

Cnidaria Quiz Outline (Life Sciences 11)

SUMMARY:

1. Cnidarians and poriferans are both in kingdom animalia. What two traits does this mean that they both have? (eukaryotic, multicellular)
2. What is the life cycle of a cnidarian such as a sea anemone, hydra, or coral?
3. What is the life cycle of a true jellyfish?
4. Describe the symmetry of a jellyfish.
5. List the germ layers in a jellyfish and describe which of the following structures arise from each (nervous system, gastrovascular cavity, cnidocysts, anus, epidermis, mouth)
6. Label and describe the key structures and features of a polyp. In which major group(s) of cnidarians would polyp be found?
7. Label and describe the key structures and features of a medusa. In which major group(s) of cnidarians would medusa be found?
8. Compare and contrast sexual and asexual reproduction in terms of the number of parents, and how similar or different the offspring are to their parents.
9. Describe how cnidarians capture and digest food. What kinds of food do cnidarians eat (hint: what does carnivore mean)?
10. Explain what a cnidocyte is and how it works.
11. List and describe the key structures within a rhopalium. Describe what a nerve net is.
12. What is the purpose of a skeleton? Compare and contrast endoskeletons, exoskeletons, and hydrostatic skeletons. What kinds of skeletons are exhibited in different groups of cnidarians?
13. Describe the function of epitheliomuscular cells. Explain why these cells are necessary in a cnidarian. (Hint: what tissue type are cnidarians missing?)
14. List the four major taxa of Cnidarians and describe their key features. Match the major taxa to the Latin names of their groups. (Note: Coral and sea anemones are in the same Class – Anthozoa – but different Orders; I chose not to list the names of their Orders because I did not want you to get bogged down memorizing them.)

STRUCTURE OF QUIZ:

This quiz will be worth approximately 20 marks in total. It is entirely multiple choice.

VOCABULARY:

(Disclaimer: This is not meant to be an exhaustive list. Vocabulary words may appear on the test that are not in this list.)

- Kingdom Animalia
- Phylum Cnidaria
- Other taxa:
 - o Scyphozoa
 - o Hydrozoa
 - o Anthozoa
- Symmetry:
 - o Radial symmetry
 - o Asymmetry (no symmetry)
- Germ layer
 - o Endoderm (skin, nervous system)
 - o Ectoderm (GVC, lungs)
- Polyp
 - o Sessile
 - o Budding
 - o Mouth
 - o Tentacle
 - o Digestive cavity (gastrovascular cavity, GVC)
 - o Epidermis
 - o Mesoglea
 - o Basal plate
- Medusa
 - o Epidermis
 - o Mesoglea
 - o Tentacle
 - o Digestive cavity (gastrovascular cavity, GVC)
- Asexual reproduction
- Sexual reproduction
- Cnidocytes
- Incomplete gut
- Nerve net
- Rhopalium
 - o Eye spot
 - o Chemoreceptor
 - o Statocyst

- Skeleton
 - o Endoskeleton
 - o Exoskeleton
 - o Hydrostatic skeleton
- Epitheliomuscular cell
- Hydra (Hydrozoa)
- Jellyfish (Scyphozoa)
 - o GFP
- Sea Anemone (Anthozoa)
 - o Acrorhagi
- Coral (Anthozoa)
 - o Calcium carbonate (CaCO_3)
 - o Coral reef
 - o Symbiotic relationship: algae, coral
 - o Bleaching

VOCABULARY NOT TESTED

- Bilateral symmetry
- Embryo and germ layer words:
 - o Archenteron
 - o Blastopore
 - o Diploblastic
 - o Triploblastic
 - o Blastula
 - o Gastrula
 - o Mesoderm
 - o Blastocoel
 - o Cleavage
- Oral arm
- Gonads
- Bell
- Coelenteron
- Reproductive tissue
- Nematocyst
- Ocean acidification

PRIMARY STUDY MATERIAL:

- Cnidaria Powerpoint
- Hydra Lab
- Class notes: especially labelled diagram with the different germ-layer-derived structures colour-coded.
- Textbook pg 564-569 (section 26-3; though note that they may use slightly different terminology or emphasize different points)