**Finals Study Guide: Invertebrates** Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_

Please complete this study guide on a separate sheet of paper! This study guide is for the lab practical, please review previous study guides from other tests for final review! This study guide is NOT the only thing to help you study for your final (review worksheets, notes from class, and anything on Ms. Galipeau’s webpage resources) GOOD LUCK! ☺

**Porifora and Cnidarians: Sponges, Jellies, Anemones, Corals, and Comb Jellies**

1. Why is it said that sponges are not composed of true cells?
2. Be able to label and define the following on a sponge: Ostia, Osculum, spicules
3. Describe the feeding process of a sponge.
4. Describe the flow of water through a sponge.
5. Explain the reproductive practices of a sponge.
6. Be able to describe each different type of sponge.
7. Describe what it means to have radial symmetry.
8. What are the 4 main groups of cnidarians?
9. Explain the purpose of a nematocyst and how it works.
10. Comb jellies belong to which phylum?
11. Draw, label, and explain the general life cycle of a Cnidarian.
12. Coral is made up of thousands of structures called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
13. Why does coral bleach?
14. How is the body plan of a cnidarian similar to that of a sponge?

**Annelids: Bilaterally Symmetrical Worms**

1. What does it mean to be bilaterally symmetrical and why this is an advantage?
2. Why is the body structure of a bilaterally symmetrical worm the “next step” in evolution?
3. Explain dorsal, ventral, anterior, and posterior.
4. Explain the life cycle of a liver fluke.
5. How does a tapeworm receive nutrients?
6. Which phylum of worm contains a large proboscis, and what is a proboscis?

**Mollusks (cephalopod, bivalves, gastropods)**

1. What is a mantle and what is its purpose?
2. Know each class of the Mollusca, what makes them unique, and give examples of each.
3. Know the basic structure, as well as organs, of the Bivalvia class.
4. What are siphons and what is their function?
5. How do bivalves typically respire and feed?
6. How are pearls created?
7. Understand the basic biological functions of a cephalopod.
8. Describe behaviors which are unique to the cephalopods in the Mollusca phylum.
9. What is the Latin meaning of the word Cephalopod?
10. What are chromatophores? What happens if you rub the squids chromatophores?
11. How do squids protect themselves from predators?
12. Where does the squid fit into the food web?
13. What is parsimony?

**Arthropods (crustaceans)**

1. What are 3 characteristics all arthropods have?
2. What are the 4 main types of arthropods?
3. Describe why an organism needs to molt and how they use this to grow.
4. About how long does it take an arthropod shell to completely harden?
5. Differentiate between the small crustaceans (Copepods, barnacles, Isopods, and Euphausiids).
6. Know and differentiate between the other classes in the Arthropod phylum.
7. What are the 3 advantages to having jointed legs?
8. What do arthropods use to sense their environment?
9. How does the exoskeleton help arthropods dominate the ocean?

**Echinoderms:**

1. What does Echinodermata mean and which classes are in this phylum? Be able to give examples of the classes.
2. List 3 examples of echinoderms.
3. What is the internal skeleton of an echinoderm made of?
4. Describe and echinoderms water vascular system.
5. Describe feeding and digestion, the nervous system, and the common reproduction practices of the echinoderms.
6. What does an echinoderm use its tube feet for?
7. How does a sea urchin move?
8. Why are sea cucumbers called vacuum cleaners of deep sea?

**\*\*Know the Phylum and Classes of the invertebrates and familiar with the vocabulary below**

Phylum and Classes of Invertebrates

Phylum Porifera

Phylum Cnidaria

* Class Hydrozoa
* Class Scyphozoa
* Class Anthozoa
* Class Cubozoa

Phylum Annelida (do not need to know classes)

Phylum Mollusca

* Class Gastropoda
* Class Bivalvia
* Class Cephalopoda

Phylum Arthropoda (do not need to know classes)

* Subphylum Crustacea

Phylum Echinodermata (do not need to know classes)

**Marine Invertebrate Vocabulary (minus phyla and classes)**

Porifera

Sessile

Ostia

Osculum

Spicules

Cnidaria

Nematocysts

Polyp

Medusa

Sea anemones

Corals

Bilateral Symmetry

Anterior

Posterior

Dorsal

Ventral

Annelids

Mantle

Radula

Foot (mollusks)

Mantle cavity

Siphon

Valves (mollusks)

Ink sac

Pen

Spermatophore

Exoskeleton

Endoskeleton

Molt

Antennae

Cephalothorax

Abdomen

Radial symmetry

Water vascular system

Tube feet