

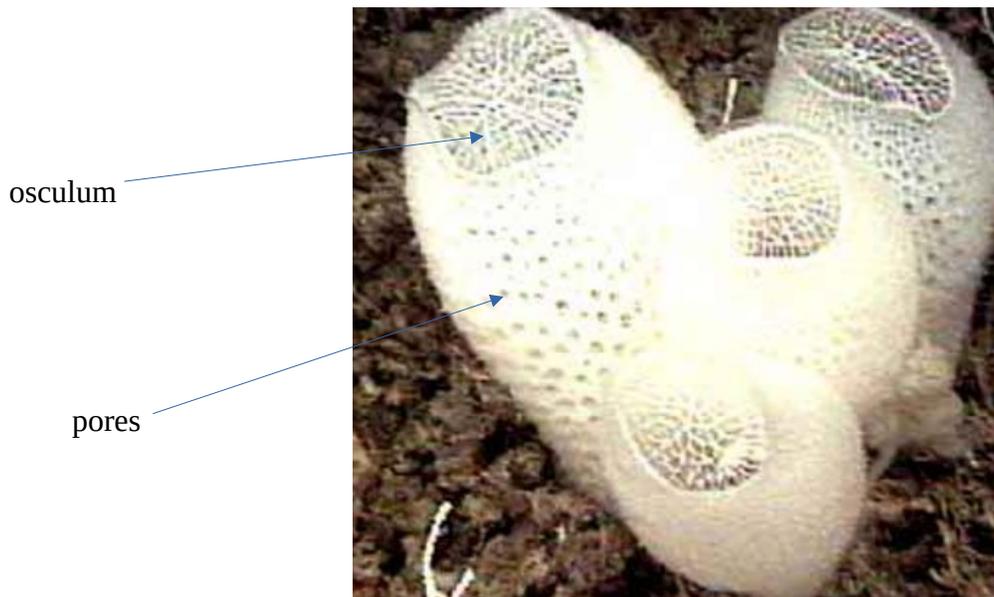
Homework 2
The Classification of Animals

1. Find and submit three images of sponges (make sure they are animals, not man-made sponges).





2. Label the osculum and the pores in the picture below.

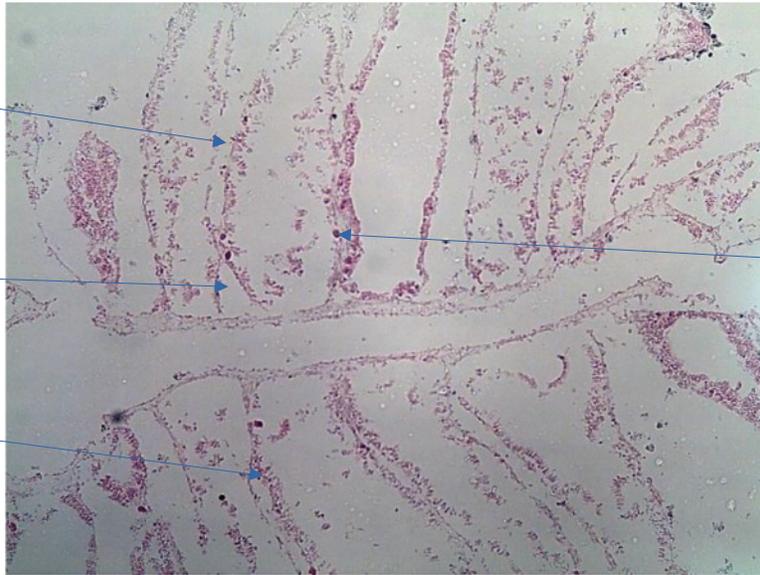


3. Label the following structures in the picture below: epidermal cells, choanocytes, amoebocytes, and mesohyl.

Epidermal cells

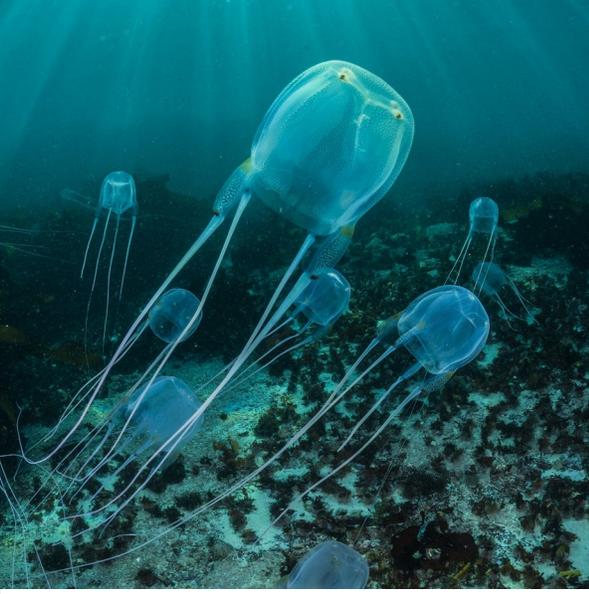
mesohyl

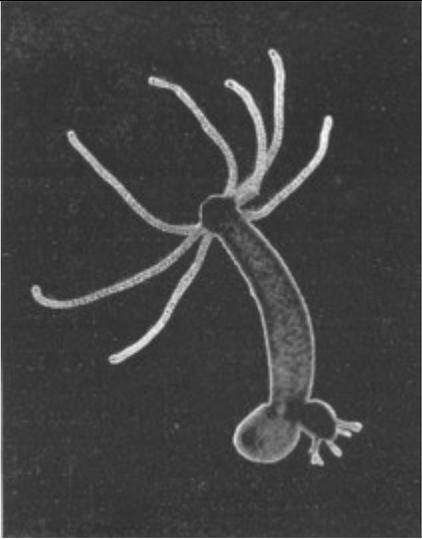
choanocytes



amoebocytes

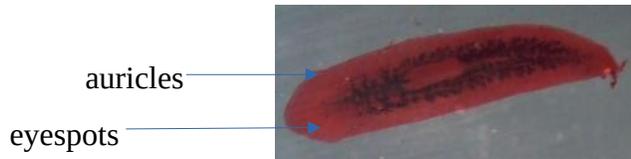
4. Find five images of cnidarians and place the image in the first column of the results table. Include a jelly, a coral, a sea anemone, a hydra, and one other cnidarian of your choice. In the second column, list which type of body form the animal has, polyp or medusa.

Name of Specimen	Body Form
	medusa

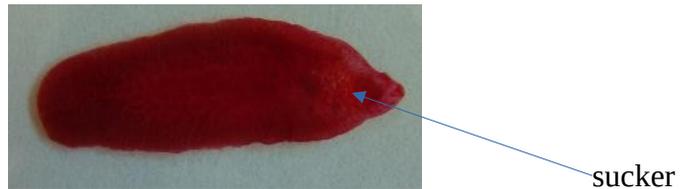
Name of Specimen	Body Form
 <p data-bbox="180 583 771 621">A large, brain-like coral specimen (brain coral) on a sandy ocean floor. The coral has a complex, maze-like pattern of ridges and grooves. It is surrounded by other smaller coral structures and is set against a blue background of the ocean.</p>	polyp
 <p data-bbox="180 1014 771 1052">A close-up of a sea anemone with many green tentacles. The tentacles are long and thin, with a green tip. The body of the anemone is a reddish-orange color. The background is a deep blue.</p>	polyp
 <p data-bbox="180 1591 771 1627">A translucent medusa (jellyfish) with long tentacles. The medusa is shown against a dark background. It has a bell-shaped body with a central oral groove and several long, thin tentacles extending from the margin. The base of the medusa is attached to a small, rounded structure.</p>	medusa at the moment

Name of Specimen	Body Form
 <p data-bbox="177 611 769 646">Stalked jellyfish</p>	<p data-bbox="769 191 1351 233">Medusa (attached)</p>

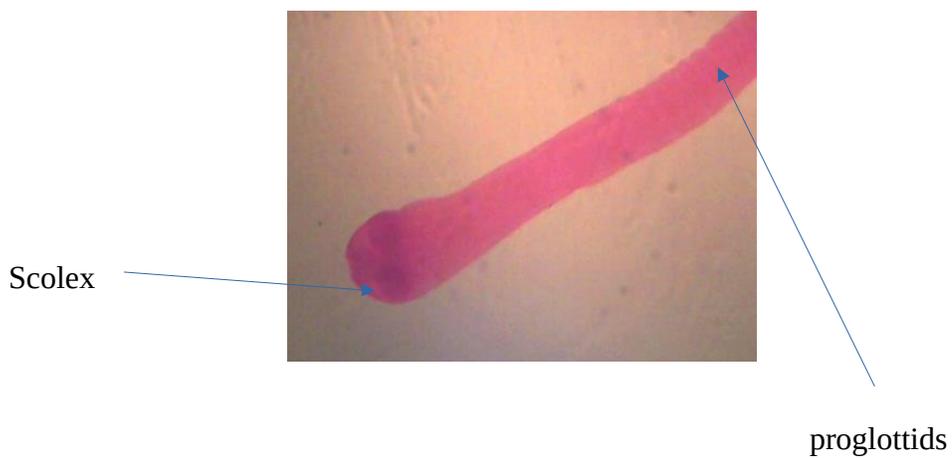
5. Label the eyespots and auricles on this planaria picture.



6. Label the sucker on this fluke picture.

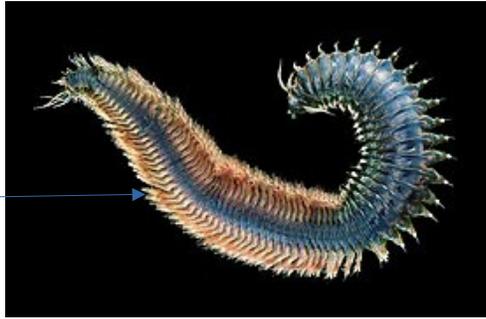


7. Label the scolex and proglottids in this picture of a tapeworm.



8. Label the parapodia on this picture of a *Nereis* specimen.

parapodia



9. Label the clitellum in this earthworm picture.

clitellum



10. Label the sucker in this leech picture.



sucker

11. Find seven images of mollusks and place the images in the first column of the results table. Include at least one example of each group of mollusks. In the second column, list which group the animal belongs to.

Name of Specimen	Type of Specimen: Gastropod, Bivalve, or Cephalopod
 <p data-bbox="175 1787 505 1818">Giant african land snail</p>	gastropod

Name of Specimen

Type of Specimen: Gastropod, Bivalve, or Cephalopod



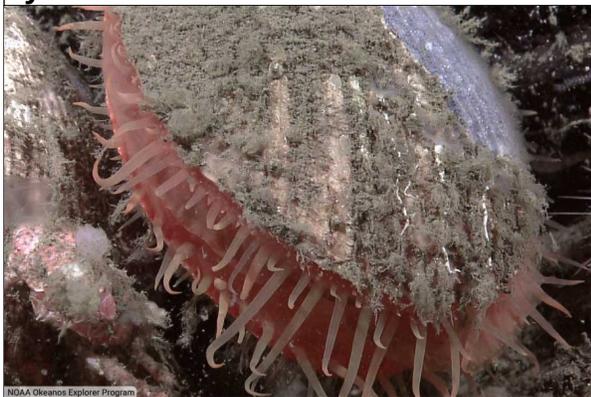
bivalve

Marko Poplasen/Shutterstock.com
mussel



bivalve

oyster



bivalve

NOAA Okeanos Explorer Program
scallop

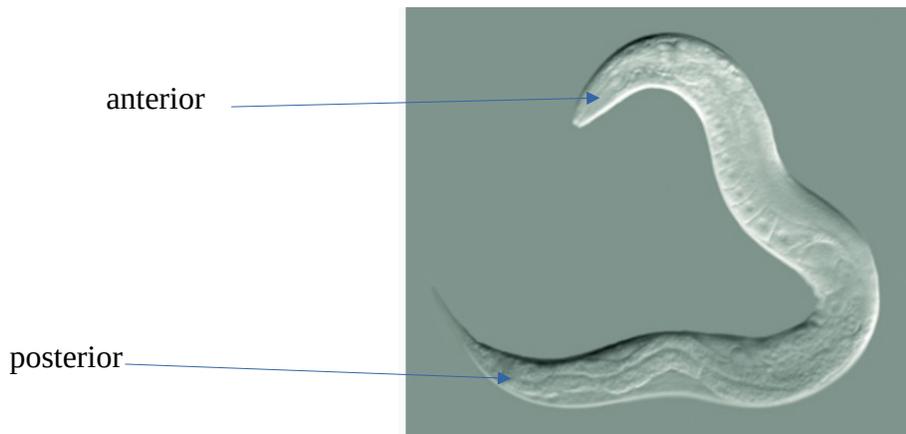


bivalve

Diveivanov/Shutterstock.com
clam

Name of Specimen	Type of Specimen: Gastropod, Bivalve, or Cephalopod
 <p data-bbox="175 619 292 653">abalone</p>	<p data-bbox="766 226 868 262">bivalve</p>
 <p data-bbox="175 1050 292 1083">cuttlefish</p>	

12. Label the anterior and posterior ends of the nematode in the picture below.



13. Find five images of arthropods and place the images in the first column of the results table. Include at least one example of each group of arthropods. In the second column, list which group the animal belongs to.

Name of Specimen	Type of Specimen: Chelicerate, Myriapod, or Pancrustacean
 <p data-bbox="175 617 764 653">centipede</p>	<p data-bbox="764 226 1354 262">myriapod</p>
 <p data-bbox="175 1083 764 1119">milipede</p>	<p data-bbox="764 653 1354 688">myriapod</p>
 <p data-bbox="175 1514 764 1549">fly</p>	<p data-bbox="764 1083 1354 1119">pancrustacean</p>
	<p data-bbox="764 1514 1354 1549">Chelicerate</p>

Name of Specimen	Type of Specimen: Chelicerate, Myriapod, or Pancrustacean
 <p data-bbox="175 667 764 701">Camel spider</p>	
 <p data-bbox="175 1094 764 1129">harvestman</p>	Chelicerate

14. Complete and submit the Review Questions from the Lab Manual.

Review Questions

1. Complete the following chart

Phylum	Well Defined Tissues: Yes or No	Type of Symmetry: Asymmetrical, Radial, or Bilateral	Diploblastic, Triploblastic, or NA	Protostome, Deuterostome, or NA	Lophotrochozoan, Ecdysozoan, or NA
Porifera	no	asymmetrical	NA	NA	NA
Cnidaria	yes	radial	diploblastic	NA	NA
Platyhelminthes	yes	Bilateral	Triploblastic	Protostome	Lophotrochozoan
Annelida	yes	Bilateral	Triploblastic	Protostome	Lophotrochozoan
Mollusca	yes	Bilateral	Triploblastic	Protostome	Lophotrochozoan
Nematoda	yes	Bilateral	Triploblastic	Protostome	Ecdysozoan
Arthropoda	yes	Bilateral	Triploblastic	Protostome	Ecdysozoan

2. A new species of animal is discovered. It has bilateral symmetry and two pairs of jointed appendages per segment. What phylum should this animal belong to? Which group within this phylum does the animal belong to? It should belong in Arthropoda in the group Myriapoda.

3. A new animal with radial symmetry and tentacles that can sting has been discovered. What phylum should it be placed in? It should be placed in Cnidaria.