

② Fish

What You'll Learn:

- List the characteristics of the three classes of fish
- Explain how fish obtain food and O and reproduce.
- Describe the importance and origin of fish.

Fish Characteristics

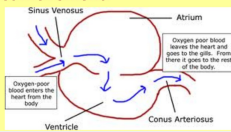
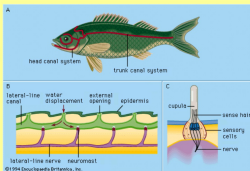
*Ectotherms, streamlined shape, muscular tail, and fins.



Body Systems

*Lateral line system is a shallow canal that extends the length of the body and is filled with sensory organs.

*It enables fish to sense the environment and detect movement.



*Two chambered heart in which O rich blood mixes with CO2 rich blood.

Gas Exchange

*Gills exchange O and CO2.



Feeding Adaptations

*Mouths are adapted to the food they eat.



Reproduction

*All reproduce sexually

*It is controlled by sex hormones.

*3 factors determine hormone production:

1. Temperature
2. Length of Day
3. Availability of Food

External fertilization (spawning) female releases eggs into the water and male releases sperm into the water.



*Internal fertilization female receives sperm from the male.

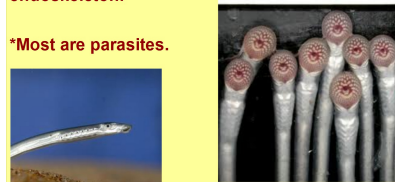


Three Classes of Fish

1. Jawless Fish

*round toothed mouths, long tubelike bodies, covered with scaleless slimy skin, and a cartilaginous endoskeleton.

*Most are parasites.



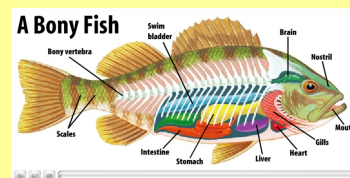
2. Cartilaginous Fish

*Endoskeleton made of cartilage with well developed jaw and teeth, and covered with rough tiny scales.



3. Bony Fish

*Endoskeleton made of bone.



Swim Bladder

*Swim bladder inflates the fish rises.

*Swim bladder deflates the fish sinks

*It helps fish conserve energy by allowing them to "float" in the water column.

Lobe-Finned Fish

*Fleshy lobelike fins.

*Early ancestors of first land vertebrates (amphibians)



Lungfish

*Lung and gills. It uses it's lung when there isn't enough O in the water.



Importance of Fish

*Control insects, control plant growth, and economically.

