

# SCIENCE ANIMALS LIFE AND SURVIVAL





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# **LESSON-3** ANIMALS : LIFE AND SURVIVAL

# BEFORE WE PROCEED

- What are parasites?
- ❖ What is camouflage?



## SAY ALOUD

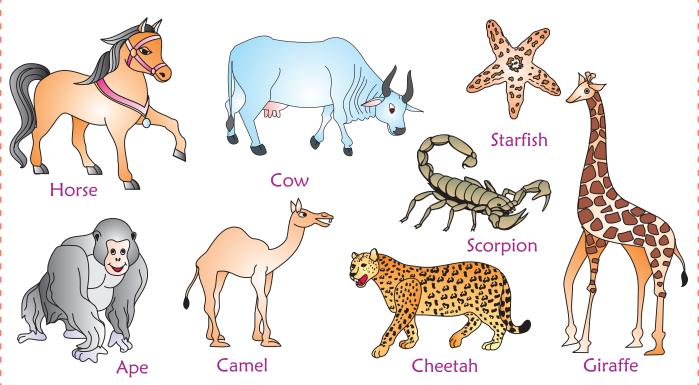
amphibians, arboreal, reservoir, conserve, flamingo, camouflage, extinct, endangered

### Let us find out more about animals

Animals are found all over the world - in plains and plateaus.

They even live in the deepest oceans and on the highest mountains. They are found in the hottest desert as well as in very cold places.

The surroundings in which an animal or plant lives, is called its habitat. Animals living in different surroundings adapt themselves to survive in their surroundings.



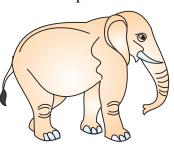
According to their habitats and mode of living, animals are divided into five groups. These groups are terrestrial, aquatic, amphibians, aerial and arboreal animals.



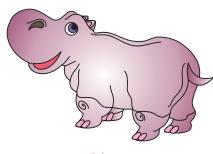


#### 1. Terrestrial animals

Animals that live on land are called terrestrial animals. Elephants, tigers, lions, rhinoceros etc. are terrestrial animals. Their bodies are suited to live on land. They have strong legs which help them to walk long distances. They can also run to escape from their enemies. Most of them breathe with the help of their lungs. Their sense organs and brain are well developed in order to sense the changes in their surroundings.







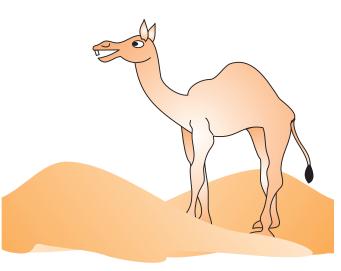
Elephant Tiger Rhinoceros

Let us study more about the terrestrial animals in a particular surrounding.

#### **Desert**

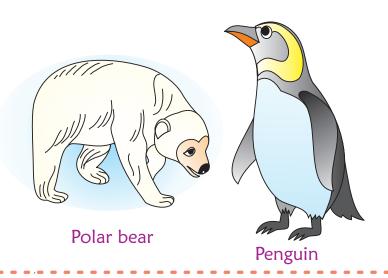
In desert, there is very little water. It is very hot during the day but very cold at night. Animals like camels, snakes and desert rats adapt themselves to these conditions.

The camel is known as the 'Ship of the Desert'. It has thick skin and can live 10-12 days without water and food as it can store water in its stomach, and its hump is a reservoir of fat. When the camel does not get water or food, it can still survive because of the fat in its hump. The broad pads on the bottom of its feet keep it from sinking into the sand of desert.



Camel





#### **Polar regions**

In Polar regions, weather is extremely cold. Polar bears have thick fur on their skin. Some of them are white in colour and merge with their surroundings to escape from their enemies. The penguins here live in groups to keep themselves warm.

Animals escape extreme cold weather either by migrating or by hibernating.

#### i) Migration

Migration is the movement of an animal or group of animals from one region to another and then back again to escape the adverse climate.

## Do you know?

Siberian cranes migrate to India every year.

Animals migrate for different reasons.

- ♦ A better climate
- ♦ Better food
- A safe place to live and lay eggs
- ♦ A safe place to raise babies









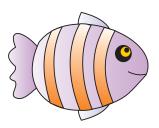
#### ii) Hibernation

Hibernation is a deep winter sleep of animals when the weather conditions are not favourable. This helps them to conserve their energy till food is available again.

Hibernation

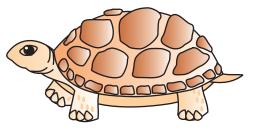
#### 2. Aquatic animals

Animals that live in or near water are known as aquatic animals. Fish, snails, turtles, crabs etc are all aquatic animals. They have special organs to breathe.



Fish





Turtle

Fish breathe air dissolved in water through special organs called gills. They have fins to help them swim and balance in water. Dolphins and whales do not have gills. They come up to the water surface to breathe through lungs.

Crab



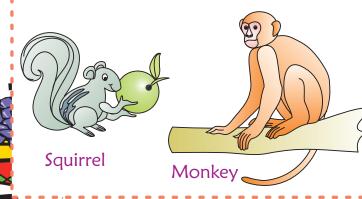
Birds like ducks have webbed feet which help them to swim. Birds like cranes, egrets and flamingoes have long legs to help them wade in water. Their long beaks help them catch fish under the water.



#### 3. Amphibians

Animals such as frogs, toads, newts and salamanders can live on both land and in water. We call them amphibians. They have lungs to breathe when on land and when they are in water, they breathe through their moist skin. Their limbs are also adapted for swimming.









#### 4. Arboreal animals

Animals that spend most of the time on trees are called arboreal animals. Monkeys, squirrels, chameleons and some insects are arboreal animals.

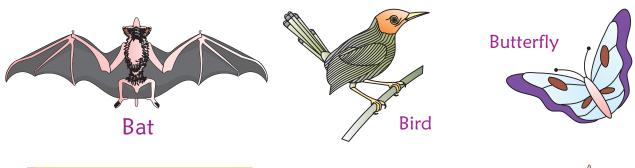
A monkey has strong legs and arms. It has a tail also. Both these adaptations help it to climb trees and swing from one branch to another.

Some arboreal animals have plates on their bodies. These plates prevent them from slipping.

#### 5. Aerial animals

Birds, bats and some insects spend most of their life in the air. They are called aerial animals.

Birds have wings to fly. Their bones are hollow, which make them light and their body shape also helps them to fly easily in air. Insects have wings to fly. Butterflies and moths have beautiful wings.



## Do you know?

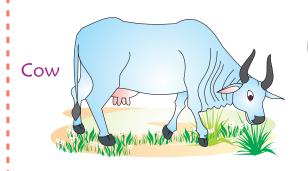
Bat is a flying mammal (which gives birth to young ones).

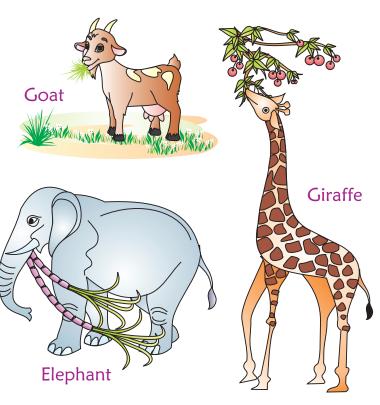


Different animals eat different kinds of food. They adapt themselves and have their body structure according to the food they eat.

#### 1. Herbivores

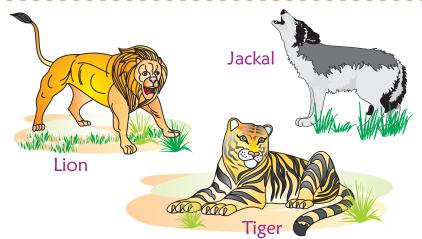
Animals that eat only plants are called herbivores. They have sharp, flat front teeth for eating the leaves and grass. Their teeth in the inner side of the mouth help in chewing the grass or leaves. Cows, sheep, buffaloes, deer, goats, elephants and giraffes are such animals.











#### 2. Carnivores

The animals that eat flesh of other animals are called carnivores. Tiger, lion, jackal etc are carnivores. They have long, sharp tearing teeth and claws which help them to tear the flesh. They have strong legs which help them to run fast and catch their prey.



Birds of prey like hawks and eagles have sharp beak to tear the flesh and they also have strong claws called talons to catch and tear their prey.







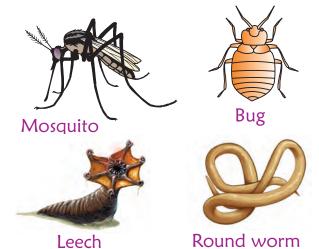
#### 3. Omnivores

Animals that eat both plants and flesh of other animals are called omnivores. Crow and bear are omnivores. Human beings too are omnivores.

#### 4. Parasites

Some animals depend on other living beings for their food. They are called parasites. The animals that provide food to the parasites are called hosts. Mosquitoes, hook worms, bugs, round worms, tape worms and leeches etc are parasites.

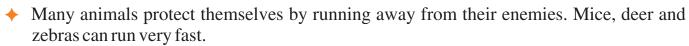
They do not have teeth. Instead, they have suckers or sucking tubes in their mouth to suck the blood from their host.



#### Adaptation for protection

Every animal has to protect itself from its enemies and surroundings. It is very important for an animal to protect itself and continue to live and reproduce. There are several ways by which animals can save themselves:



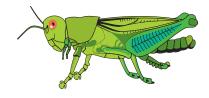


- ♦ Some animals have developed the way to merge with their surroundings. Then it becomes difficult to see the animals. This is known as camouflage.
- ♦ Stick insect and leaf insect have colours which merge with surroundings within a very short time.
- → Grasshoppers are green in colour. So, they are not easily visible when they settle on leaves of the plants.
- ♦ The white fur of a polar bear matches with the surrounding snow, making it difficult to be seen.

## Do you know?

Monarch butterfly flies all the way from Canada to Mexico.







Chameleon

Grasshopper

Polar bear

- ♦ Some animals have spines or shells on their bodies to protect themselves.
- ♦ Animals such as bees and wasps have stings. They use their stings to inject poison into bodies of their enemies.

## Do you know?

European eels swim all the way from the Sargasso Sea to Atlantic Ocean to lay eggs.



#### **Extinct animals**

Many animals and plants of ancient times are no more found today.

Animals that once existed and do not exist any more are called extinct animals. This is because they failed to adapt themselves according to the changing conditions of climate, food and surroundings. So, they all died and were lost forever. Dinosaurs and archae-opteryx have become extinct. Animals on the verge of extinction are called endangered species. They may become extinct if not protected properly.



Dinosaur







## Key Ideas

- The animals adjust themselves according to the prevailing conditions of environment. This is called adaptation.
- On the basis of habitat, animals can be classified under the categories Terrestrial, Aquatic, Amphibians, Arboreal and Aerial animals.
- ★ On the basis of their feeding habits, they can also be sub-divided as herbivores, carnivores and omnivores.
- Some animals run very fast, while others camouflage to protect themselves from their enemies and predators.

# LET'S WRITE TOGETHER





#### A. Answer these questions:

- 1. What is a habitat?
- What is adaptation?
- 3. How are the fish adapted to live in water?
- 4. What are arboreal animals? Name any three.
- 5. How are birds adapted for flying?
- 6. Why did dinosaurs vanish from the earth?

Complete the sentences:		
1.	A long winter sleep is known as	
2.	Dolphins and whales do not have	
3.	The camel is known as the of the desert.	
4.	Animals having thick fur which is white in colour are seen in region	ons
5.	help ducks to swim in water.	
Write 'T' for True and 'F' for False:		
1.	Monkey is an arboreal animal.	
2.	Carnivores have long, sharp tearing teeth.	
3.	Some animals can breathe through their skin.	_
4.	Parasites do not have teeth.	_
5.	Whales breathe through gills.	_





- Squirrel [ ] (i) Aquatic animal
   Bat [ ] (ii) Arboreal animal
- 3. Salamander [ ] (iii) Aerial animal
- 4. Turtle [ ] (iv) Terrestrial animal5. Lion [ ] (v) Amphibian

## LET US DO

Make a list of birds, insects and animals in your notebook.



- 1. Collect the pictures of endangered animals (e.g. gharial, great Indian bustard, turtle etc.) and paste them in your scrapbook.
- 2. Collect pictures each of 5 groups of animals and paste in your scrap book.

# **GLOSSARY**

Surroundings - everything that is around or near

Organ - a part of the body that has a particular purpose

Migrate - to move from one part of the world to another according to the season

Limb - an arm or a leg, a similar part of an animal, such as a wing

Hollow - having a hole or empty space inside

Prey - an animal, a bird etc that is hunted, killed and eaten by another

Parasite - a small animal or plant that lives on or inside another animal or plant

and gets its food from it

Spine - any of the sharp pointed parts like needles on some plants and animals







