

There are six important function to tissues and organs:

digestion

respiration

circulation

conduction of nerve impulses

support

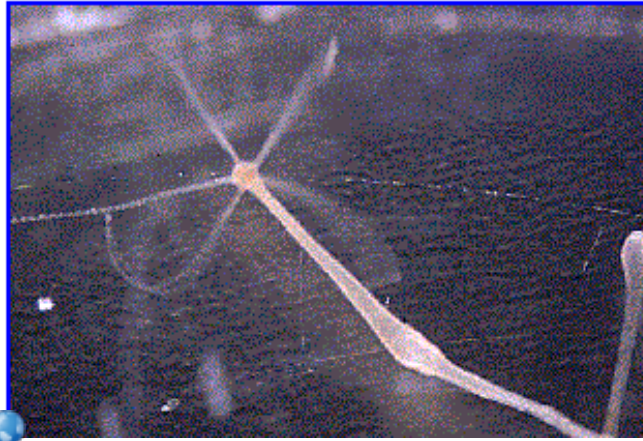
excretion

Digestion

Single cell organisms digest their food
inside their cells.

Other animals use digestive enzymes
outside of their cells.

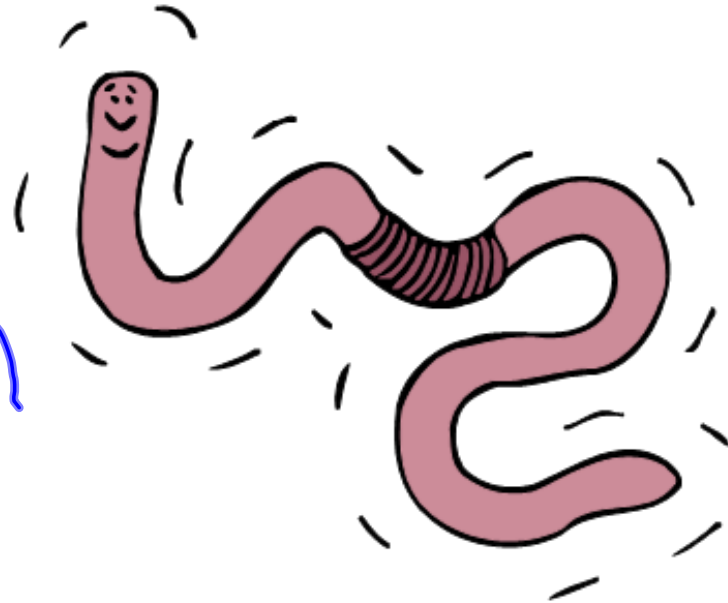
Gastrovascular cavity-
a digestive cavity with one opening.



<http://www.ucmp.berkeley.edu/cnidaria/hydrozoa.html>

Other animals have a digestive tract with 2 openings (mouth and anus)

This system allows for Specialization



Respiration

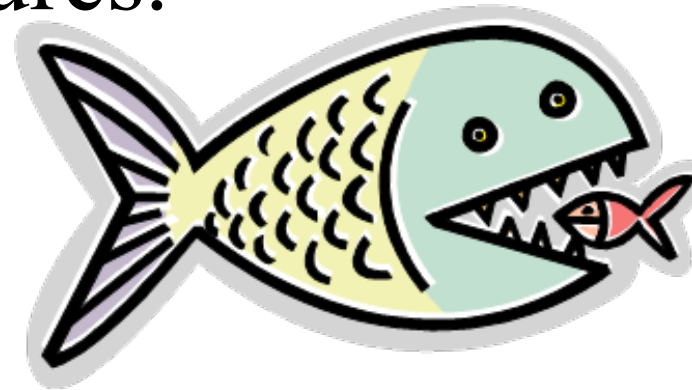
Respiration is the uptake of oxygen and the release of carbon dioxide

It can only take place across a moist surface.

Simple animals use diffusion

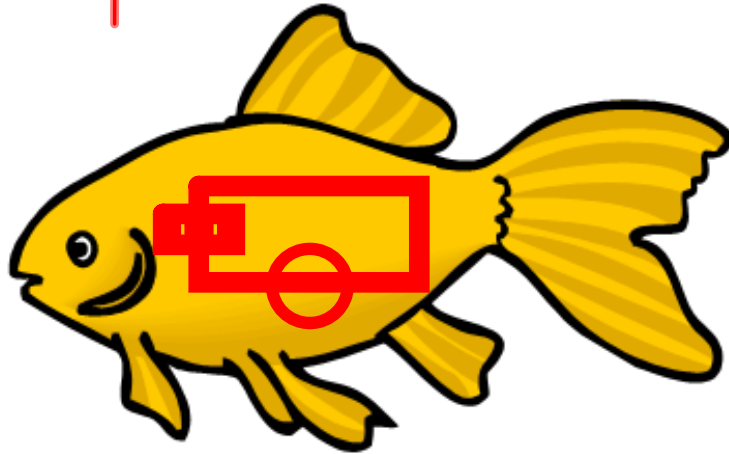


Complex animals have specific respiratory structures.



Circulation

Open circulatory system

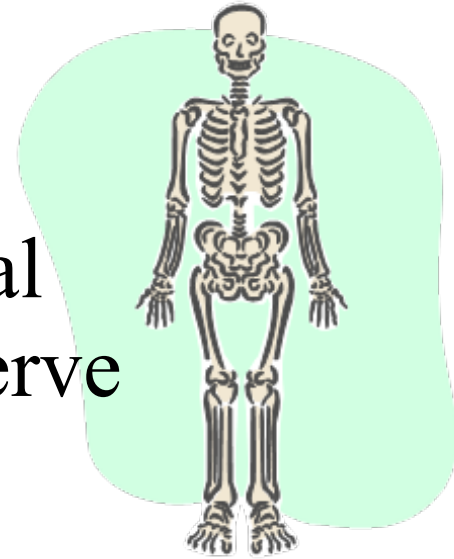


Closed circulatory system



Conduction of nerve impulses

Members of all the major animal phyla except Sponges have nerve cells.



Nerve net- all cells are similar and connected together



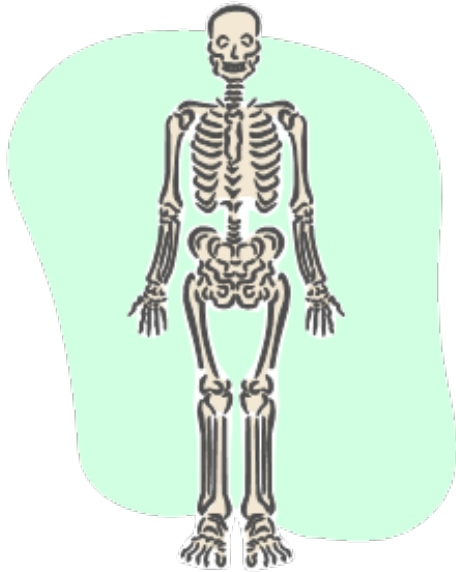
(front)
Cephalization- anterior concentration of sensory structures and nerves

Support

Hydrostatic skeleton- water that is contained under pressure in a closed cavity. jellyfish

Exoskeleton-a rigid external skeleton
ant, clam, lobster

Endoskeleton- hard material within the animal human



Excretion
Removal of
wastes produced
by cellular
metabolism