Biology 0871 **Phylums Platyhelminthes and Phylum Nematoda**

**Flatworms** (**Phylum Platyhelminthes)**

-**bilateral symmetry,** **cephalizationn**, rely on diffusion for some essential body functions such as respiration, excretion and circulation; flatworms are **acoelmates** – meaning they do not have a central cavity derived from mesoderm.

-**free living flatworms** have organ systems for digestion excretion, response and reproduction. **Parasitic flatworms** are simpler in structure that their free living relatives, b/c a parasitic flatworm can rely on its host to carry out important functions.

-Unlike sponges and cnidarians, free living **flatworms search for food**.

-Flatworms are invertebrates with **long, flattened bodies and bi- lateral symmetry**. Their soft bodies have **three layers of tissue organized into organs and organ systems**.

-Planarians are free- living flatworms that have a **digestive system with one opening**. They don’t depend on one particular organism for food or a place to live. However, most **flatworms are parasites that live in or on their hosts**. A parasite depends on its host for food and shelter.

One type of parasitic flatworm is the tapeworm. To survive, it lives in the **intestines of its host**, including human hosts. The tapeworm **lacks a digestive system** so it **absorbs nutrients from digested material** in the host’s intestine. You can see the hooks and suckers on a tapeworm’s head that attach it to the host’s intestine

A tapeworm grows by adding sections directly behind its head. **Each body** **segment has both male and female reproductive organs**. The eggs and sperm are released into the segment. After it is filled with fertilized eggs, the segment breaks off.

**DRAW BELOW THE BASIC STRUCTURES OF FREE LIVING FLATWORM AND A PARASITIC FLATWORM**

**Roundworms (Phylum Nematoda)**

 -slender unsegmented worms with tapering ends; most are **free living**, inhabiting soil, salt flats, aquatic sediments, and water; some are **parasitic**  living inside the hosts that include plants and animals.

-like flatworms, roundworms develop from three germ layers. However, roundworms have a body cavity btw the endoderm and the mesoderm tissues. The cavity is called a **pseudocoelom** b/c the cavity is only partially derived from mesoderm. Unlike flat worms, round worms have a **digestive tract** with two openings – a **mouth** and an **anus** – food moves in one direction – any food that can’t be digested leaves through the anus.

Digestion is roundworms is different than digestion in flatworms. Explain.

**DRAW OUT THE ROUNDWORM ON PG 689 FIGURE 27-7**

**Roundworms and Human Disease**  p 690-692 Take notes on each worm.

1. Trichinosis – Causing Worms
2. Filarial Worms

1. Ascarid Worms
2. Hook Worms

**MAKE YOUR OWN ROUNDWORM CHART**