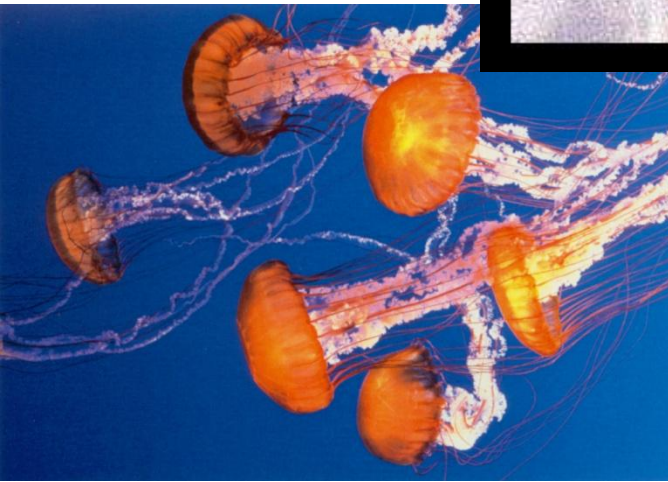
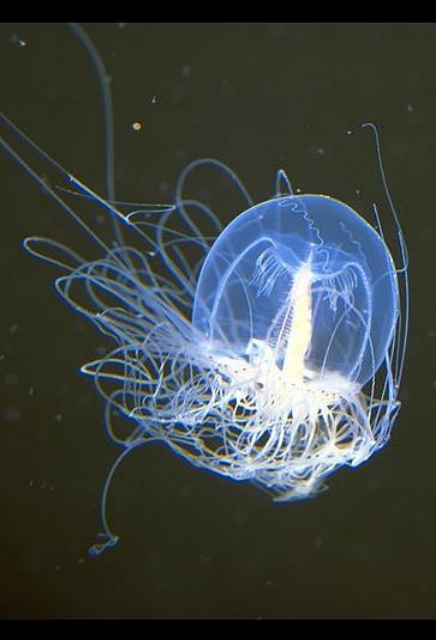


Phylum Cnidaria

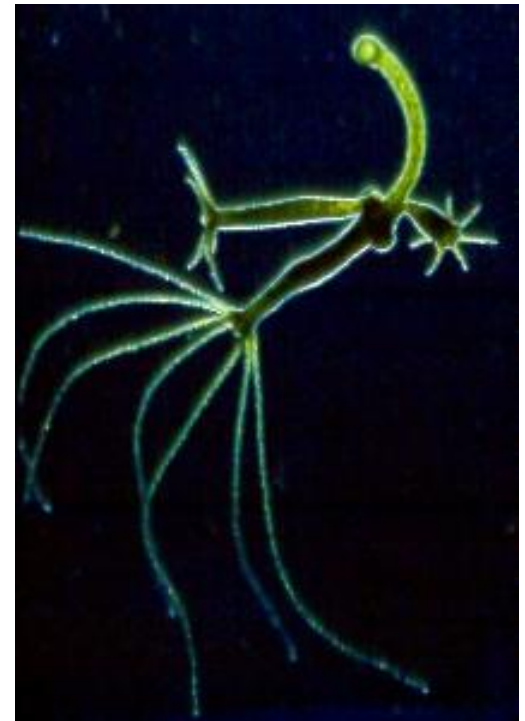
Sea jellies, Hydra, Coral colonies, sea anemones



Sea jellies



Hydra



Coral colonies



Brain coral



Sea anemones



Sea pens



Sea fans



Characteristics:

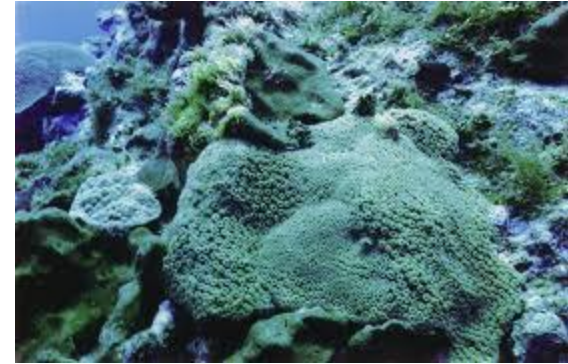
Body type: radial symmetry

Ecological roles:

- Food source
- Home / shelter
- Protect shorelines
- Anticancer chemicals

Body organization:

2 germ (tissue) layers:
endoderm & ectoderm
(mesoglea – jelly-like layer
between endo & ecto but not a
tissue layer)



Characteristics continued:

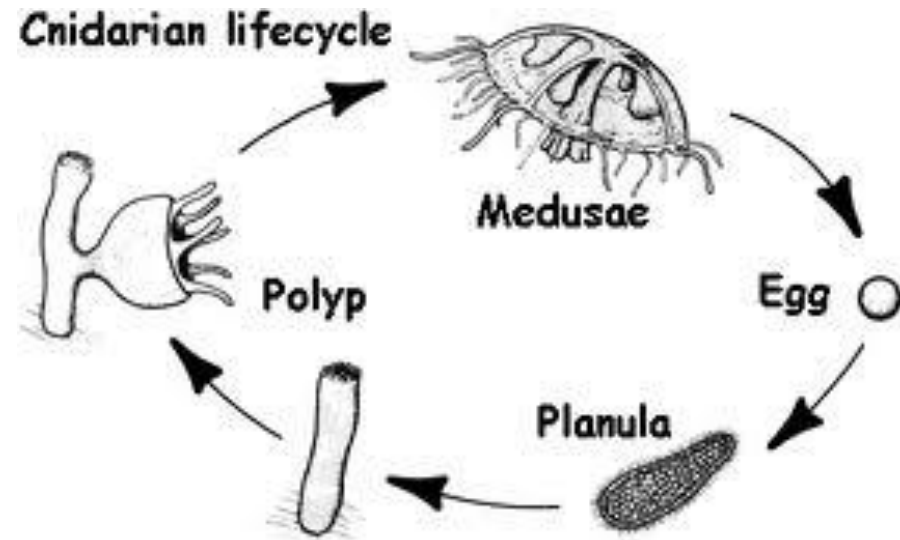
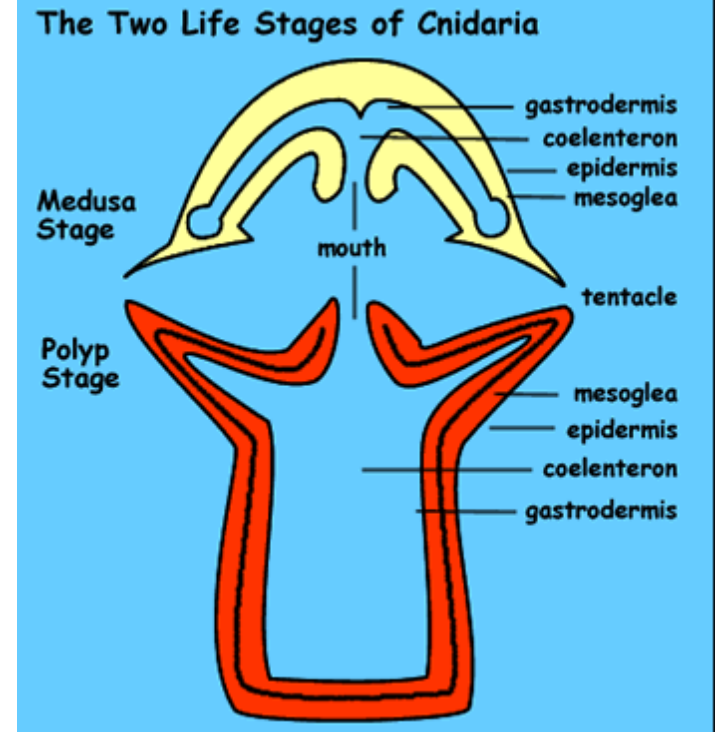
Body cavity: acoelom

Digestive system:

- Mouth
- gastrovascular cavity (**first**)
- nematocysts

Reproduction:

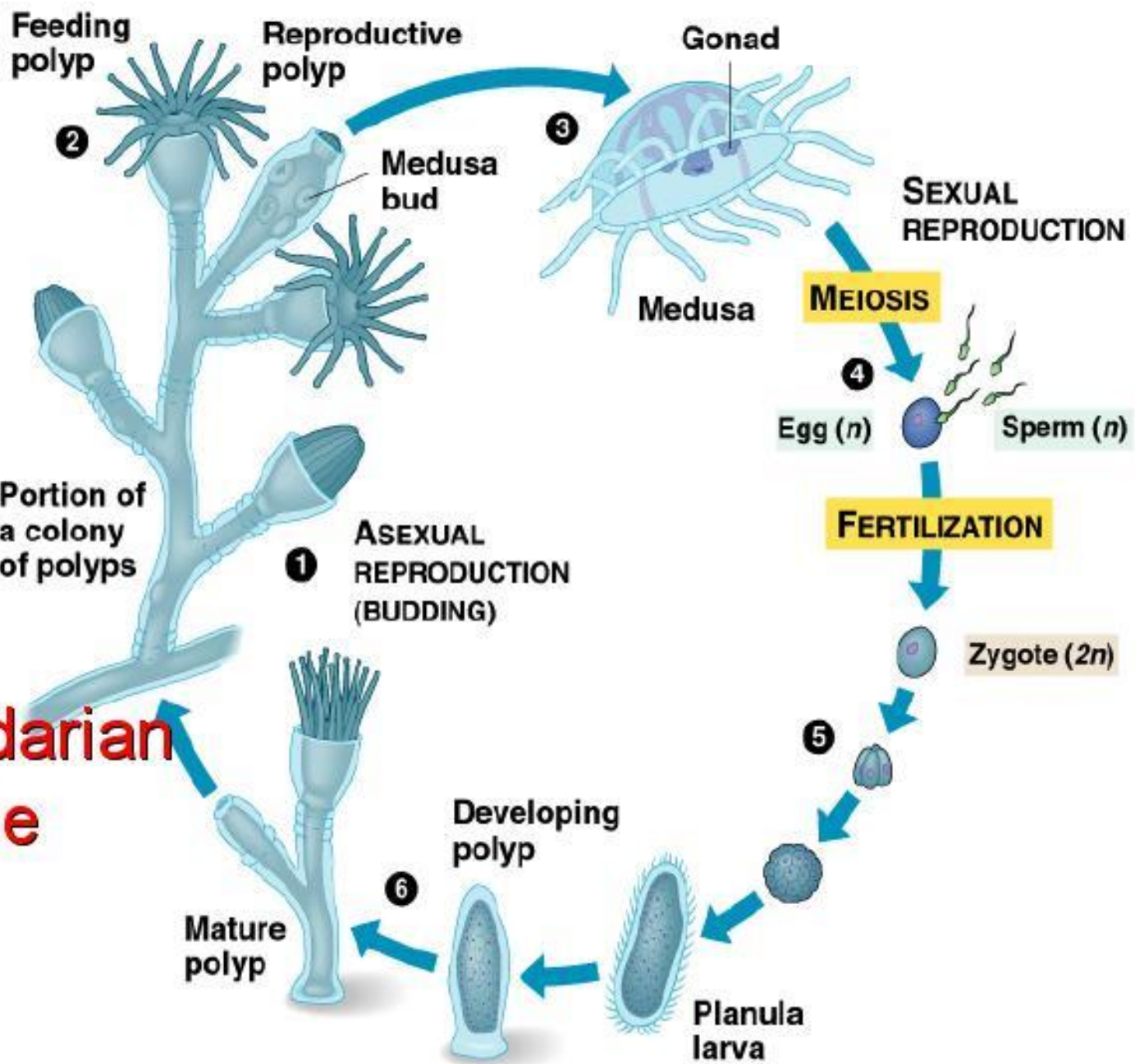
- Sexual: male & female medusa
 - Gametes fuse to form a **planula**
- Asexual: budding & regeneration

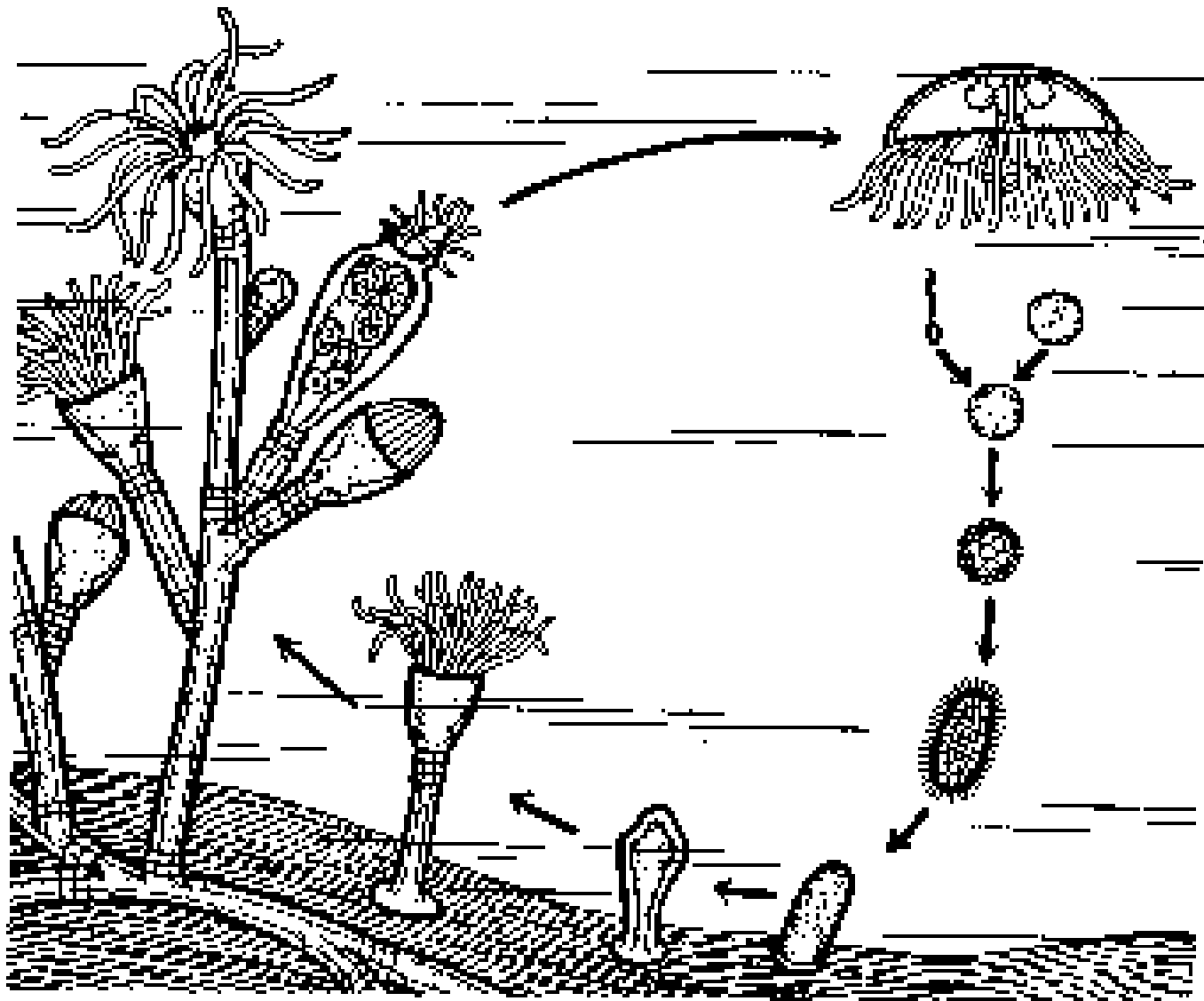




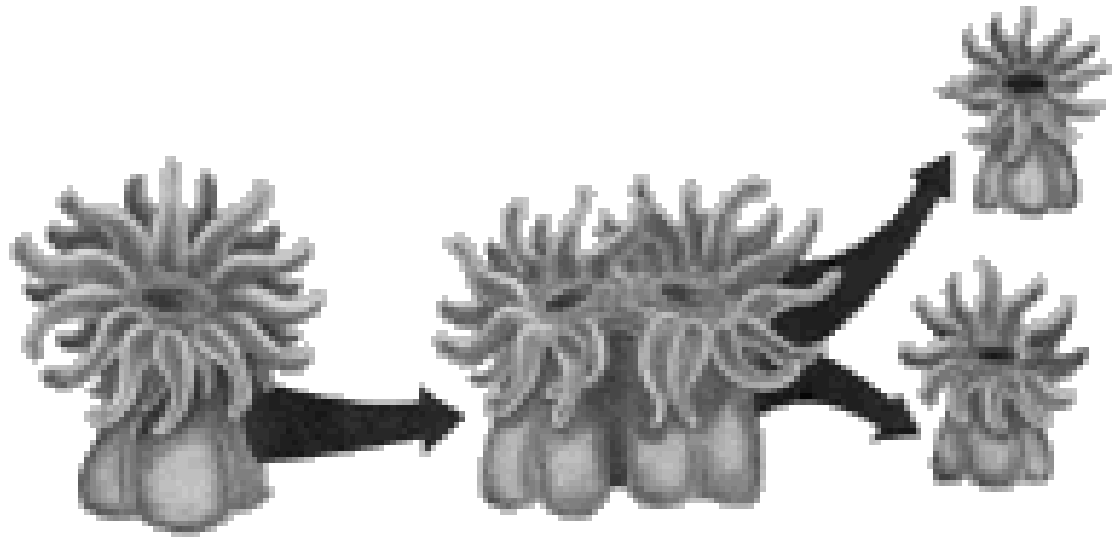
1 mm

The Cnidarian Life Cycle



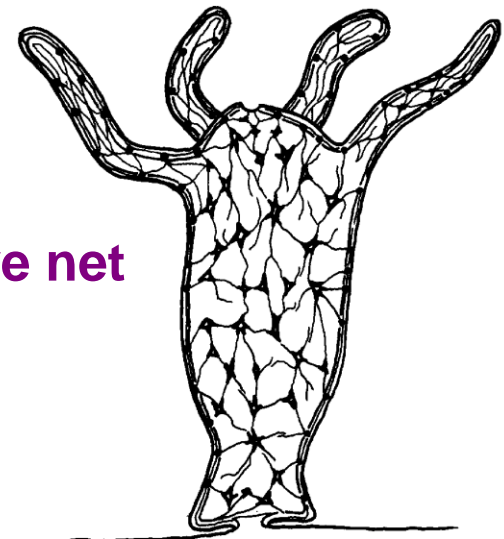


Asexual - Budding

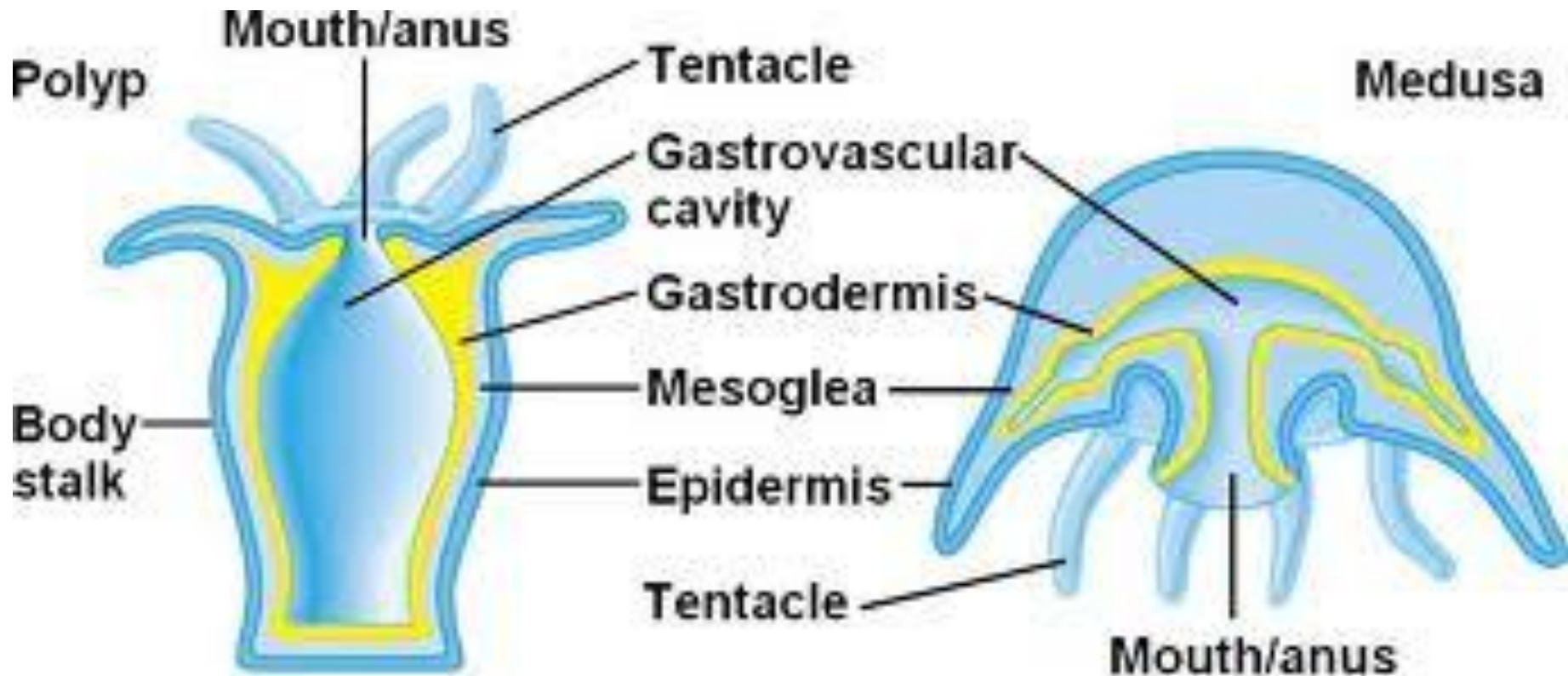


Characteristics continued:

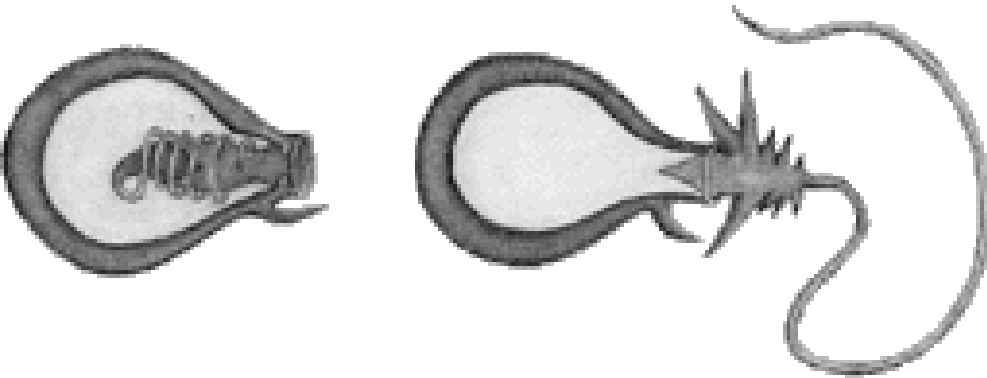
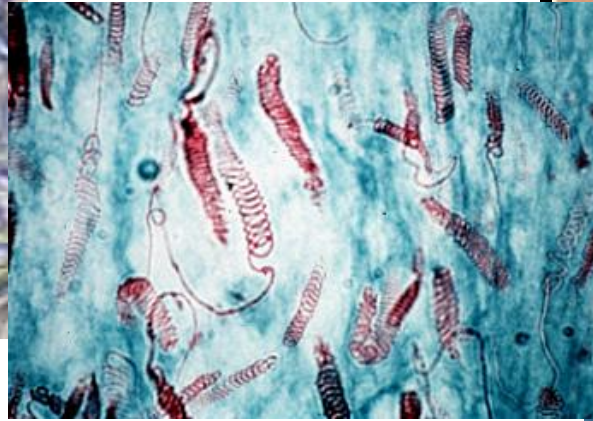
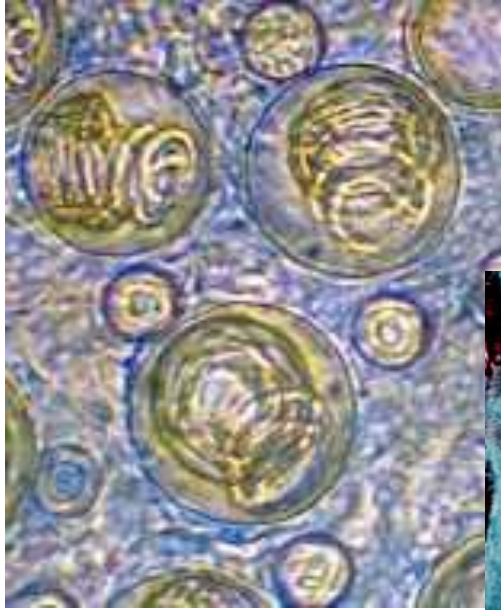
- Circulation: diffusion
- Nervous system:
 - Nerve net encircles body (**first**)—coordinates nerves & muscles
- Respiration: diffusion
- Excretion: mouth
- Habitat:
 - Aquatic – oceans & lakes

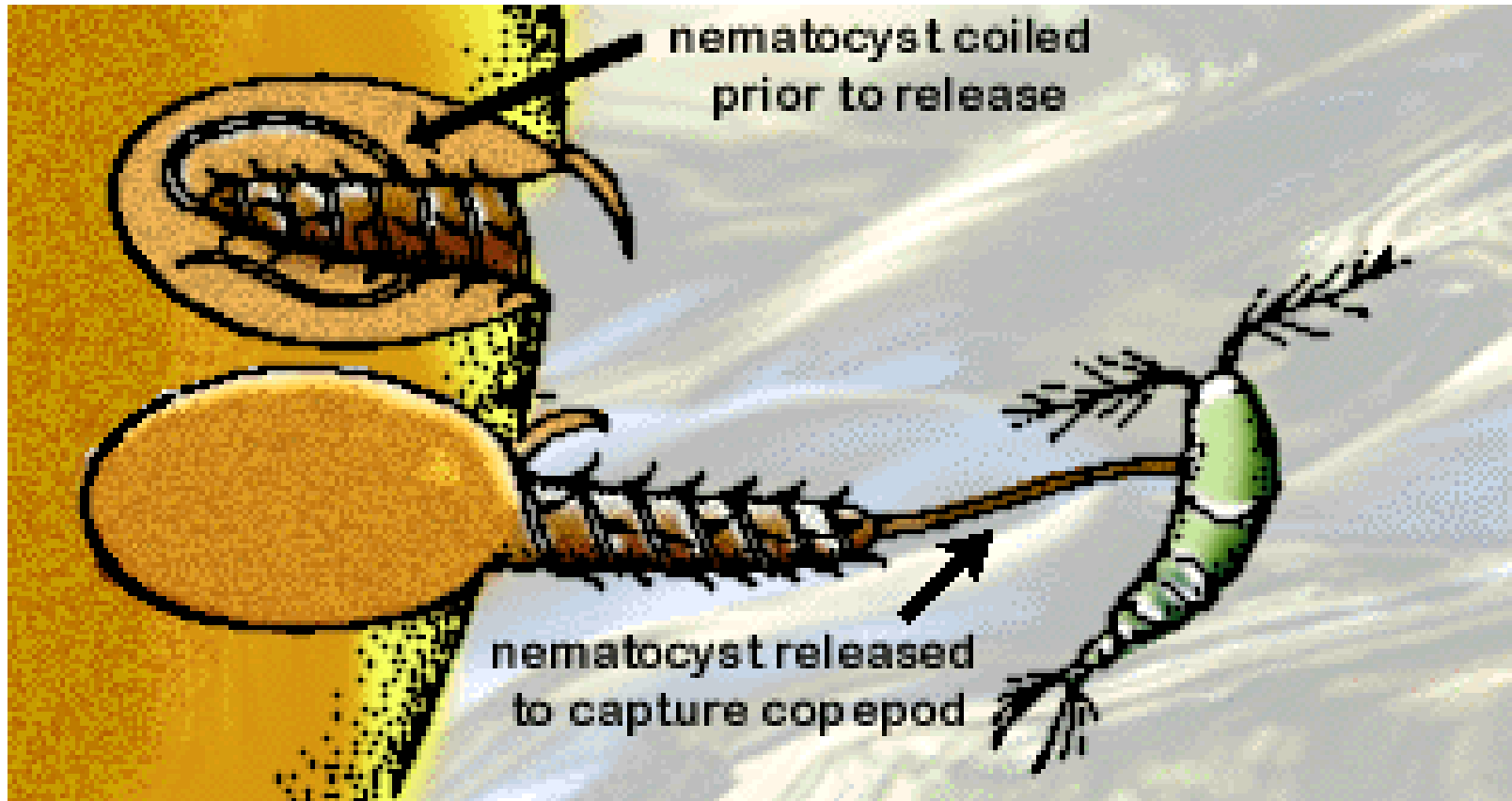


Alternation of generations in cnidarians: 2 body plans
polyp & medusa



This Phylum has nematocysts for feeding & defense:





The stinging cells (nematocyst) found in coral tentacles in coiled and released positions.

