

## Flatworms and Roundworms

What you'll learn:

- List the characteristics of flatworms and round worms.
- Distinguish between free living and parasitic organisms.
- Identify disease causing flatworms and roundworms.

### Common Characteristics

Worms are invertebrates with soft bodies that have bilateral symmetry.

They have three layers of tissue that are organized into organs and organs systems.



## Flatworms

Flatworms have a flattened body.

Most are parasites (live in/on another organism), while some are free-living.

Free Living Organisms don't depend on another organism for food or shelter.

### Planarians

Planarians are free living flatworms with a triangle shaped head, two eye spots, one body opening, and a muscular tube to connect the mouth to the digestive tract.

Most live under rocks, on plant material, or freshwater.

Cilia move the worm along a slimy trail.



Planarians reproduce sexually and asexually.

## Flukes

All flukes are parasites and have complex life cycles.

Most reproduce sexually.

Many flukes carry diseases. Schistosomiasis is the most wide spread. It is a blood disease that kills 1 million people a year.



## Tapeworms

Tapeworm is a parasite that lives on the intestines of a host.

Tapeworms do not have a mouth. They absorb food that is digested by the host.

They grow by producing segments behind the head. Each segment contains sperm and eggs.

Fertilized eggs are passed from the host where they are eaten by another animal and hatch.

### Origin of Flatworms

They are believed to be the first animal with bilateral symmetry, senses and nerves in the head region, and a third tissue layer that develops into organs and systems.



## Roundworms

\*Roundworms (nematodes) are the most abundant worm and they live in a variety of environments.

\*They have two body openings a mouth and anus.

Anus is an opening at the end of the digestive tract through which waste leaves the body.

\*Most reproduce sexually and are free living.



### Origin of Roundworms

It is unclear how roundworms evolved, but they appear early in animal evolution.

### Importance of Roundworms

Roundworms are essential to healthy soil. They breakdown organic material and cycle nutrients.

Some roundworms kill pests.