Fish Physiology Notes

Anatomy and Physiology

* Physiology:



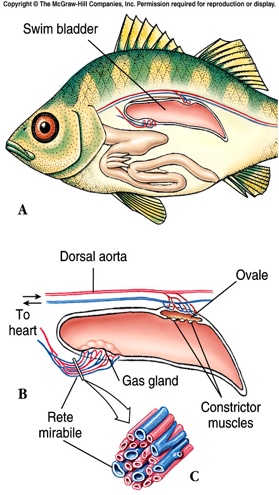
Circulatory System

* Deoxygenated blood enters 1st chamber of heart from body (atrium)
* 2nd chamber pumps this blood into gills (ventricle)
* Gas exchange takes place in gills
* Oxygenated blood carried to rest of body

Respiration

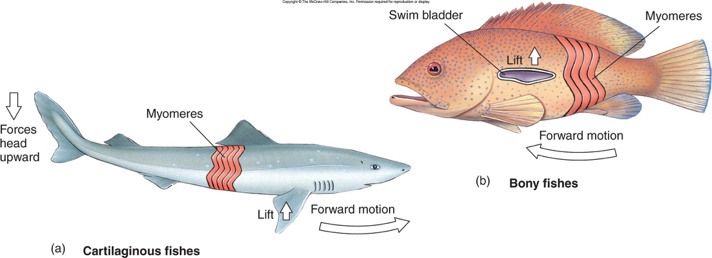
* How do fish keep their gills irrigated?
* What is counter-current diffusion?

Neutral Buoyancy:

* How do sharks keep from sinking?
* What is a swim bladder, and which class of fish is it found in?

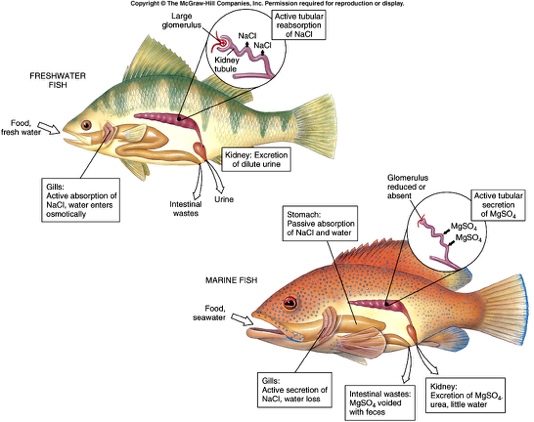
Teleosts vs. Chondrichthians

* Teleosts:
* Chondrichthians:



Osmotic Regulation

Marine bony fishes are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* 
* unneeded salt is secreted \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

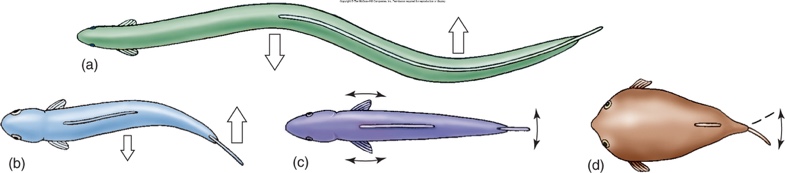
Reproduction

* Most sexually reproduce and have separate sexes
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_-eggs develop outside the female.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_- eggs are fertilized internally and hatch and develop inside the mother. Don’t receive nutrients from her body.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_-Most fish externally fertilize eggs in a large group. No parental care.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_- a few species care for eggs and/or larvae by protecting them in their mouths.

Life Cycle of Fishes



Movement

* Locomotion
  + 
  + myomeres:

Schooling and Shoaling

* Shoal:
* School:
  + How is a school’s behavior controlled?