

# ANIMAL KINGDOM

## PHYLUM PORIFERA (sponges)

These are a thick sack of cells that form pores, chambers, or canals. They live in water and attach themselves to one place where they stay.



Filter feeders

Asymmetry

sessile

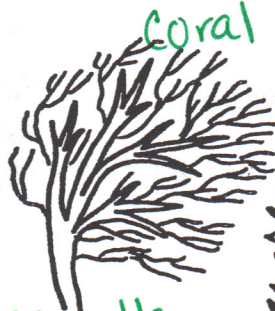
## Cnidarians PHYLUM COELENTERATA (coelenterates)

These have a central cavity with a mouth. Most have tentacles. They live in water. Some are attached to one spot. = sessile

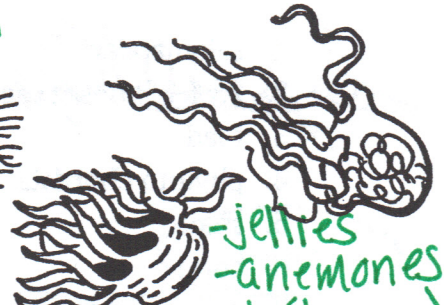
- Radial symmetry

- stinging cells

- nerve net (tissue)



coral



- jellies  
- anemones



tape worm

- Most are parasites

- Some are scavengers

## PHYLUM PLATYHELMINTHES (flatworms)

These are flat-bodied worms that live as parasites or move freely in water.

- bilateral symmetry

- simple brains

## PHYLUM NEMATODA (roundworms)

These are round-bodied worms that live as parasites or move freely in water or on land.

- usually very tiny  
- some are parasites

- one-way digestive system

- Radial symmetry



earthworm



leeches

## PHYLUM ANNELIDA (segmented worms)

These worms have bodies that are divided into segments. All the segments have bristles. They live on land or in water. They are not parasitic.



- closed circulatory system

## PHYLUM MOLLUSCA (mollusks)

Mollusks have soft bodies with hard or shell coverings. They live on land or in water. Many of them have a thick, muscular foot for movement. Some live attached to surfaces such as rocks.

3 groups: bivalves  
2 shells



- gastropod  
"stomach foot"  
snail & slug



"cephalopod"  
"head foot"  
- octopus  
- squid



- some sessile

- bilateral symmetry

largest phylum  
- 95% of animals

## PHYLUM ARTHROPODA (arthropods)

"Jointed Foot"  
bilateral

Arthropods have bodies divided into segments. Their legs are jointed, and they have hard exoskeletons made of chitin. The exoskeletons are hinged to allow movement. Arthropods shed their exoskeletons from time to time in order to grow. They live on land or in water.

Groups - Crustaceans (shrimp/lobster)

- Arachnids (spider/tick)



- Myriapod (centipede/millipede)

- Insect (beetle/ant)

## PHYLUM ECHINODERMATA (echinoderms)

"spiny skin"

Echinoderms are animals with radial symmetry. They have a tough, outer covering that is covered with spines. All echinoderms live in salt water and have a water vascular system for movement. They also have structures called tube feet which attach to objects for movement.

Very advanced system



Sea cucumber

key-hole urchin



sea star



sea urchin

## PHYLUM CHORDATA (chordates) most complex

Chordates are distinguished by their internal skeletons made of bones or cartilage. They also have specialized body systems for digestion, circulation, and a central nervous system. Vertebrates may live on land or in water.

bilateral symmetry

