Chapter- 8

Animals Everywhere

STUDY NOTES

Let's Learn

- The natural home or surroundings of an animal where it lives, eats, grows and has babies is called its habitat.
- There are different varieties of animals found everywhere with different habits, behavior and body features.

Breathing in animals:

- Animals breathe to get oxygen which is needed to burn the food within their bodies and releases energy for various activities.
- Animals get the oxygen from their surroundings.
- Land animals breathe in oxygen from the air while fish and other aquatic animals take oxygen that is dissolved in water.
- Different animals have different organs for breathing.

Animals that breathe through their body surface:

- Microbes or microscopic animals like amoeba and paramecium breathe through their body surface.

Animals that breathe through air holes:

- Insects breathe through air holes on their bodies which are called as spiracles.
- The blood of insects is not red because they do not contain the oxygen carriers called haemoglobin.
- The spiracles lead to air tubes which form a fine network that reaches every tissue of the body.
- Air enters the body through this network.
- The body tissues absorb oxygen and give out carbon dioxide which is expelled from the body.

Animals that breathe through gills:

- Animals like fish, prawns, crabs, oysters and tadpoles breathe through gills.
- Gills have blood vessels in them.
- When water flows over the gills an exchange of gases takes place.
- The gills absorb oxygen from the water and release carbon dioxide from the blood.

Animals that breathe through moist skin and lungs:

- Animals like frog breathe through its lung when it is on land and breathe through its moist skin when it goes in water.

Animals that breathe through lungs:

- Birds, reptiles and mammals breathe through lungs.
- Humans are mammals.
- Our nose helps to breathe air.
- This air enters the lungs through the windpipe.
- The lungs are having blood vessels.
- When the air reaches the lungs an exchange of gases takes place between the air and the blood.
- Oxygen from the air passes into the blood and carbon dioxide from the blood passes into the air.
- The lungs expand and the air containing oxygen enters through the nose and when the lungs contract the air containing carbon dioxide comes out through the same path.
- Whales and dolphins are also mammals and have lungs to breathe in even though they live in water.

Feeding habits in animals:

- Animals need food:
  - to grow.
  - to get energy.
  - to stay healthy.
- Feeding habits of each animal differs depending on the type of food they eat.
- Their mouth parts are suited to the type of food they eat.

Animals that have beaks and claws:

- Birds have beaks and claws that helps them to grab and eat their food.

Animals that gnaw or nibble:

- Rodents like rabbits, mice and squirrels have small and sharp front teeth that helps to gnaw seeds and foods.

Animals that eat plants or herbivorous animals:

- Animals like cows, goats and giraffes have sharp fronted for biting and strong broad teeth for chewing.

- These animals eat green plants.

Animals that eat the flesh of other animals or carnivorous animals:

- Animals like the lion, tiger and cat have very sharp, pointed and curved fronted for tearing flesh.
- They also have strong grinding teeth to chew the flesh and the bones.
- They feed on the flesh of other animals.
- Flesh eating birds like eagles, kites and vultures have strong, sharp and hooked beaks and claws to catch their prey and to tear flesh.

Movement in animals:

- Animals need to move in order to:
  - search for food
  - protect themselves and their babies from being hunted
  - build resting and breeding places
- Different animals have different body parts for movements.

Animals that live on land or terrestrial animals:

- Most mammals have four limbs.
- The two at the front are called forelimbs and the two at the back are called hind limbs.
- Some animals use all their four limbs to move while others use only the hind pair.
- For example- cats and dogs uses all their forelimbs to move whereas humans use only their hind limbs to move.

Animals that live in water or aquatic animals:

- Fish have fins for swimming.
- The two paired fins are used to move forward and the unpaired fin maintains balance and the tail fin helps to change the direction of movement.
- Turtles have four paddle-like limbs to push water back and to swim.
- Penguins use their two forelimbs as flippers to push water and to swim.
- Frogs have webbed feet to swim in water but when on land they jump with the help of their long hind legs.

Insects:

- Insects have six legs which are used for their movement.
- Insects like ants and cockroaches crawl on their legs whereas a grasshopper uses its long hind legs for hopping.
- Water insects like water boatman use their legs as oars for swimming.

- Some insects have one or two pairs of wings and can fly.
- The wings of insects are different from those of birds as they have no feathers or bones or strong muscles.
- The wings of insects are made of tiny coloured scales.
- Insects move with the help of their chest muscles.
- Insects like lice and bedbugs do not have wings so they cannot fly, they can only move by crawling.

Birds:

- The wings of the bird are its forelimbs that helps it to fly.
- The wings have feathers and are attached to the breast bone with the help of strong muscles.
- These strong muscles enable the bird to flap its wing and to fly.
- The hind limbs of the birds are used
  - to land after a flight,
  - to walk, run, hop,
  - to perch,
  - to scratch the ground,
  - to catch prey,
  - to attack enemies.
- There are some birds like the emu, the ostrich, the rhea, the penguin and the kiwi which are unable to fly therefore they are called as flightless birds because their wings are too weak to fly.

Reptiles:

- Reptiles are the animals that have a dry scaly skin and lay soft shelled eggs on land.
- For example, lizard, crocodiles, turtle and tortoises.
- These animals have limbs so they crawl.
- Snakes are also reptiles but they do not have legs.
- Instead of legs snakes have scales or plates on the underside of their bodies which are attached to their ribs.
- These plates act like feet and the ribs act like legs and help in the movement of snake.
- Besides these snakes also have a flexible backbone which helps them to move forward.

Humans:

- Humans have highly developed limbs.
- Humans are able to stand, walk and run with only one pair of limbs called legs.

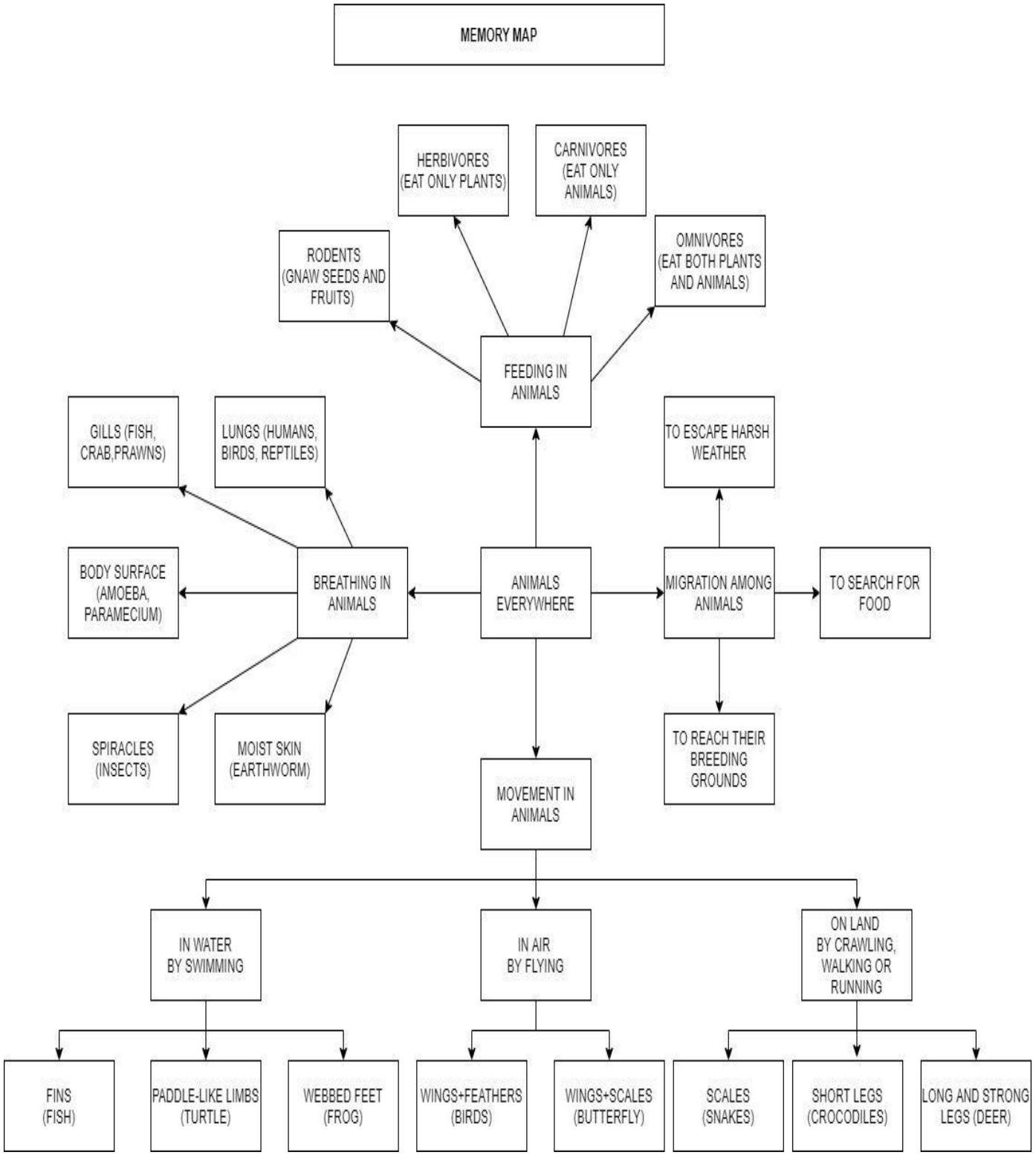
- The other pair of limbs which are called as hands are adapted to hold objects.
- The arrangement of thumb and the fingers enables humans to hold tools and do many kinds of works.
- Humans are the most developed among all animals.

Migration among animals:

- The mass movement of animals from one place to another place is known as migration.
- Animals migrate
    - to escape harsh weather,
    - to search for food and
    - to search their breeding grounds.
- Birds like storks, Siberian cranes and mallard duck visit India every winter.
- Eels are migratory fish which spent their life in river and travelled to sea to lay their eggs. With the hatching of the eggs the parent eels die and the young ones travel back to the river to start their journey.
- Locust are harmful migratory insects which destroys standing crops.
- Many kinds of butterflies also migrate. For example, Monarch butterflies fly from Canada to Mexico.
- The Arctic tern travels a distance of nearly 35,000 kilometers between the Arctic and the Antarctic twice a year.
- The European stork travels from Europe to Africa every winter and returns back to Europe with the onset of spring.

How do animals migrate?

- Some animals take the help of sea currents to migrate from one place to another place.
- Some animals like the reindeer find their direction with the help of the sun's rays.
- Birds follow the coastline.
- But the exact reason as how these animals find their way while migrating is still a mystery.



Let's Know More

I. Choose the correct answer.

1. Most mammals have two limbs/ four limbs/ six limbs.
2. Turtle/ Penguins/ frogs use for paddle like limbs to push water back and to swim.

3. The emu / crow / Arctic tern is a flightless bird.

Let's Do

A. Tick the correct answer.

1. A frog is an amphibian because it can live
   a. only on land.
   b. only in water
   c. on land and in water.
   d. none of these

2. Whales and dolphins are classified as
   a. Fishes
   b. Reptiles
   c. Mammals
   d. Amphibians

3. This animal has scales on its body.
   a. Fish
   b. Deer
   c. Zebra
   d. Ostrich

4. This bird cannot fly.
   a. Owl
   b. duck
   c. Arctic tern
   d. Ostrich

5. Locusts are harmful migratory
   a. Birds
   b. Rodents
   c. Fish
   d. Insects

6. The water boatman uses its legs as
   a. Antennae
   b. Radars
   c. Fans
   d. Oars

B. Change the underlined words to make correct statements. Rewrite the correct statements in your notebook.

1. Animals get their supply of oxygen from <u>food</u>.

2. The blood of an insect does not contain the <u>carbon dioxide</u> carrier called haemoglobin.

3. The mass movement of animals from one place to another is known as <u>hibernation.</u>

4. Gills are special organs with which all mammals breathe.
5. Mammals like ants and cockroaches crawl on their legs.

Understand and Answer

C. Write short answers.

1. Why do animals need to take in oxygen?
2. Why do animals need to move?
3. What is the difference in the way a tadpole and a frog breath?
4. What are the characteristic features of it in herbivores?
5. Why do some animals migrate?

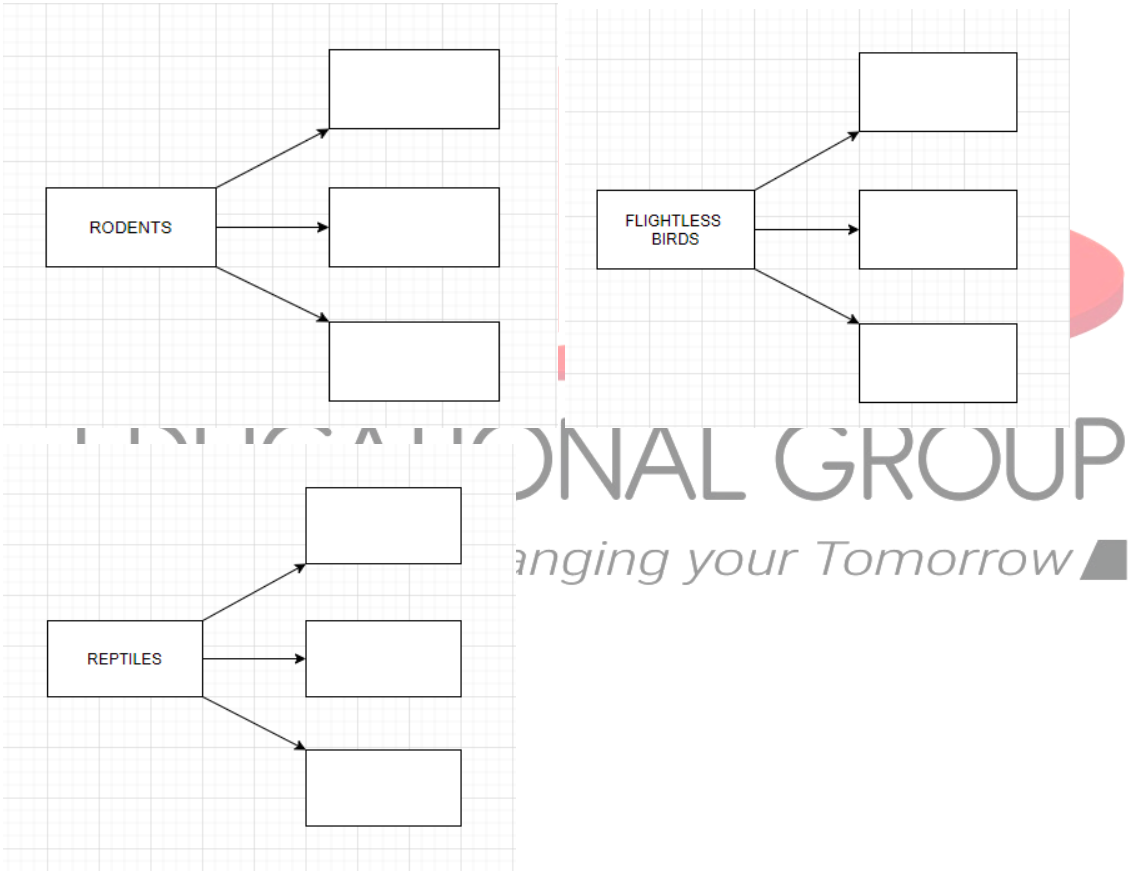
D. Answer these questions.

1. Name few animals found around you. Write one characteristic feature of each animal.
2. How is the breathing process of an insect different from that of a fish?
3. What special features help water animals to move?
4. How do insects move?
5. Snakes are reptiles without any legs. How do they move?

E. Write in the correct columns the names of the animals given in the box.

Camel pigeon monkey fish crocodile elephant crow bat grasshopper man tadpole butterfly whale amoeba prone woodpecker paramecium			
Lungs	**Gills**	**Spiracles**	**Body surfaces**

F. Fill in the names in the boxes.



Teacher's Note

- Some animals have interesting feeding habits. Collect the names of five of them and write about their food, feeding organs and feeding habits.

Improve Your GK

- Summer sleep is also called aestivation.
- North American desert tortoise, the spotted turtle, the California tiger salamander, and the water-holding frog; certain air-breathing land snails; and some insects, including bees undergo aestivation.

Answer Key

I.

1. Four
2. Turtle
3. Emu

A.

1. On land and in water
2. Mammals
3. Fish
4. Ostrich
5. Insects
6. Oars

B.

1. Their surroundings
2. Oxygen
3. Migration
4. Lungs
5. Insects

C.

1. Animals need to take in oxygen cause oxygen burns the food within their bodies and releases energy for various activities.

2. Animals need to move in order to

- **a.** search for food
- **b.** Protect themselves and their babies from being hunted
- **c.** build resting and breeding places

3. A tadpole breathes through its gills whereas an adult frog breathes through its lungs on land and through its moist skin in water.

4. Herbivores have sharp front teeth for biting and strong broad teeth for chewing their food.

5. Animals migrate:

- **a.** to escape harsh weather
- **b.** to search for food
- **c.** to reach their breeding grounds.

D.

1. Few animals found around us and one of its characteristics are as follows:

a. Fish: It breathe through its gills.
b. Cockroach: It breathe through its more air holes on its body called spiracles.
c. Rabbit: They have small and sharp front teeth which helps to gnaw the seeds and fruits.
d. Lizards: They have a dry scaly skin and lay soft shelled eggs on land.
e. Frog: It lives both on land and in water.

2. Insects breathe through air holes on their body called spiracles which are connected to air tubes that helps in exchange of gases whereas a fish have gills that helps it to breathe. When water flows over the gills an exchange of gases takes place.

3. Different water animals have different features to move. Some of the special features of some animals are mentioned below:

- Fish have fins for swimming in water.
- Turtles have four paddle-like limbs to push water back and to swim.
- Penguins use their two forelimbs as flippers to push water and to swim.
- Frogs have webbed feet to swim in water.

4. Some insects move with the help of their six legs. The legs help them to crawl and move. Whereas some other insects have one or two pairs of wings that helped them to fly.
5. Snakes are reptiles without any legs. Snakes move with the help of scales or plates on the underside of their body which are attached to their ribs. They have strong muscles and a flexible backbone which also help them to move forward.

E.

Lungs	**Gills**	**Spiracles**	**Body surfaces**
Camel Pigeon Monkey Crocodile Elephant Crow Bat Man Snake Whale Woodpecker	Fish Tadpole Prawn	Grasshopper Butterfly	Amoeba Paramecium

F.