

Chapter - 1 : How Plants Reproduce

* MIND MAP

1)

Seeds

Parts of a seed

↓
Outside parts

- Mark where the seed is attached to the fruit.
- Seed coat
- Tiny hole for water

↓
Inside parts

- Tiny Shoot
- Seed Leaf
- Tiny Root

2)

Dispersal of Seeds

(The scattering of seeds or fruit away from the mother plant)

Agents of dispersal

(i) Wind

Seeds which are very light in weight

Eg:- Madar, cotton

(iii) Animals

Seeds dispersed by animals, human beings and also seeds with hooks, spines, thorns or stiff hair.

Eg:- neem, Spear grass

(ii) Water

Seeds which can float on water

Eg:- Lotus, coconut

(iv) Explosion

Seeds whose fruit gets exploded

Eg:- Pear, balsam.

* HARD WORDS :-

1) Reproduction

2) Cotyledons

3) Germination

4) Dispersal

5) Scattering

6) Explosion

7) Hibiscus

8) Asparagus

9) Bryophyllum

10) Cultivation

* DEFINE THE FOLLOWING :-

- 1) Spores :- Spores are single cells by which flowerless plants reproduce themselves.
- 2) Dispersal :- Scattering of seeds away from the mother plant by natural agents is called dispersal.
- 3) Fertilisers :- Chemicals used to improve the quality of soil are called fertilisers.
- 4) Manure :- Animal wastes like cow dung and horse dung, mixed with soil, used for improving the fertility of the soil is called manure.

* ANSWER THE FOLLOWING QUESTIONS :-

- 1) What is germination? What are the conditions needed for germination?

Ans :- $\Rightarrow$ The development of a new plant from a seed is called germination.

$\Rightarrow$ A seed needs water, air and warmth for germination.

2) Why does a plant produce many seeds?

Ans :- A plant produce many seeds so that enough seeds get a chance to grow into new plants.

3) Why do the shoots grow upwards and the roots grow downwards?

Ans :- $\Rightarrow$ The shoot grows upwards towards sunlight so that it may perform photosynthesis process in leaves with the help of sunlight.

$\Rightarrow$ The root always grows downwards as it has to take water and minerals from the soil.

4) Name the agents of dispersal. Give examples.

Ans :- Agents of dispersal are :-

- i) Wind. Examples :- Madar, Cotton, maple, etc.
- ii) Water. Examples :- Lotus, Coconut, etc.
- iii) Animals. Examples :- Neem, Xanthium, Spear grass, etc.
- iv) Explosion. Examples :- Peas, lady's finger, balsam, etc.

5) What should a farmer do to get a high yield from his crop? Give any three points.

Ans :- For getting high yield from his crop a farmer should

- use good quality and healthy seeds for sowing the crop.
- prepare the soil well.
- add manure and fertilisers to improve the soil.

6) How should the grain be stored after harvesting?

Ans :- The grains should be stored in dry, water-proof and insect-proof storage bins after harvesting.

- This is because to ensure that grains are not spoilt by moisture/dampness or eaten by rats, moles, birds, insects or squirrels.

7) In what way should a farmer protect his crops?

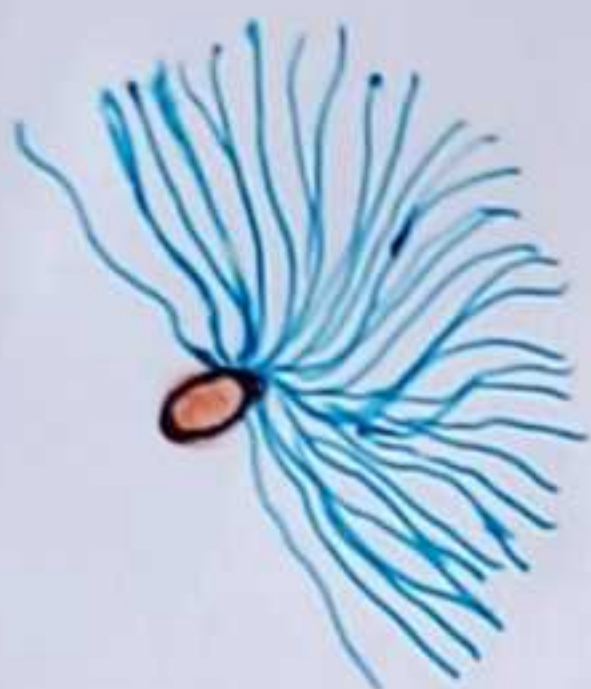
Ans :- Farmers should protect the crops from:-

- grazing animals like goats, cows, buffaloes etc., by building fences.
- disease and insects by using insecticides and pesticides in the correct quantity.

* DIAGRAMS :-

* Agents of Dispersal

i) By wind



Madar



Dandelion

ii) By water



Lotus



Coconut

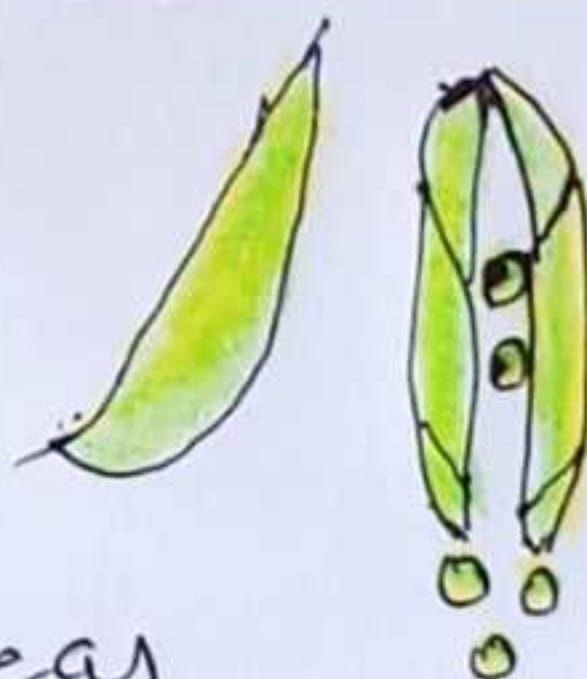
iii) By Animal



Xanthium

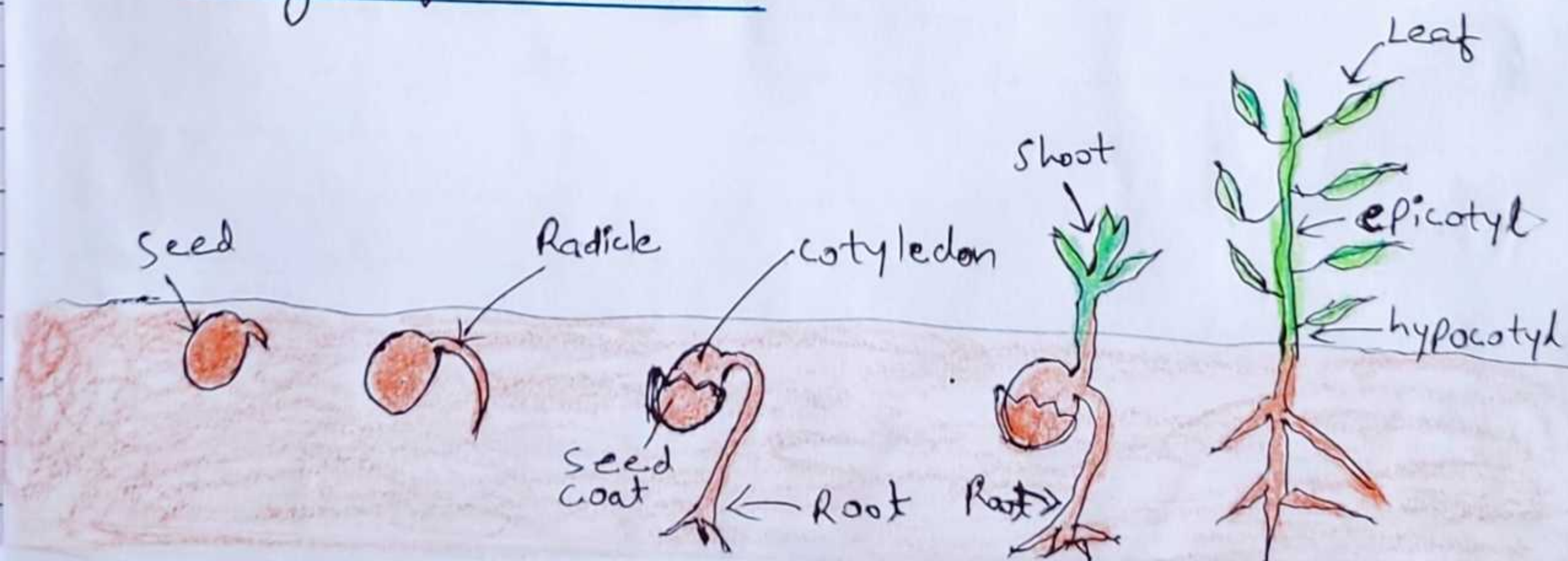
Spear
Grass

iv) By Explosion



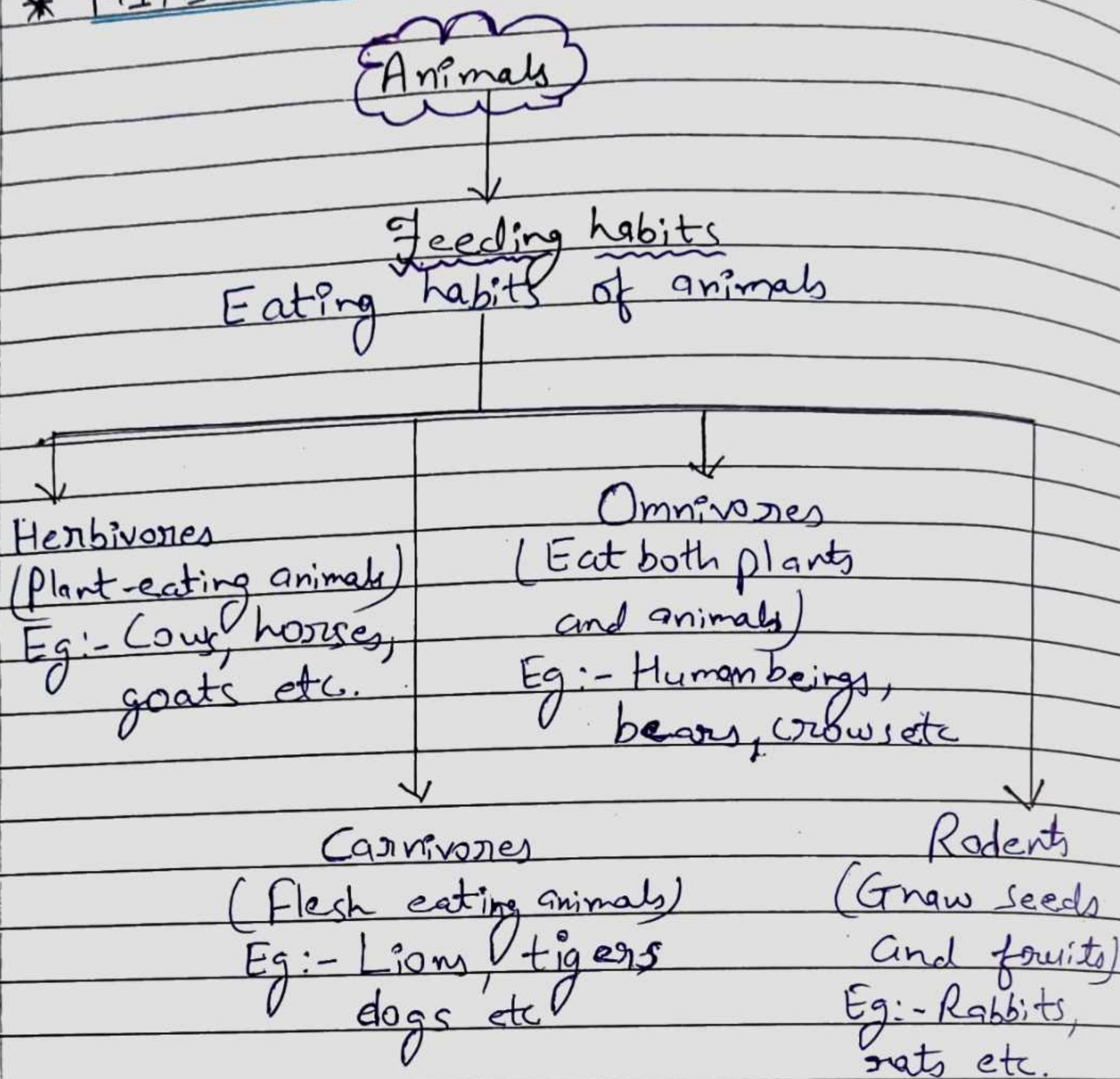
Peas

* Stages of Germination



Chapter 2 : Living Styles in Animals

* MIND MAP



Animals

Breathing Organs

i) Lungs

Breathing organ of mammals, birds and reptiles.

Eg:- Human beings, lion, crow, snake etc.

iii) Body surface

Some insects and amoeba, paramecium and hydra breathe through body surface.

Eg:- earthworm and frog when in water

ii) Spiracles

Small holes along sides of bodies of insects.

Eg:- Cockroaches, grasshoppers, houseflies etc.

iv) Gills

Breathing organs of fishes and some aquatic animals.

Eg:- Fish, tadpoles, crabs etc.

* ANSWER THE FOLLOWING QUESTIONS :-

Q1. Why do animals have different life styles?

Ans:- Animals have different lifestyles due to adaptations to their environment, feeding habits and movement patterns.

Q2. How are animals able to adapt to their surroundings?

Ans:- Animals adapt to their surroundings through changes in their bodies, behaviours and habits to survive in their environments.

Q3. Where do animals get oxygen from?

Ans:- Land animals take in oxygen from the air. Water animals take in oxygen from the water.

Q4. How do human beings breathe?

Ans:- $\Rightarrow$ Human beings have lungs to breathe.

$\Rightarrow$ They take in air through their nose and this air reaches the lungs.

$\Rightarrow$ Here, the oxygen from the air is

Absorbed into the blood.

⇒ The carbon dioxide from the blood passes into the air and this air is breathed out.

Q5. How does a fish breathe?

Ans:- ⇒ Fish have gills to breathe.

• ⇒ They take in water through their mouth.

⇒ Then, this water passes through the gills.

⇒ The gills have blood vessels to absorb oxygen dissolved in water.

Q6. What is the difference between the teeth of herbivorous and carnivorous animals?

Ans:- <u>Herbivorous Animals</u>	<u>Carnivorous Animals</u>
1) They have sharp front teeth for cutting and biting.	1) They have sharp pointed teeth to tear the meat.
2) They also have strong broad teeth at the back for chewing. Eg:- Cows, horses, goats, camels etc.	2) They also have strong grinding teeth to chew the meat and bones. Eg:- Lions, tigers, cats, Wolf, etc

Q7. How do snakes move?

Ans :- Snakes have plates on the underside of their body. These plates help them to move.

Q8. A camel is able to travel long distance in deserts without food and water. Why?

Ans :- → A camel has long legs and padded feet so that it can walk easily through the desert.

→ A camel also has a hump on its back to store fat and it also stores water in his stomach.

Q9. Why do birds migrate?

Ans :- Birds migrate from cold countries to warm lands in search of food, breeding grounds and to escape from harsh weather conditions.

Eg :- Siberian cranes, Arctic terns etc.

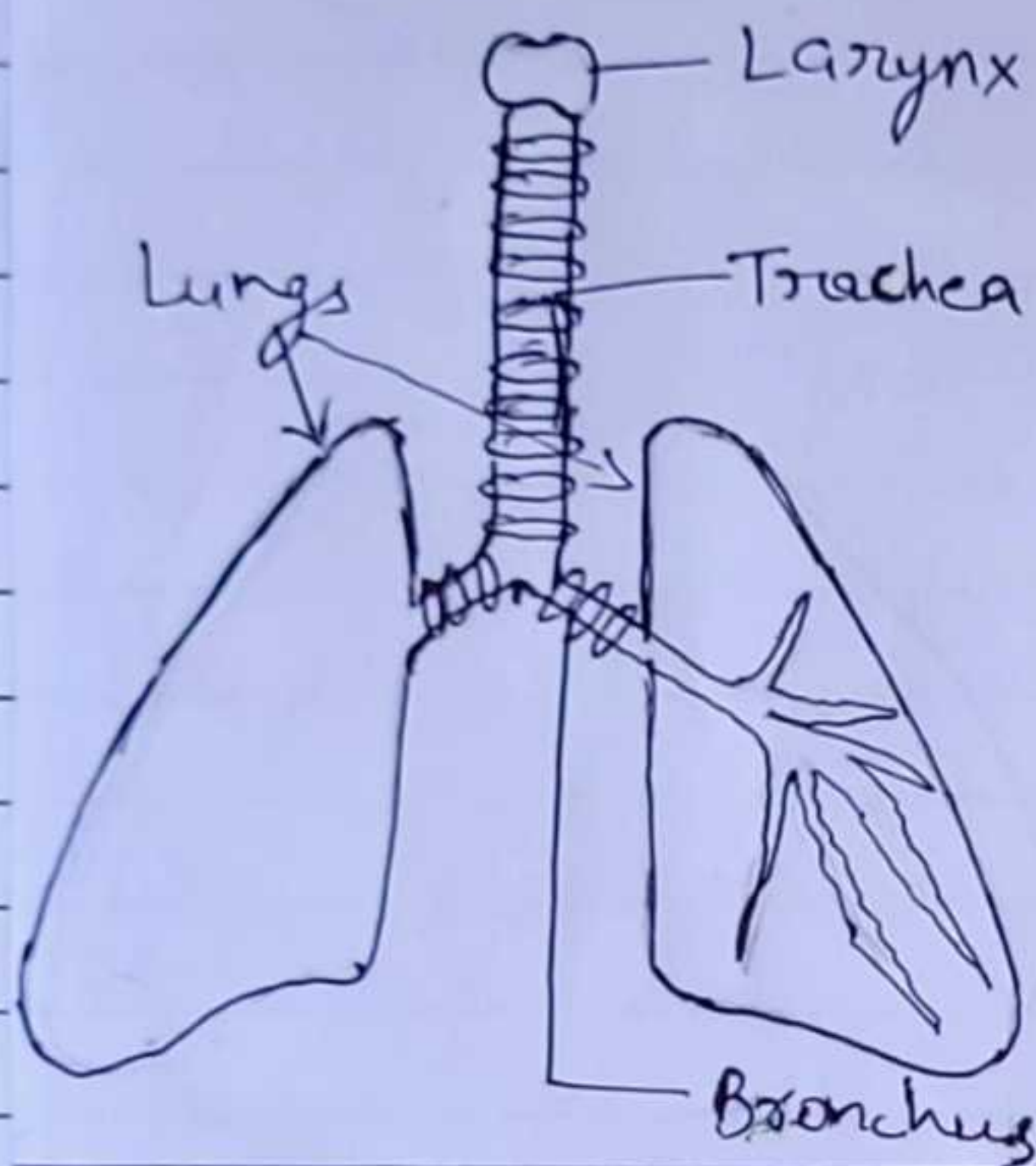
Q10. How do the feet of carnivorous animals help them in catching their food?

Ans :- Carnivorous animals have padded feet,

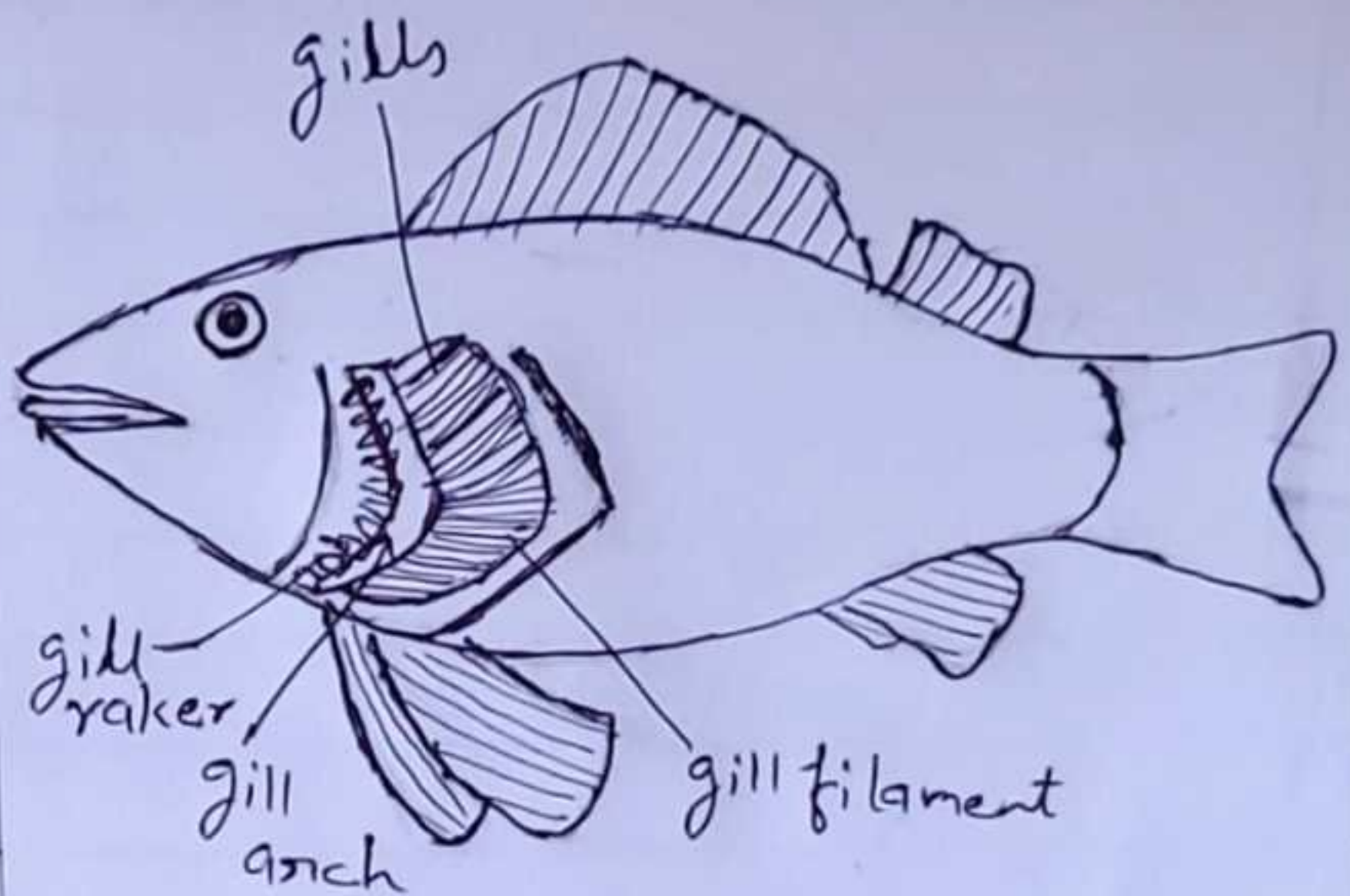
so that they can silently attack and catch their prey.

* DIAGRAMS:- Breathing Organs of animals

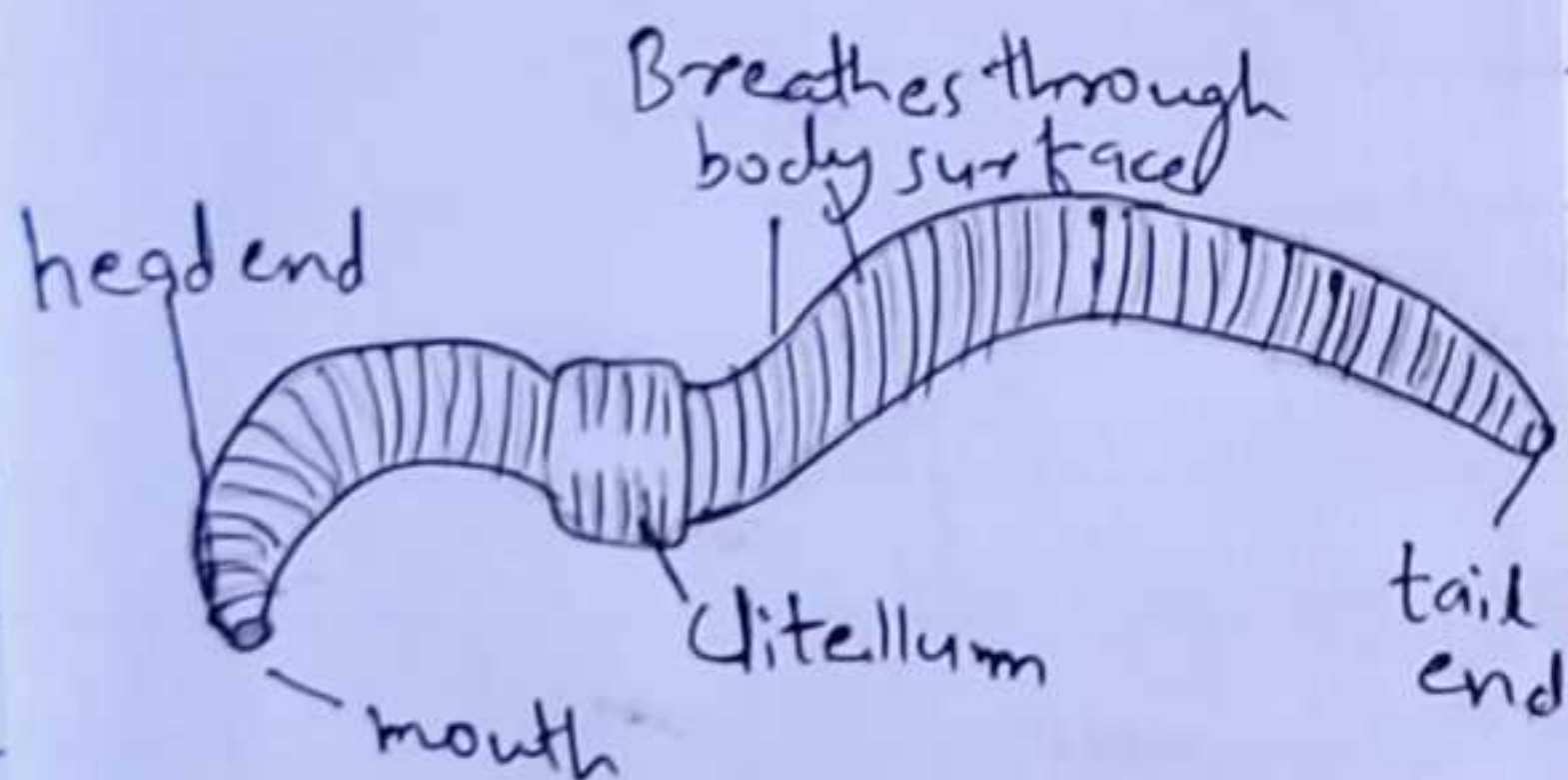
LUNGS



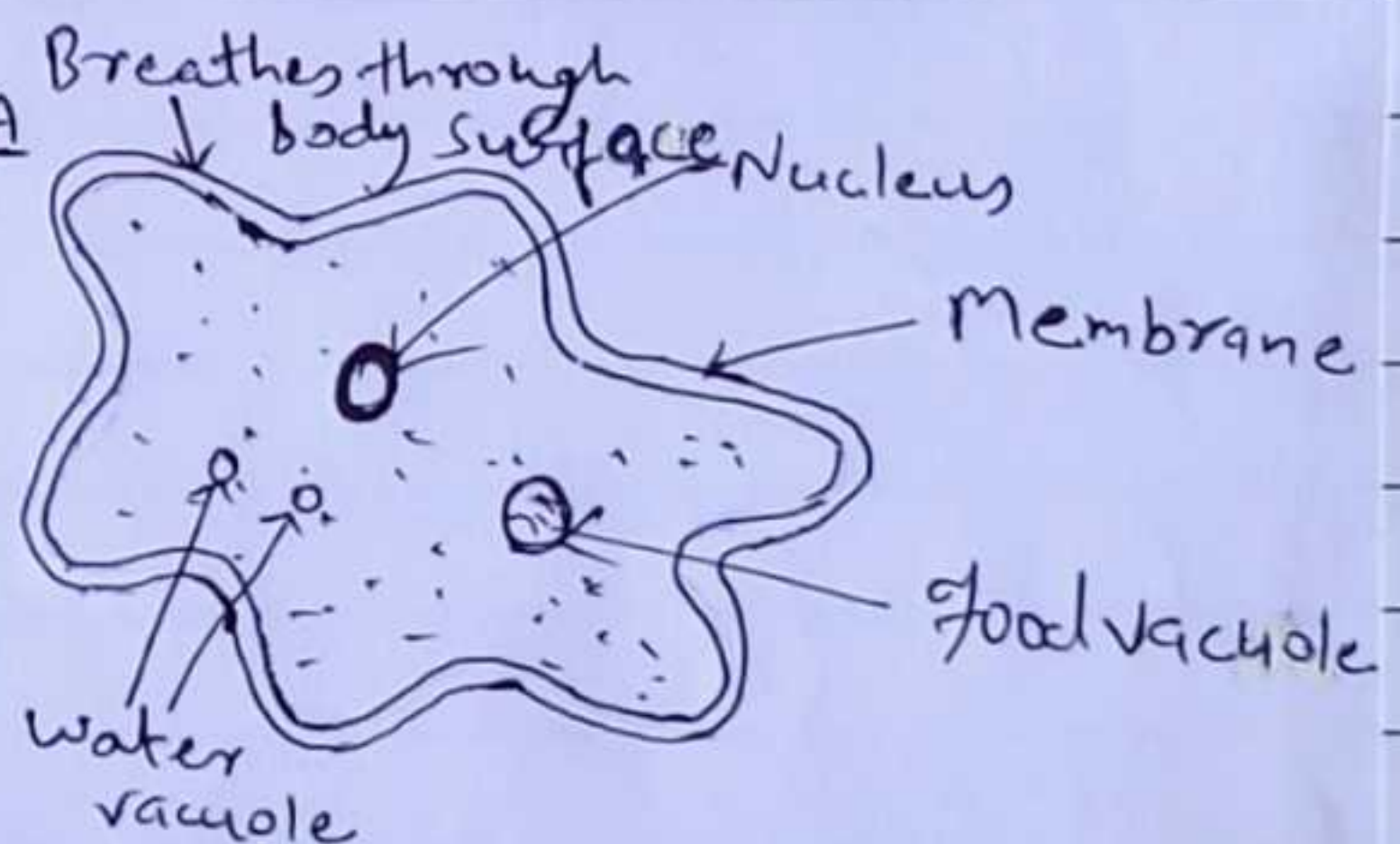
GILLS



EARTHWORM



AMOEBA



* DEFINE THE FOLLOWING :-

1) Rodents :- Animals that gnaw at or nibble their food are called rodents.

2) Spiracles :- Tiny holes along the sides of the body of insects for entry and exit of gases for respiration.

3) Migration :- Mass movement of animals from one place to another at a particular time of the year is called migration.