Unit 24 · Animalia: arthropods to chordates

WORKSHEET

Full marks 35

Name _____ Class _____ Roll no. _____ Date _____ Marks _____ / 35

1 Key words [4]

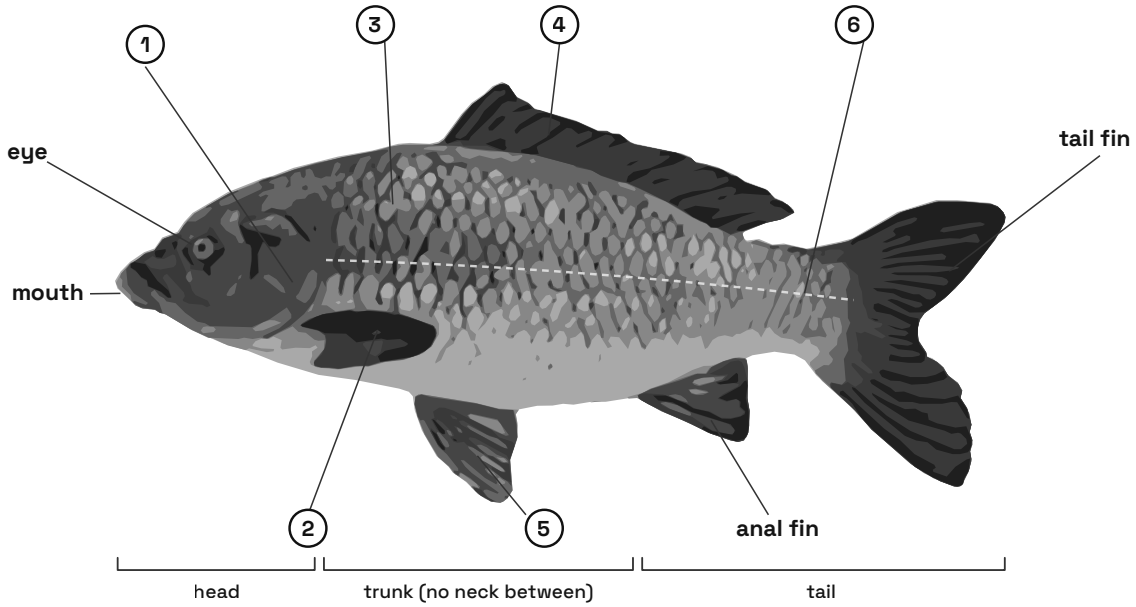
Fill in the blanks with words from the box. Two words in the box are not needed. Each blank carries 0.5 mark.

ecdysis	**hemocyanin**	**madreporite**	**notochord**	**ommatidia**	**parapodia**	**pedicellariae**
radula	**spongocoel**	**syrinx**				

An arthropod sheds its chitin exoskeleton as it grows; this is molting or _____. A compound eye is made of many units, the _____. Mollusks rasp their food with a ribbon of tiny teeth, the _____. The blue, copper-containing pigment in a snail's blood is _____. Sea water enters a starfish's water vascular system through a sieve plate, the _____. The tiny pincers among an echinoderm's spines are its _____. The flexible rod along the back of every chordate embryo is the _____. A bird's voice comes from its _____.

2 Label the diagram [3]

The diagram shows a bony fish. Write the names of the parts 1 to 6. Each carries 0.5 mark.



1. _____ 2. _____

3. _____ 4. _____

5. _____ 6. _____

3 Multiple choice [5]

Choose the correct option for each of the following questions.

i. Which arthropod is called a living fossil? [1]

a. spider
b. *Limulus*
c. *Spirobolus*
d. lobster

ii. The locomotory organ of mollusks is the: [1]

a. tube foot
b. appendage
c. muscular foot
d. parapodium

iii. In a chordate, where is the nerve cord? [1]

a. dorsal, above the notochord, and hollow
b. ventral, below the gut, and solid
c. dorsal, below the notochord, and solid
d. ventral, double, with a ganglion in each segment

iv. In which protochordate is the notochord found only in the larva's tail? [1]

a. *Balanoglossus*
b. *Herdmania*
c. *Branchiostoma*
d. all three

v. A fish has a skeleton of cartilage, five pairs of uncovered gill slits and no swim bladder. It is: [1]

a. a cartilaginous fish, such as a shark or ray
b. a bony fish, such as rohu
c. a cyclostome, such as a lamprey
d. a lungfish

4 Very short answers [3]

Write very short answers to the following questions.

a. Which phylum is the largest in the animal kingdom, and which the second largest? [1]

b. Name the larva of a starfish. [1]

c. Why is *Limulus*, the king crab, not a true crab? [1]

5 Short answers [9]

Write short answers to the following questions.

a. Why is the hagfish not a true fish? Give reasons. [2]

b. A small animal found under a stone has two body parts, four pairs of walking legs, no antennae and book lungs. Name its subphylum and class, and give one example. [2]

c. Differentiate between complete and incomplete metamorphosis in insects, with one example of each. [2]

d. Write any three differences between a millipede and a centipede. [3]

6 Long answers [8]

Write long answers to the following questions.

a. Echinoderms are unique animals among the invertebrates. Justify the statement. [4]

b. What are the differences between a pigeon and a bat? [4]

7 Think [3]

The largest arthropod alive, the Japanese spider crab, lives in the sea, and no land insect is as big as a dog. Use what you know of the arthropod body to explain why.

8 Activity: The vertebrates around you (Activity 8.6) (not marked)

Find one animal of each class of vertebrates around your school or home and fill in the table.

Class	Animal (common name)	Two characters that place it there	Its use or harm to people
Pisces			
Amphibia			
Reptilia			
Aves			
Mammalia			

Which of your animals are warm-blooded?