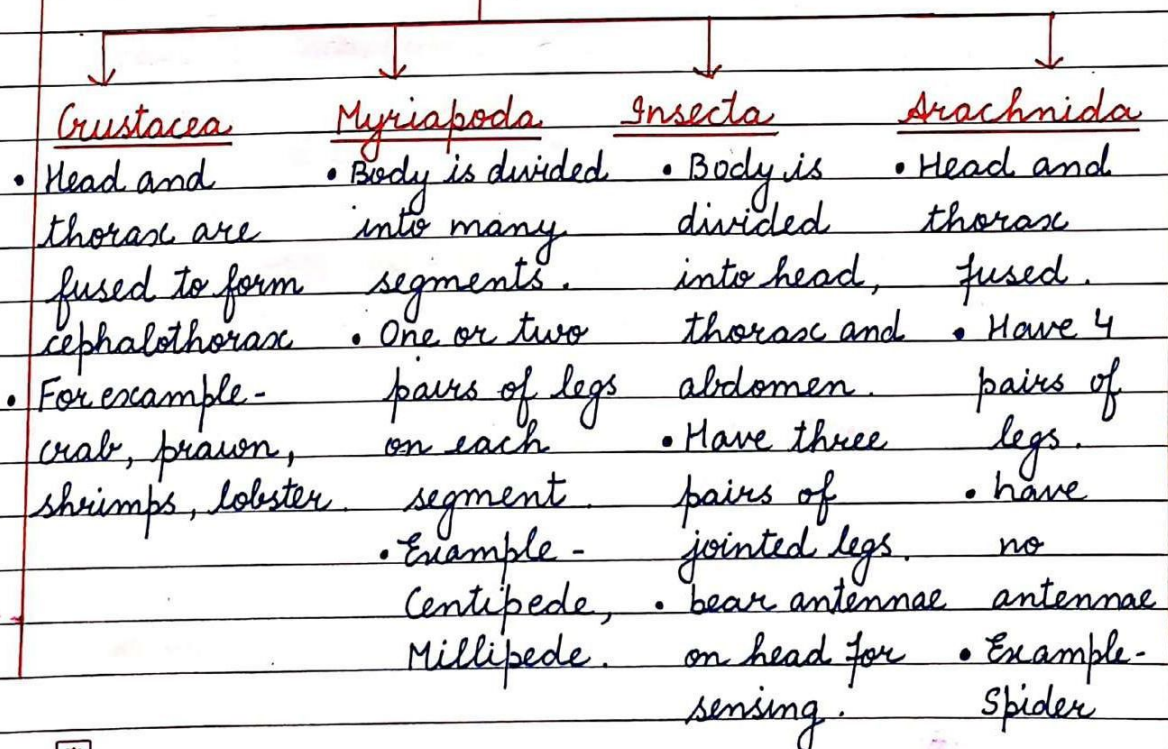


Chapter - 3. Classification of Animals.

Teacher - Ms. Nidhi Rana

Good morning Children! In the last lecture we have learnt about few characteristics of Porifera, Coelenterata, Platyhelminthes, Nematoda and Annelida. Today we are going to discuss about the other groups of invertebrates.

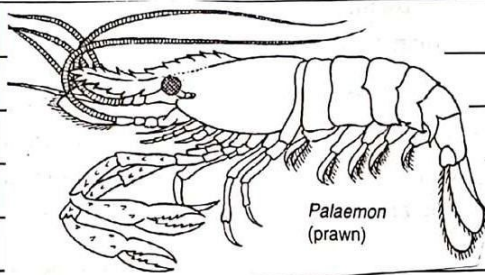
- ★ Arthropoda :
- (i) Body is divided into head, thorax and abdomen.
 - (ii) Body is covered by a tough covering of chitin.
 - (iii) These animals have jointed legs.
 - (iv) They may be terrestrial or aquatic.
 - (v) Their body is segmented and bilaterally symmetrical.
 - (vi) This phylum has the largest number of species in the animal kingdom.

Arthropoda

Class - VII Subject - Biology

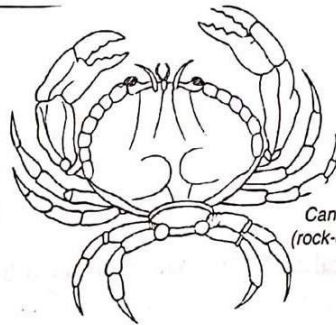
Chapter - 3.

Teacher - Ms. Nidhi Rana



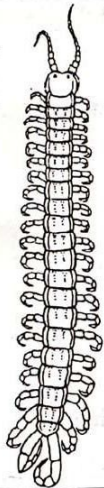
Palaemon
(prawn)

Prawn (Crustacea)

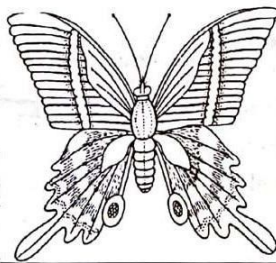


Cancer
(rock-crab)

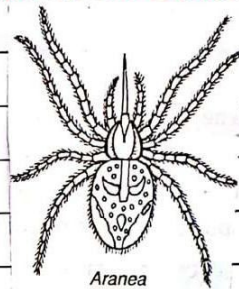
Crab (Crustacea)



Centipede (Myriapoda)



Butterfly
(Insecta)



Aranea
(spider)

(Arachnida)

Spider

★ Mollusca - (i) They have a soft body which is not segmented.

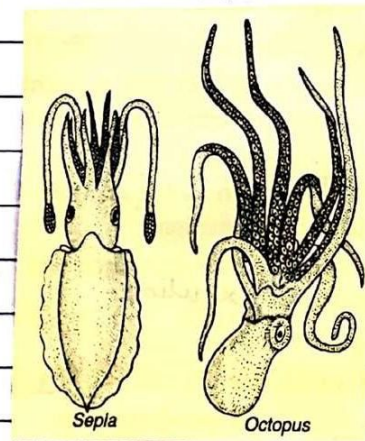
(ii) The muscular foot helps in movement.

(iii) Body enclosed in a hard shell.

(iv) Example - snail, oyster, octopus.



Snail.



Sepia

Octopus



Class - VII Subject-Biology

Chapter - 3.

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- ★ Echinodermata
- (i) Echinoderms are marine animals.
 - (ii) They have a rough and spiny skin
 - (iii) Move with the help of tube feet
 - (iv) There is a mouth on the lower side of the body and an anus on the upper side.
 - (v) Radially symmetrical bodies.
 - (vi) Example - Starfish, sea urchin.



Starfish

Home Assignment.

Do Q1 (Multiple choice questions) Pg - 38.

Do Q1, Q2, Q3, Q4 (Short Answer Questions)
on Page 38, 39.

Dear Parents,

Kindly assist your child in reading the chapter alongwith the notes so that he/she can completely understand the content covered in the notes.

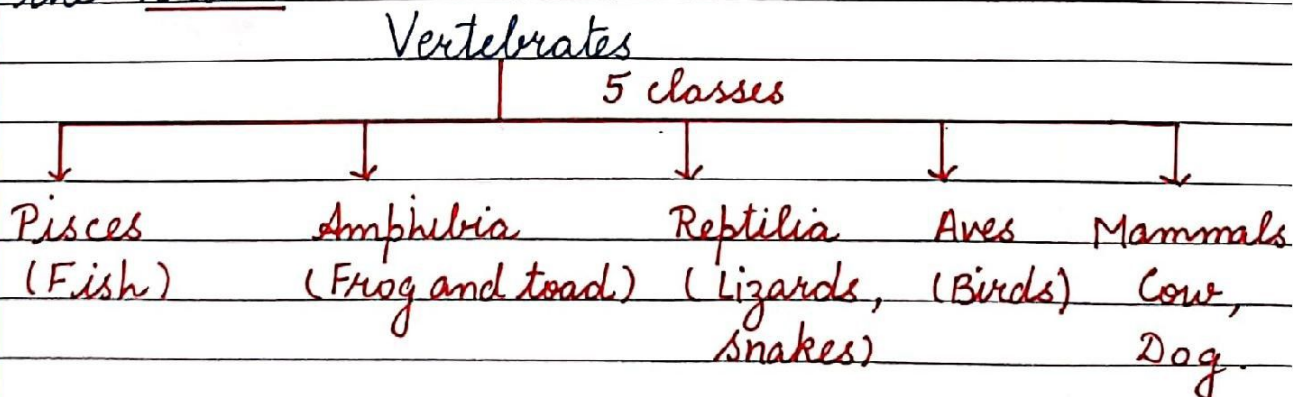


Class - VII Subject - Biology 12.08.2024
Chapter - 3 Classification of Animals
Teacher - Ms. Nidhi Rana

Good Morning children! In the last lecture we have completed with all the groups of invertebrates. Today we are going to discuss about the vertebrates and its classes.

Vertebrates : Vertebrates have a well-developed backbone or vertebral column which is made up of a number of separate bones called vertebrae.

2. All vertebrates have a closed circulatory system. (the blood circulates in all parts of the body in definite blood vessels).
3. Their nervous system is more developed than that of invertebrates.
4. Their heart may have two, three or four chambers.
5. These animals have a head, trunk and two pairs of limbs.
6. Many of their body functions are controlled by the brain.

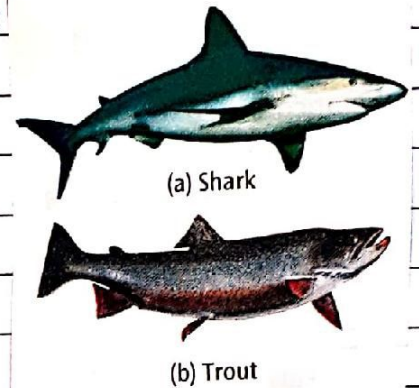


1. Pisces (Fishes) - Pisces are aquatic animals with a streamlined body.

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2. They have a heart with two chambers.
3. They breathe with the help of gills.
4. Their body is covered with scales.
5. They have fins which help them to swim.
6. They are cold-blooded animals (their body temperature changes with the temperature of the surroundings).
7. For example - shark, dogfish, rohu



2. Amphibia

1. Amphibians live partly on land and partly in water.
2. They lay their eggs in water.
3. The young frogs (tadpoles) are like fish. They swim in water and breathe through gills.
4. The adult amphibians breathe through lungs on land and skin in water.
5. They have a thin, smooth, moist and slippery skin.
6. They are cold blooded animals and have a three-chambered heart.
7. For example - Frog, toad, salamander.



3. Reptilia - Most reptiles live on land. Some live in water also.

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2. They have a rough skin and dry skin covered with scales.
3. They breathe through lungs.
4. They are cold-blooded animals with a three-chambered heart.
5. They lay eggs on land. Their eggs have a leathery shell.
6. They have two pairs of legs.
7. Examples - lizard, snake, tortoise, crocodile



Crocodile

Note - Children please learn the characteristic features of vertebrates, pisces, amphibia and reptilia

Class - VII Subject - Biology.
Chapter - 3. Classification of Animals.
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Good Morning Children! In the last lecture we have learnt about the characteristic features of fishes, amphibians and reptiles. Today we are going to discuss about the distinct features of Aves (Birds) and Mammals.

Class - Aves (Birds)

The main characteristics of aves are as follows:

1. Body covered with feathers.
 2. Birds have wings to fly. They have a streamlined body.
 3. Bones are hollow and light in weight.
 4. They are warm-blooded (their body temperature does not change with a change in the temperature of their surroundings).
 5. Jaws provided with horny beak but have no teeth.
 6. Females lay hard-shelled eggs (oviparous) example - Peacock, parrot, pigeon, sparrow.
- ★ Kiwi, ostrich, penguin, emu are flightless birds.



Class - Mammalia.

The main characteristics of mammals are as follows:

1. Mammals are mostly terrestrial animals. Their body is covered with fur or hair. They are warm-blooded.

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2. Mammals give birth to young ones.

3. Young ones suckle milk from mammary glands present in mothers.

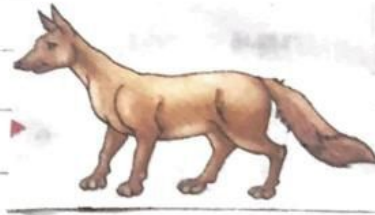
4. Possess projecting external ears.

5. They have two pairs of limbs and a tail (except humans).

Examples - Cow, dog, deer, camel, lion, human beings.

Flying mammal - Bats.

Aquatic mammal - Seal, dolphins, whales



Note - Learn two features with atleast two examples of all the phylums of invertebrates and the five classes of vertebrates.

Question / Answers.

For solutions to back exercise (Q1 to Q4) refer to solutions dated 30.7.2020.

Q5. Match the columns.

- | | |
|-----------------|-----------------|
| (i) Sponge | - Porifera |
| (ii) Snail | - Mollusca |
| (iii) Butterfly | - Arthropoda |
| (iv) Toad | - Amphibia |
| (v) Lizard | - Reptilia |
| (vi) Starfish | - Echinodermata |

Q6 Write the characteristics of class Aves with reference to their body covering and jaws.

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Ans 6. The characteristics of class Aves are :

1. Body is covered with feathers.
2. They have wings to aid flying.
3. They have scales on legs.
4. They have no teeth.
5. They have jaws provided with horny beak.
6. Body is covered with feathers.

Q7. Categorise the following animals under their appropriate columns of classification.

Ans. Worms - Ascaris, Leech, Liverfluke, Earthworm

Arthropods - Butterfly, Grasshopper, Honeybee, Scorpion.

Molluscs - Snail

Fishes - Rohu

Amphibians - Frog, Toad

Reptiles - Lizard, Snake, Turtle

Birds - Pigeon, Parrot.

Mammals - Dog, Cattle, Cow, Rat, Rabbit, Monkey, Bat, Elephant.