

Ch-6. Animals: Habitat and Adaptation

New words

1. Habitat
2. Amphibians
3. Mammals
4. Camouflage
5. Herbivorous
6. spiracles
7. Scales
8. Flippers
9. gills
10. Omnivorous

Define the following

- 1] Moulting:- Shedding of skin to acquire a new one is called moulting.
- 2] Adaptation:- Changes in the feature or behaviour of an organism that help it to survive in its habitat are called adaptations.
- 3] Camouflage:- Body covering of some animals match their surroundings. This mechanism is called camouflage. It makes the animals hard to spot and protect it from enemies.

4] Fins:- Fish, dolphins and whales

have special structures on their bodies called fins which help them to swim.

5] Flippers:- Fin-like structures in

penguins and seals are called flippers.

Answer the following question

Q:1] What is a habitat? Name five habitats found on the Earth.

Ans:- The area where a particular animal naturally lives is called its habitat.

1. Forest 2. Desert 3. Polar regions
4. Mountains 5. Oceans

Q:2] What are the characteristic features of teeth in herbivores?

Ans:- Herbivores, such as cows, buffaloes and goats, have a thick pad, called the dental pad, in the upper jaw, and sharp

incisors in the lower jaw. These helps them to hold and pull out grass and leaves.

They also have broad premolars and molars that help them to grind and chew the grass.

Rodents such as squirrels, rabbits and Rats have very sharp front teeth to gnaw nuts and seeds.

Q:3] What is camouflage? Name one animal that shows camouflage.

Ans: Body covering of some animals match their surroundings. This mechanism is called camouflage. It makes the animal hard to spot and protect it from enemies. An example is chameleon can even change their body colour to match the surroundings.

Q:4] Explain with examples the different kinds of body covering that animal have.

Ans → • Bodies of birds are covered with feathers, which help them to keep warm

• The body of a bear is covered with fur, to keep it warm.

- Crocodile has thick, plates-like scales.
- Beetles have a hard-outer covering called cuticle that protect the soft body.
- Body of fish is covered with scales. Tortoise and snail have a shell to protect their soft and delicate bodies.

Q.5] Explain with examples the different kinds of breathing organs found in animals.

Ans ⇒ Different types of animals have different organs for breathing.

⇒ Human beings and sheep breathe through their nose. From the nose, air is carried to special organs called lungs.

⇒ Fish have special structures called gills through which they breathe.

⇒ Frogs and earthworms breathe through their moist skin. Frog also breathe through lungs when on land.

⇒ Insects such as grasshoppers and

cockroaches breathe with the help of a series of tiny holes along the side of their bodies. These holes are called spiracles.

Let's apply

1. Why are desert animals usually more active at night?

Ans → Desert animals are active in the night because it is usually very hot during the day and cold during the night.

2. Why can penguins not fly despite having wings?

Ans → Penguins do not have wings. They have fin-like structures called flippers.

Let's Analyse and Evaluate

1. Compare the body coverings of a snail, a snake, a penguin, and a fish for safety from enemies.

→ A snail has a shell covering ~~its~~ its body; snake and fish have scales. These coverings protect them from respective predators.

2. Which of these animals would be most suited to live in a desert? why?

→ Snakes are ideally suited to live in the desert. The scales protect them in the sandy habitat and keep them safe in the hot days and cold nights.

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Animals: Habitat and Adaptation



You will learn about

- ◆ Habitat
- ◆ Adaptations

Different animals live in different places.

Write the name of the animal and where it is found to complete the table below from the word box.

Forest Ocean Arctic Desert



	Name of the animal	Where is it found?
1.	Camel	Desert
2.	Shark	Ocean
3.	Polar bear	Arctic
4.	Tiger	Forest



Animals have certain special features that are suited for the place they live in. Let us learn about different habitats of animals.

Answers: 1. Camel, Desert 2. Shark, Ocean 3. Polar bear, Arctic 4. Tiger, Forest





▲ Ocean

Ocean

The ocean is a large, continuous body of salt water that covers two-thirds of the Earth's surface. It is the world's largest habitat. It is divided into the Pacific Ocean, the Atlantic Ocean, the Indian Ocean, the Arctic Ocean, and the Southern Ocean. A large variety of fish are found in the oceans. Whales, turtles, octopus, and jellyfish are also found here.

Freshwater

Rivers, lakes, and ponds are examples of freshwater habitats. Some animals can live only in water (e.g. fish and shrimps). Some animals can live both on land and in water. Examples are amphibians such as frogs and salamanders, and reptiles such as alligators.



▲ Freshwater



Let's Remember

1. Name the habitat shown here. Desert
2. Which of these is not true about this place?
 - (a) It is dry.
 - (b) It is sandy.
 - (c) Water is scarce.
 - (d) A variety of plants are found here.
3. Name any three animals commonly found here.
Camel ; Rattle ; ground squirrel
Snake



Case Study: Olive Ridley Turtle

Coastal Orissa is considered one of the most important regions for nesting and breeding of Olive Ridley sea turtles in India. The Gahirmatha is a marine wildlife sanctuary where sea turtles that are otherwise reducing in large numbers are being conserved. Special nesting grounds are preserved so that the Olive Ridley turtles can breed and multiply.

Every year, around the beginning of October, Olive Ridley sea turtles come along the coast of Orissa in large numbers to reproduce.

In recent years, however there has been a huge decline in the numbers of these sea turtles because of many reasons. Sea fishing, increased vehicular traffic on the sea, and release of pollutants in the sea water have all added to the destruction of breeding grounds. The pollution has also harmed the food chain as well as the health of these turtles.



Shell Animals such as snails, tortoise, and turtles are protected by a shell. When these animals sense danger, they withdraw their head and feet into the shell.

Wool or fur Mammals such as the sheep and bear have special body coverings. A sheep's body is covered with wool and a bear's body is covered with fur. These coverings protect them from rain and cold.

Feathers Birds have feathers as their body covering. Wings are covered with feathers that help them to fly. They also protect the birds from rain and cold.

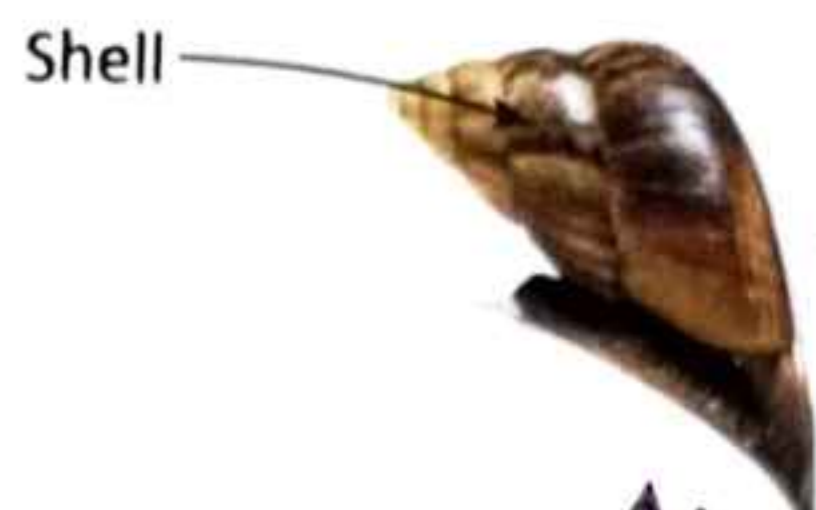
Camouflage

Body coverings of some animals match their surroundings. This mechanism is called **camouflage**. It makes the animal hard to spot and protects it from enemies.

Some animals (e.g. chameleon) can even change their body colour to match the surroundings!

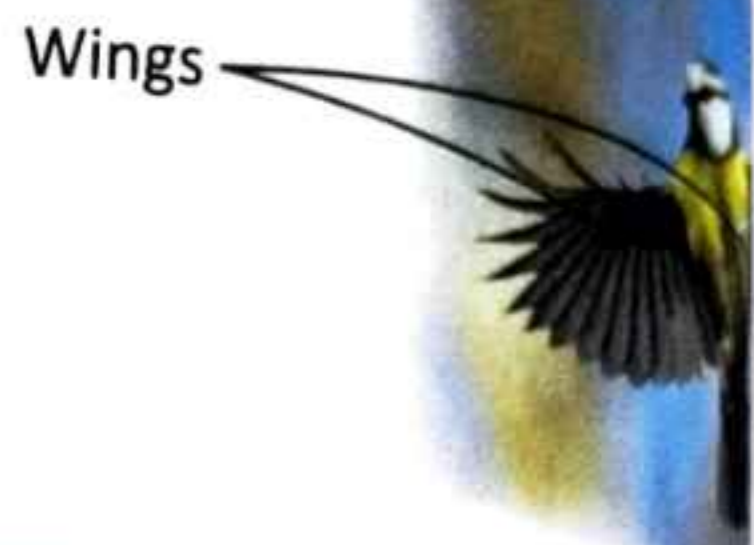


▲ Chameleon



Shell

▲ Snail



Wings

▲ Bird

Fact File

Shark's teeth are actually modified scales!



Fact File

The porcupine's body is covered with sharp spines. These spines can give painful wounds to its enemies.



Let's Remember

Circle the odd one out in each of the following. Give one reason for your choice based on the body coverings.

1. Fish, Crocodile, Insect, Snake

Reason: because insects don't always have scales

2. Feathers, Cuticle, Fur, Wool

Reason: feather, fur and wool keep the body warm, but cuticle!

3. Snake, Crocodile, Lizard, Turtle

Reason: Turtle have shell as body covering



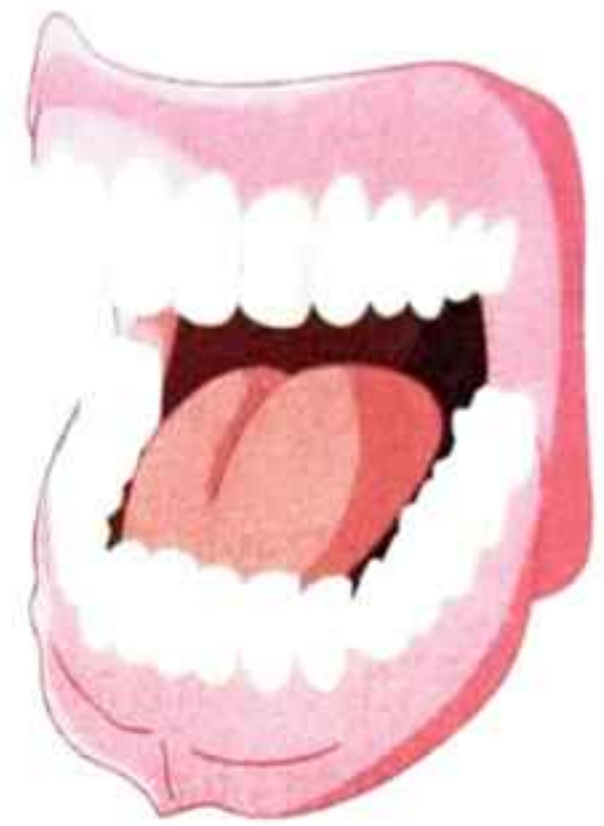
Omnivores Omnivores eat both plants as well as the flesh of other animals. Human beings and bears are omnivores. They, therefore, have well-developed canines for tearing flesh, as well as broad and flat molars for crushing vegetable matter.



▲ Sharp incisors of a squirrel



▲ Sharp canines and back jaws of a lion



▲ Well-developed jaws of a human being

Key Words

Habitat

The area where a particular animal naturally lives is called its habitat.

Adaptation

Changes in the features or behaviour of an organism that help it to survive in its habitat is called adaptation.

Summary

- ❖ There are different types of habitats—forests, deserts, polar regions, mountains, oceans, and freshwater.
- ❖ Scales, shells, feathers, and fur are some of the body coverings in animals.
- ❖ Nose, skin, and spiracles are some of the breathing organs in animals.
- ❖ Legs, wings, scales, fins, and flippers are some of the organs for movement in animals.



Exercises



LET'S UNDERSTAND



A. Objective type questions

I. Fill in the blanks with the correct words.

1. An area where a particular animal naturally lives is called its habitat (territory/habitat).

2. It is usually very hot during the day and very cold at night in a desert (desert forest).
3. Oceans (Oceans/Forests) are world's largest habitats.
4. A snail has a Shell (shell/cuticle) to protect its soft body.
5. Frogs breathe through their lungs (lungs/moist skin) on land.

II. Write T for the true and F for the false statement.

1. A forest is a large area that is rich in plants and animals. T
2. Water is in abundance in a desert. F
3. The ocean is a large, continuous body of fresh water and covers two-thirds of the Earth's surface. F
4. All animals show the same kind of adaptations, which help them to survive in different climates. F
5. Most reptiles have scales that prevent loss of water from their bodies. T

III. Choose the correct option.

1. Where do most insects live in the forest?

a. On trees	b. In the air
<input checked="" type="checkbox"/> c. On the forest floor	d. All of these
2. Which of these is not found in a desert?

a. Camel	b. Rattlesnake	c. Ground squirrel	<input checked="" type="checkbox"/> d. Yak
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3. Which of these live only in water?

<input checked="" type="checkbox"/> a. Shrimps	b. Frogs	c. Salamanders	d. Crocodiles
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4. Which of these shed their skin periodically and get a new one?

a. Crocodiles and lizards	<input checked="" type="checkbox"/> b. Snakes
c. Snails and tortoises	d. Alligators
5. Which of these helps insects to breathe?

a. Lungs	<input checked="" type="checkbox"/> b. Spiracles	c. Gills	d. Moist skin
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6. Which of these animals has spines on its body?

<input checked="" type="checkbox"/> a. Porcupine	b. Snail	c. Chameleon	d. Fish
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7. Which of these have hollow bones?

<input checked="" type="checkbox"/> a. Birds	b. Snakes	c. Fish	d. Insects
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8. What is the thick pad in the upper and lower jaw of grass-eating animals known as?

<input checked="" type="checkbox"/> a. Dental pad	<input checked="" type="checkbox"/> b. Jaw pad	c. Teeth pad	d. Food pad
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IV. Match the columns.

Column A

1. Bird
2. Bear
3. Snail
4. Crocodile
5. Beetle

Column B

- a. Fur
- b. Shell
- c. Feathers
- d. Cuticle
- e. Scales

1 c
2 a
3 b
4 e
5 d

B. Very short answer questions

I. Give two examples of the following.

1. Animals that live in caves
2. Animals that have a shell on their body
3. Animals that have scales on their body
4. Animals that have fins
5. Animals that breathe through holes on their body

Lion Tiger
Tortoise Snail
Crocodile Snakes
Fish Dolphin
Grasshoppers Cockroaches

II. Give one word for the following.

1. The mechanism of blending with the surroundings
2. Special structures through which a fish breathes
3. Special structures through which insects breathe
4. Back limbs of an animal
5. Fin-like structures in seals and penguins

Camouflage
Gills
Spiracles
Hindlimbs
Flippers

C. Answer the following.

1. What is a habitat? Name five habitats found on the Earth.
2. What are the characteristic features of teeth in herbivores?
3. What is camouflage? Name one animal that shows camouflage.
4. Explain with examples the different kinds of body coverings that animals have.
5. Define the following:
a. Moulting b. Adaptation c. Camouflage d. Fins e. Flippers
6. Explain with examples the different kinds of breathing organs found in animals.



Recall and complete the concept map given on the following page.



Types of habitats

Forest

Examples:

1. Tiger
2. Bear

Desert

Examples:

1. Camel
2. Rattle snake

Polar region

Examples:

1. Polar bear
2. Seal

Ocean

Examples:

1. Whale
2. Turtle

Fresh Water

Examples:

1. Frog
2. Salamander

Adaptations

Types of body coverings

- Fur
- Scales
- Feather

Types of breathing organs

- Lungs
- Gills
- spiracles

Types of organs for movement

- Limbs
- Wings
- Fins

Types of eating habits

- Herbivores
- Carnivores
- Omnivores

LET'S OBSERVE



1. Point out four mistakes in this picture

LO 9 LO 10

- a. The habitat of tiger is forest
- b. Birds cannot live underwater
- c. Cactus cannot grow underwater
- d. Frog do not live in sea

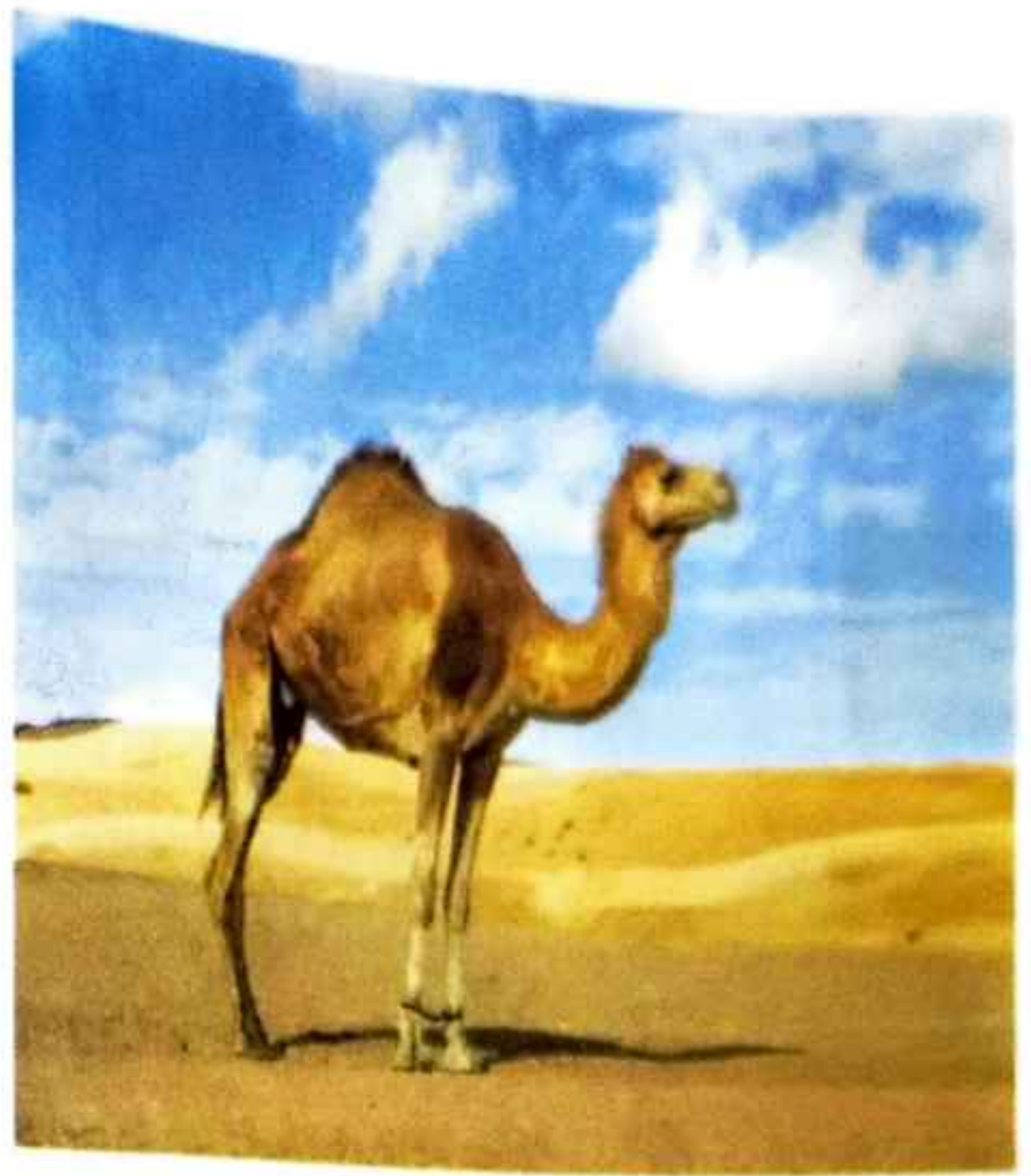
How is a frog able to breathe on land as well as in water?

Frog ^{breathe} using lungs on land and through their skin in water



2. Pankaj's camel has lost its way and reached a wrong habitat. Tick the correct habitat for his camel. **LO 9**

- Forest
- Desert
- Ocean
- Mountain
- River



LET'S CONNECT



SOCIAL STUDIES



On a map of the world, mark the five oceans in blue, any five forest areas in green, and any five deserts in yellow. Make a legend to show what each colour stands for. Also write names of the marked places.

LET'S APPLY

- Why are desert animals usually more active at night? **LO 3**
- Why can penguins not fly despite having wings?



LET'S ANALYSE AND EVALUATE

- Compare the body coverings of a snail, a snake, a penguin, and a fish for safety from enemies. **LO 11**
- Which of these animals would be most suited to live in a desert? Why? **LO 9**



LET'S CREATE

- In groups of five, make a PowerPoint presentation on any one habitat. Make sure you have slides on the characteristic features of the habitat, animals found there, and the kind of adaptations animals have to survive in that habitat. **LO 9** **LO 10**
- Make a chart showing the difference in the teeth of any two types of animals, depending on their diet. **LO 9** **LO 10**



Project based on the theme: "Saving the..."