EXPERIMENT 9: ANIMAL DIVERSITY – INVERTEBRATES AND VERTEBRATES

Course Learning Outcome:
Solve basic problems related to transport system processes, mechanisms for adaptations in living things, ecological and environmental issues in biology.
(C3, PLO 2, CTPS 3, MQF LOC ii)

Learning Outcomes:

At the end of this lesson, students should be able to:

i. State the evolutionary relationships of kingdom animalia.
ii. Identify unique characteristics of invertebrates and vertebrates.

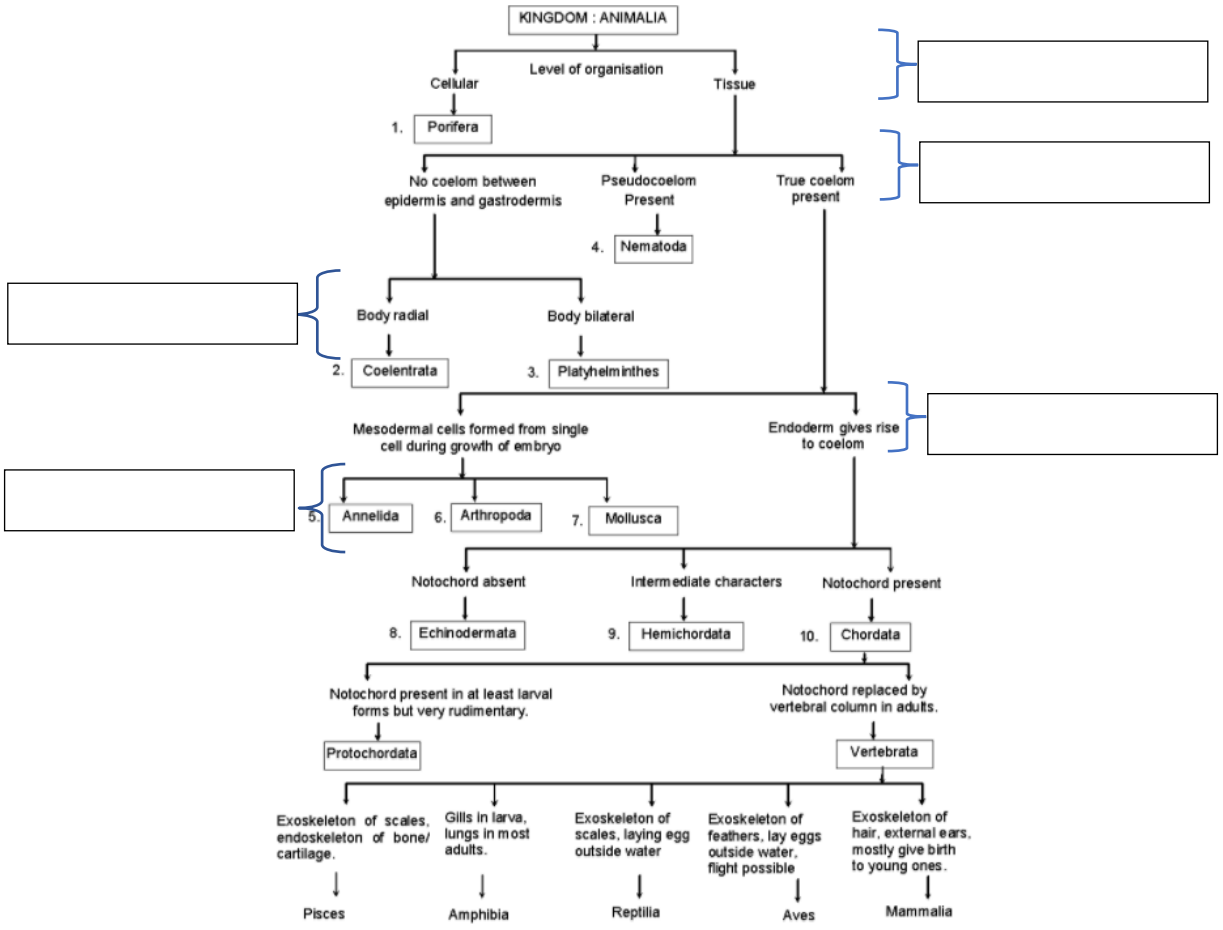
Student Learning Time (SLT):

Face-to-face	Non face-to-face
1 hour	1 hour

Direction : Read over the lab manual and then answer the following questions.

Introduction

1. Complete the diagram below which show the evolutionary relationships of kingdom animalia.



2. Kingdom animalia consists of various multicellular eukaryotic animals.
   Give **ONE** example of vertebrates and invertebrates.
   Vertebrates : _____
   Invertebrates : _____

3. State the main difference between vertebrates and invertebrates.
   Vertebrates : _____
   Invertebrates : _____

4. State all the phyla of vertebrates and invertebrates.
   Vertebrates :

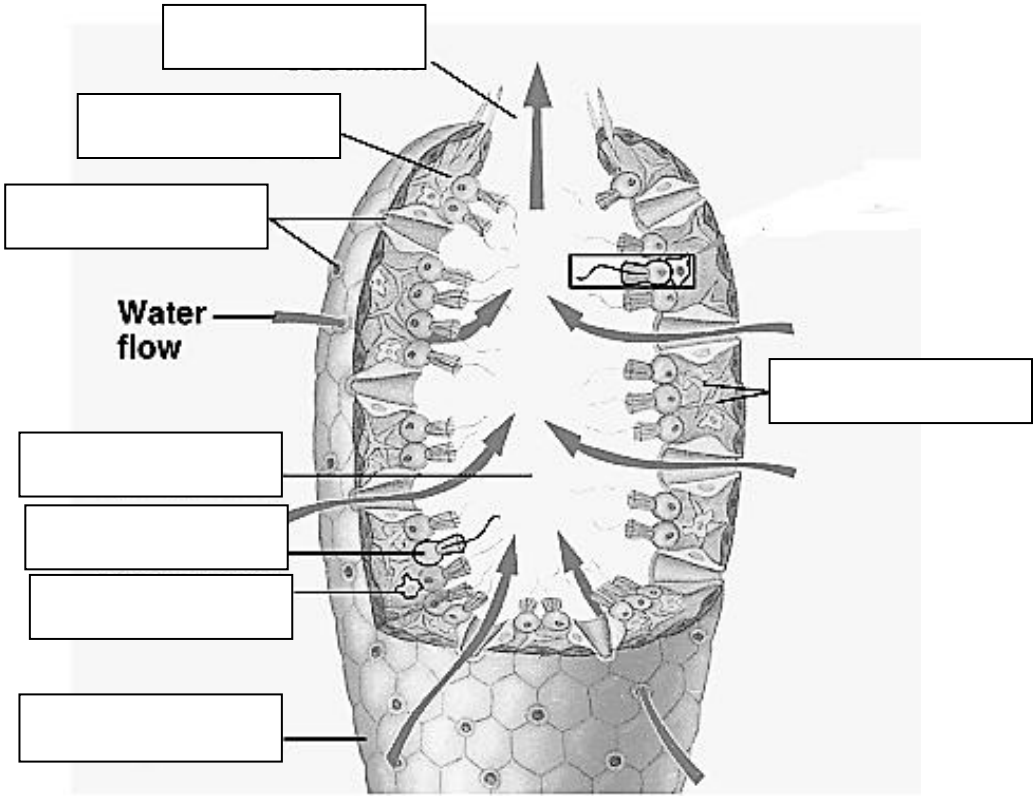
   _____

   Invertebrates :

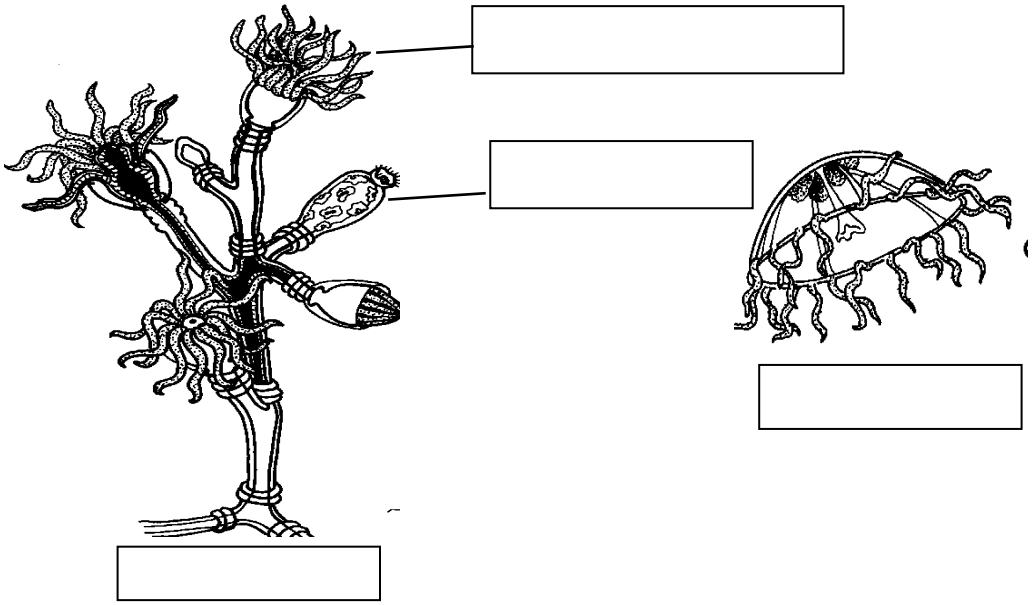
   _____
   _____
   _____
   _____
   _____
   _____

Expreriment :

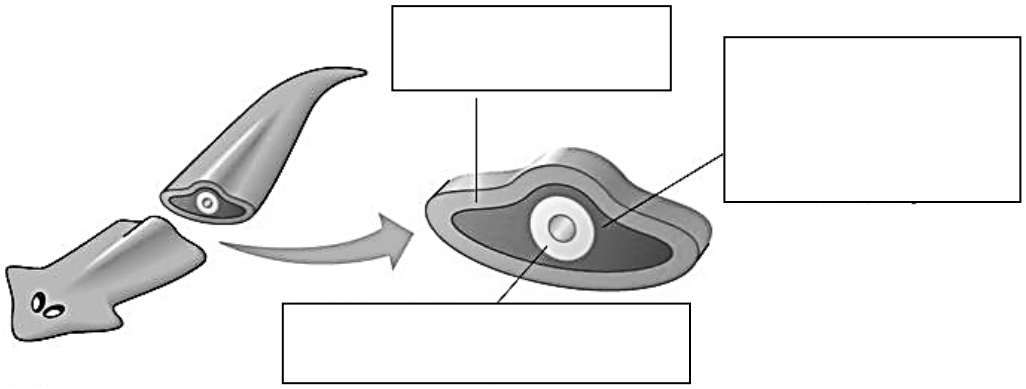
Identify the following structures :



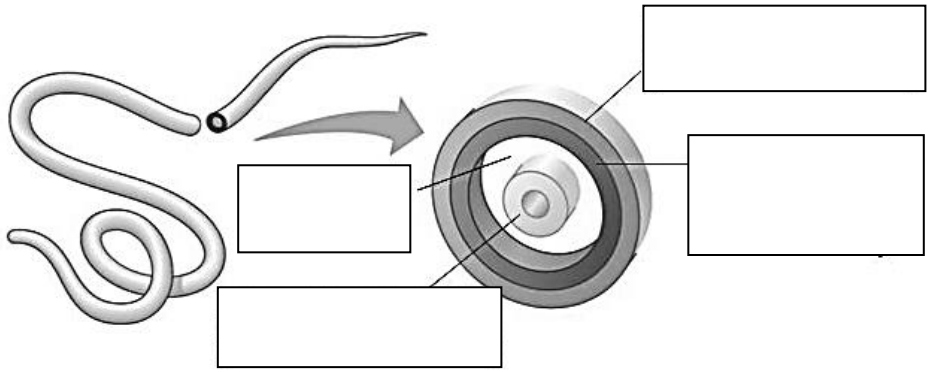
Invertebrates : Phylum Porifera (e.g. _____)



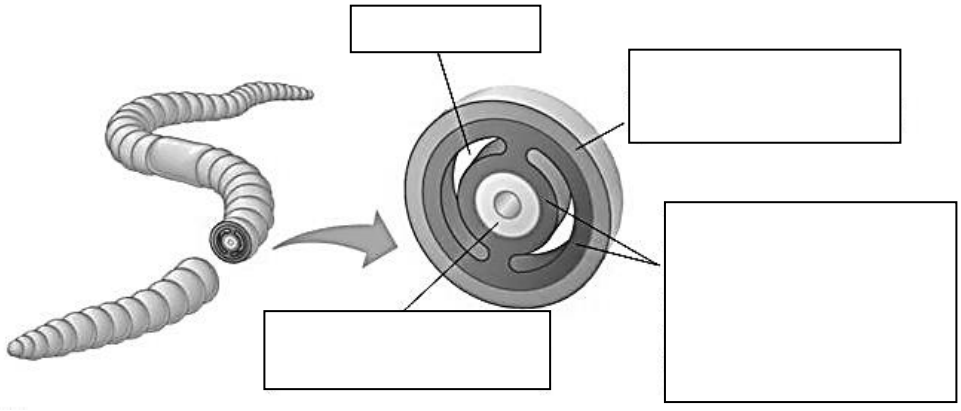
Invertebrates : Phylum Cnidaria (e.g. _____)



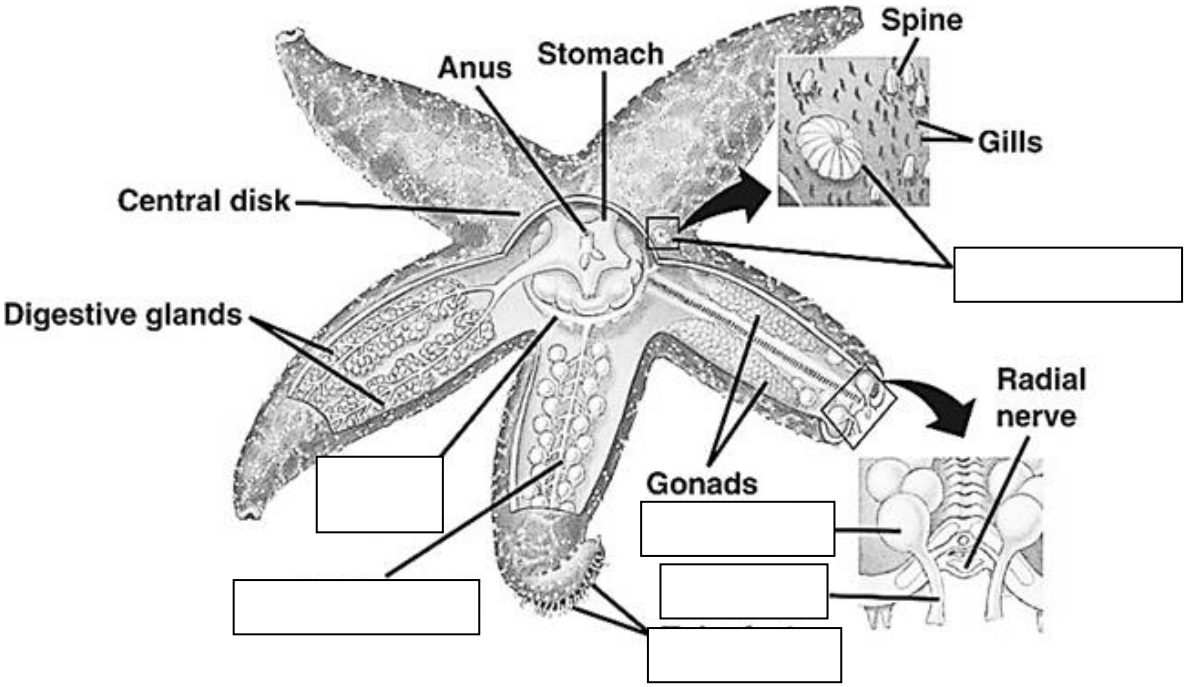
Invertebrates : Phylum Platyhelminthes (e.g. _____)



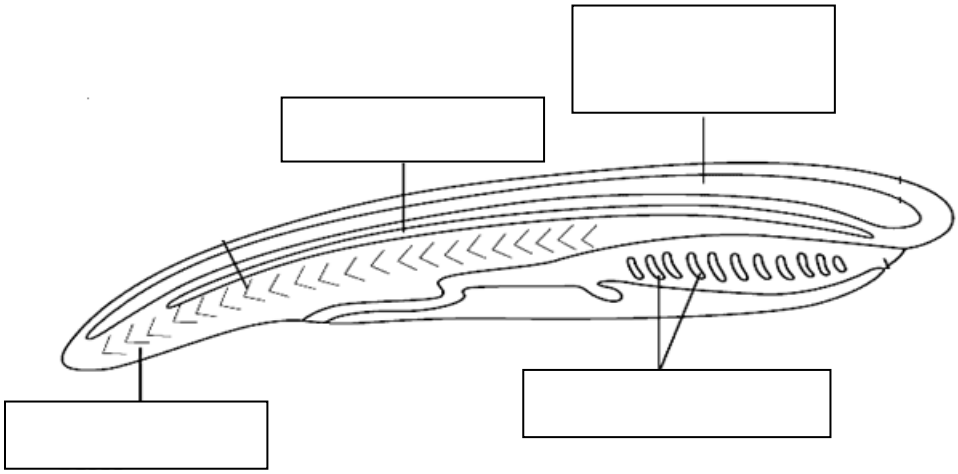
Invertebrates : Phylum Nematoda (e.g. _____)



Invertebrates : Phylum Annelida (e.g. _____)



Invertebrates : Phylum Echinodermata (e.g. _____)



Vertebrates : Phylum Chordata (e.g. _____)