended in the coelom.

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