

Mollusca (Molluscs)

General :

- Foot - muscular (slug, snail, clam)
OR - Tentacles (squid, octopus)
- Mantle - tissue fold that covers body & internal organs
- Shell - Reduced to a cartilage pen / quill in squid, octopus & slug
- gills - 'real gills in water - living
- mantle cavity modified to act like a lung for those living on land; must be moist environment
- Visceral Mass - group of internal organs lumped together
- radula OR Beak - tongue like scraper on a (snail) to scrape algae from rocks (slug)
- squid or octopus ; for tearing apart prey

Classes :

- Chitons 

- Bivalvia / Bivalves - 2 shells (value)

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- clam, mussels, oysters
- Gastropoda - "stomach" foot
- snail, slug
- Cephalopoda - "head" foot
- octopus, squid

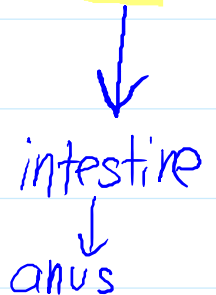
Digestion : mouth → esophagus → stomach & digestive gland

- gastropoda - feed on plant matter scraped by radula

- cephalopoda - capture food tentacles - carnivores hunters

- Bivalves - filter feeders

secrete enzymes



Respiration: gills - squid, clam - water circulates bringing in O₂

- snail & slug : mantle cavity modified into a lung
some have gills in cavity

Circulation:

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Bivalves & gastropods : (clams & snails) - * Open Circulation

- * blood flows out a "hole" in heart & bathes organs in body cavity's called sinuses
- blood drains back into heart through "hole"

(, see earthworm definition)

Cephalopods : Closed circulation (blood vessels)
squid have 3 hearts

Excretion: squid & snail - Kidneys - liquid metabolic wastes

Nervous: cephalopods - large brain ; can remember & learn

- well developed N.S - fast movement
- image forming eyes (hunters)
- Ink released when threatened

Bivalves - no eyes ; only simple ganglia/brain
- slow movement

Movement: Cephalopods ; fast & well co-ordinate by brain

- swimming
- foot divided into tentacles
- jet propulsion thru siphon

Bivalves : only 1 foot ; burrowing or digging
in sand ; slow

Reproduction : No Asexual

Sexual : dioecious - separate male & female

Cephalopods - internal fertilization

- eggs released in ocean;

Octopus : eggs attached to underwater cave

Bivalves - external fertilization

- eggs & sperm released into
water to meet up

- form "trochophore" larvae (Pg. 701)