


Chapter – 7 Adaptation in Animals
Class – 4
E.V.S




INTRODUCTION

Like plants, animals are also found all over the world. They are found in the deepest ocean as well as on the highest mountains. They are also found in deserts and the cold places.



The surroundings or the environment in which an animal or a plant lives is called its habitat. Plants and animals living in different environment adapt themselves to survive in their surroundings.



The earth has several habitats. There are cold mountains, open grasslands, rainforests, hot and dry deserts, rivers and salty oceans. The living conditions in these habitats are different from each other. Animals adapt themselves to survive in their habitat.

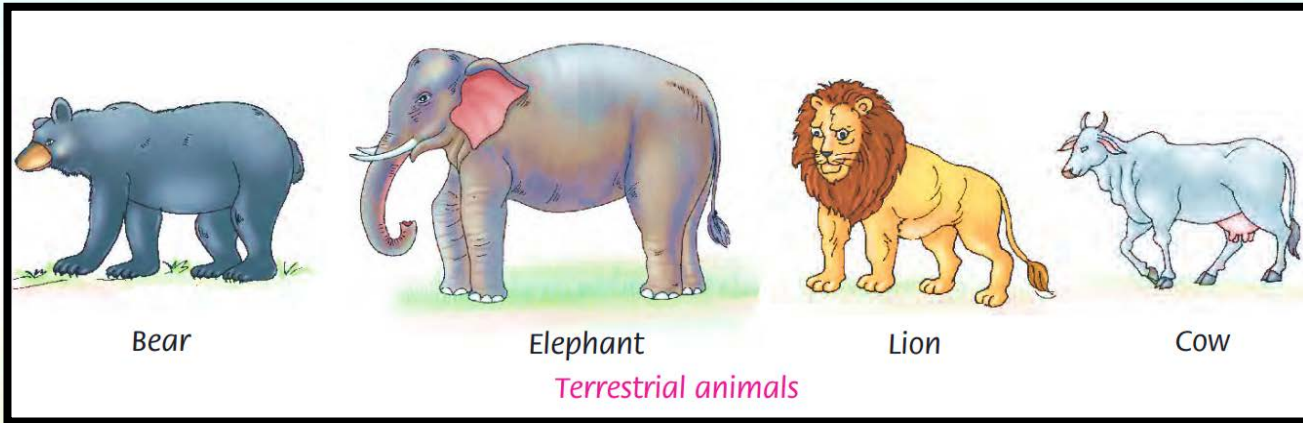


ADAPTATION FOR HABITAT

Animals can be divided into five groups depending on their habitat.

Terrestrial Animals

The animals that live on land, are known as the **terrestrial** animals. Bear, elephant, lion, cow, etc. are the examples of the terrestrial animals.



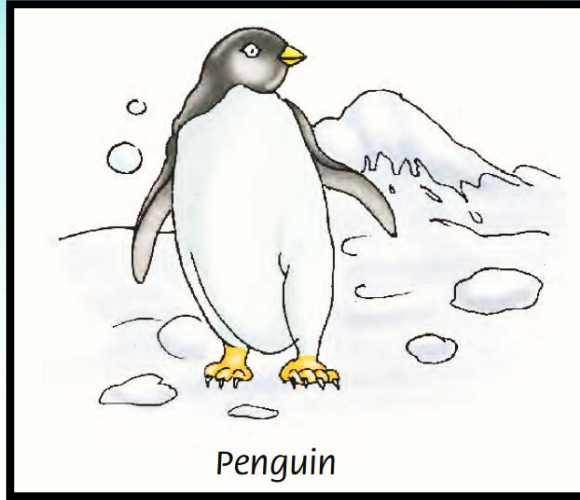
Main Features

- They breathe through their lungs.
- Some of them have sharp teeth and claws to catch their prey.
- Most of them have legs which help them to run fast, to catch their prey and to protect themselves.
- They have well developed sense organs that help them to search food and escape from the enemies.



INTERESTING FACTS

- ❖ All mammals except humans and monkeys have colour blindness.



- **In polar regions, the animals have to face harsh winters. Polar bear has thick fur to protect it from cold. Penguins huddle up together to keep them warm.**

Deserts have cold nights and hot days. Animals adapt to these

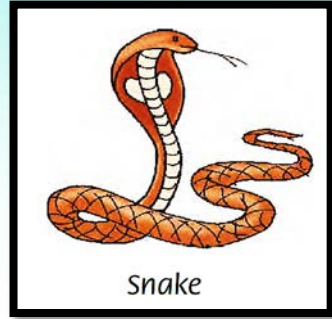
conditions and live with very little water.

Camel has thick skin which protects it from water loss and also from cold. Fat is stored in its hump. When devoid of food and water it lives on this fat and thus can survive without food and water for many days.



Camel

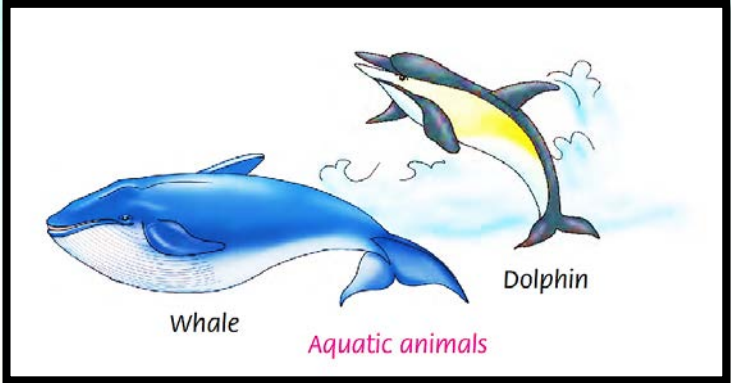
- **Animals like snakes and lizards have scales on their body. They cannot bear cold. During summer they eat as much as they can and get fat. During winter they sleep in under-ground holes and survive on stored fat. This winter sleep is called **hibernation.****




Lizard

Aquatic Animals

The animals that live in the water are called the **aquatic** animals. Different kinds of animals like fish, turtles, crabs, whales and seals live in the water. Fish breathe the air dissolved in

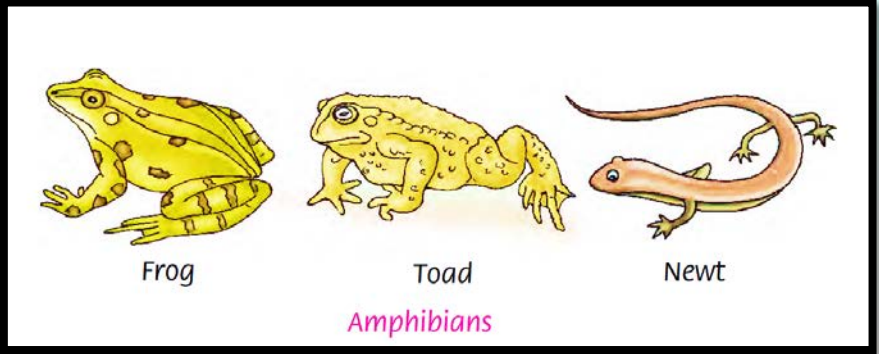


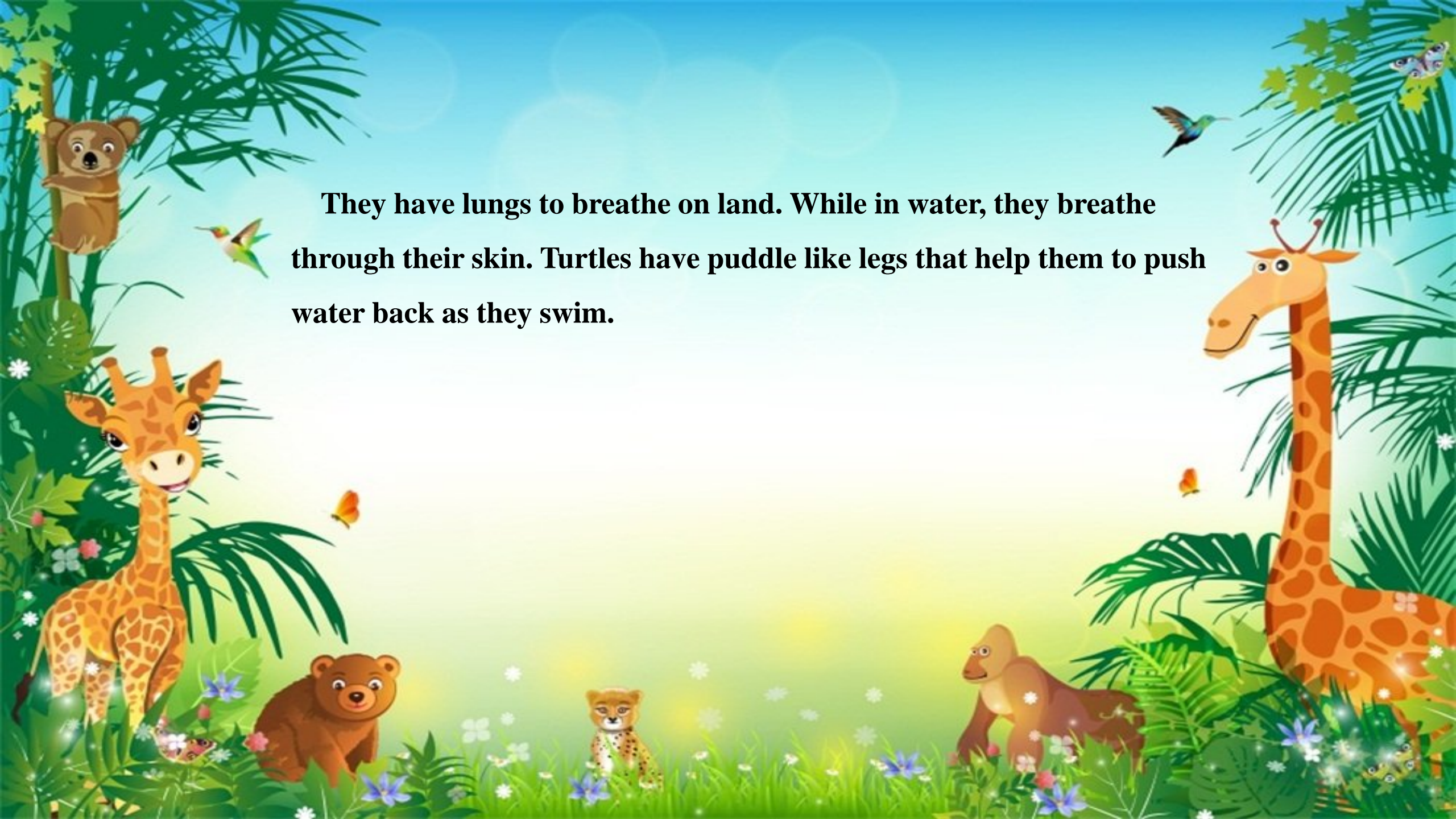


the water through special organs called **gills** . They have fins which help them to swim and balance in the water. Dolphins and whales do not have gills. They have to come up to the water surface, to breathe.

Amphibians

Animals like frog, toad, newt and salamander live both on land and in water. These animals are called the **amphibians**.

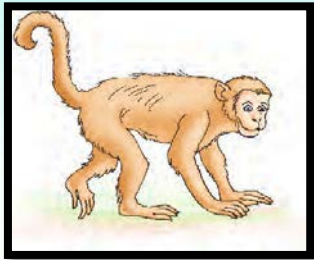




They have lungs to breathe on land. While in water, they breathe through their skin. Turtles have paddle like legs that help them to push water back as they swim.

Arboreal Animals

Some animals like monkeys and squirrels spend most of their time



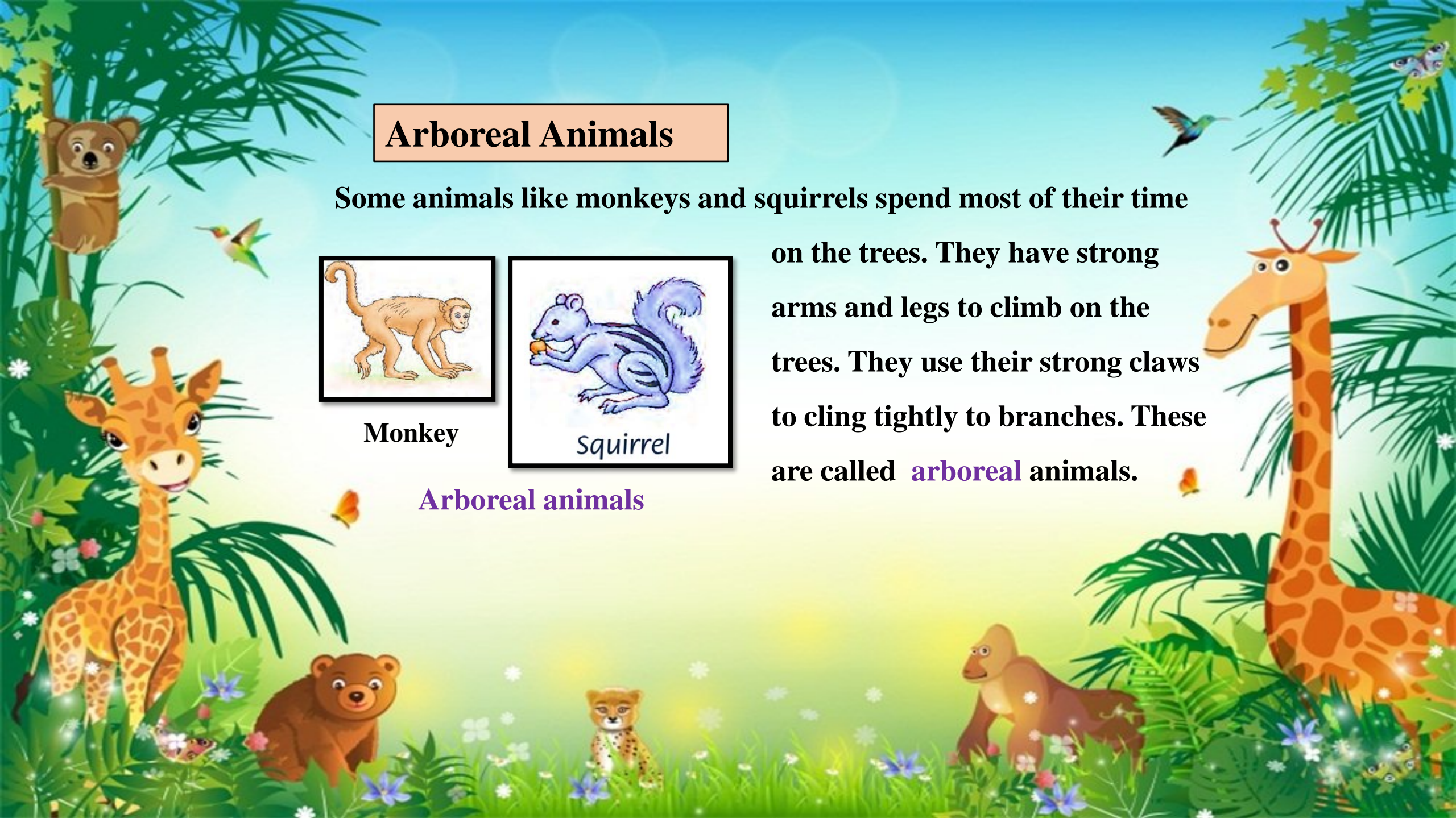
Monkey



Squirrel

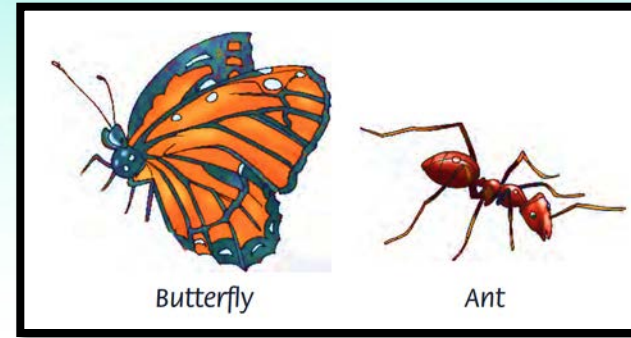
on the trees. They have strong arms and legs to climb on the trees. They use their strong claws to cling tightly to branches. These are called **arboreal** animals.

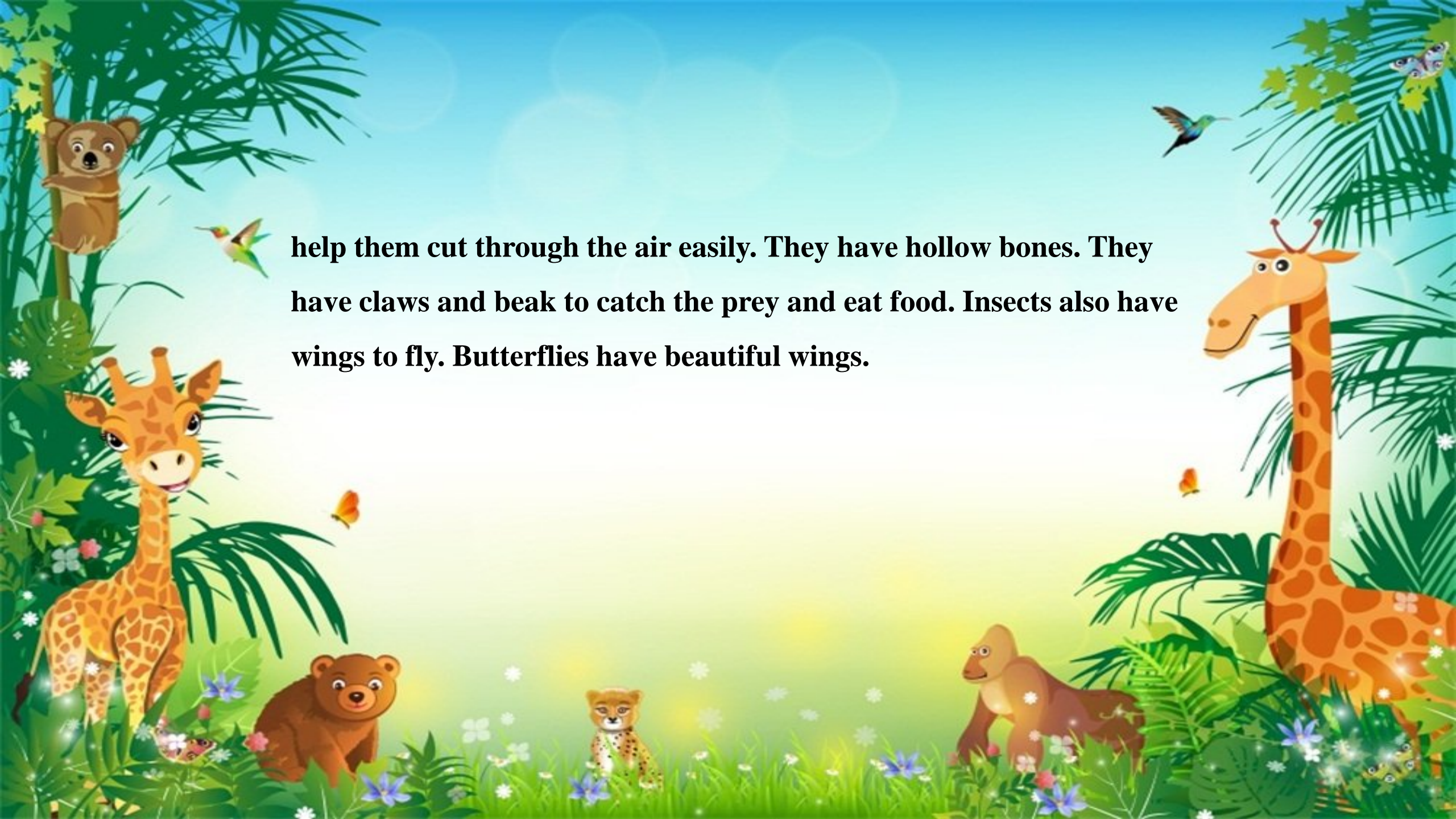
Arboreal animals



Aerial Animals

Animals like birds and insects spend most of their time in the air. Such animals are known as the **aerial** animals. Birds have wings to fly. Their bodies are boat shaped and covered with feathers, which





help them cut through the air easily. They have hollow bones. They have claws and beak to catch the prey and eat food. Insects also have wings to fly. Butterflies have beautiful wings.

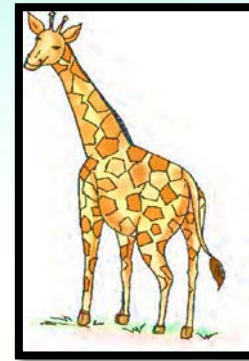


ADAPTATION FOR FOOD

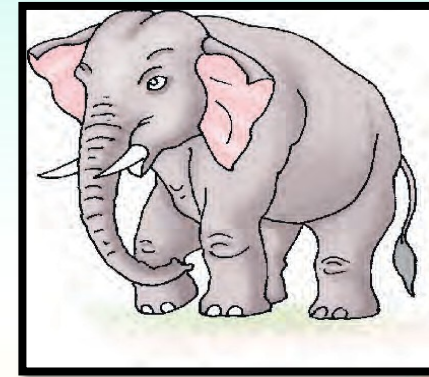
Different animals eat different types of food. According to their food habits, animals can be classified as:

Herbivores

The plant-eating animals are called **herbivores**. They have sharp front teeth to cut grasses and flat grinding back teeth help them to chew the grass.




Giraffe



Elephant

Herbivores



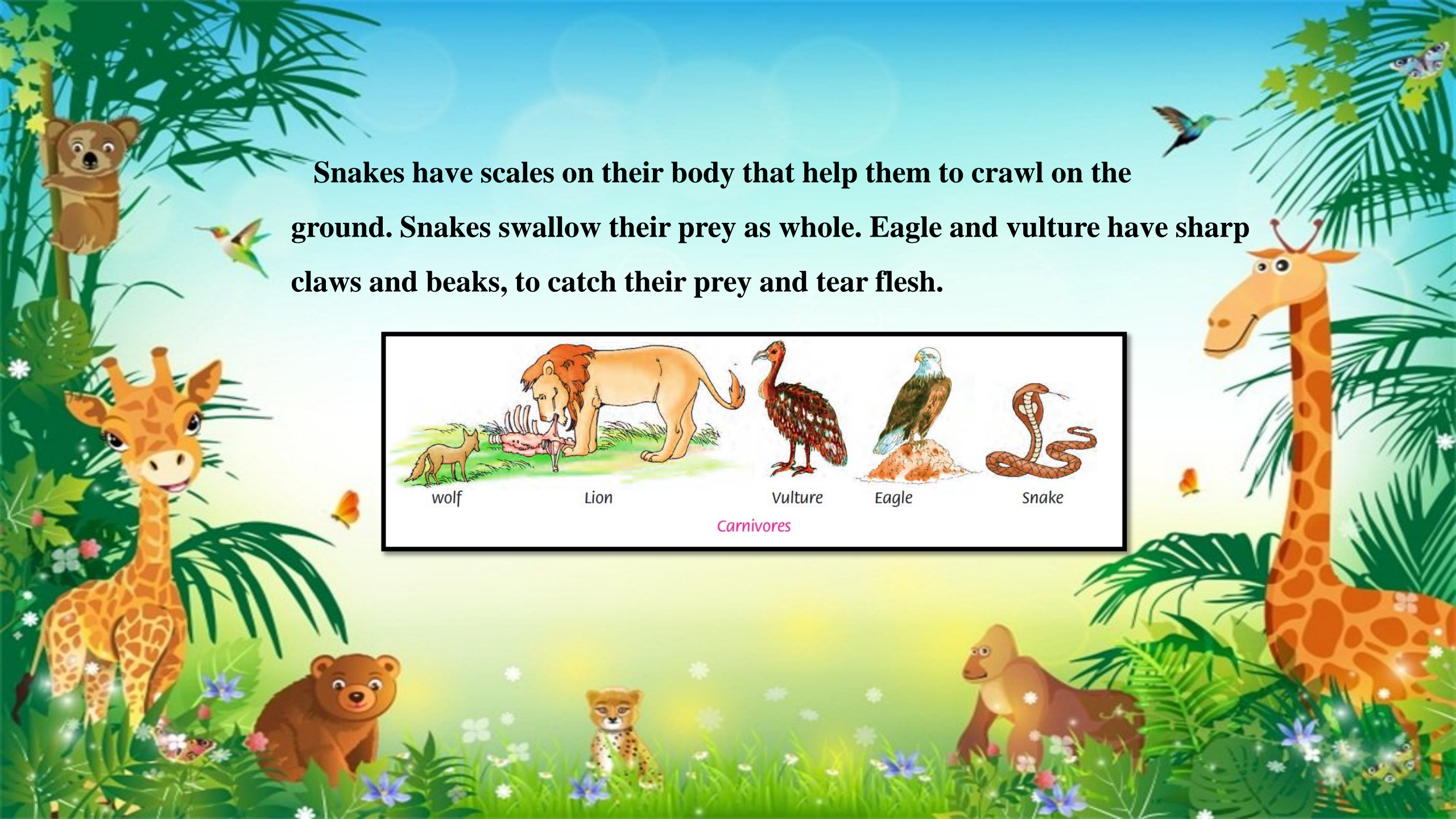
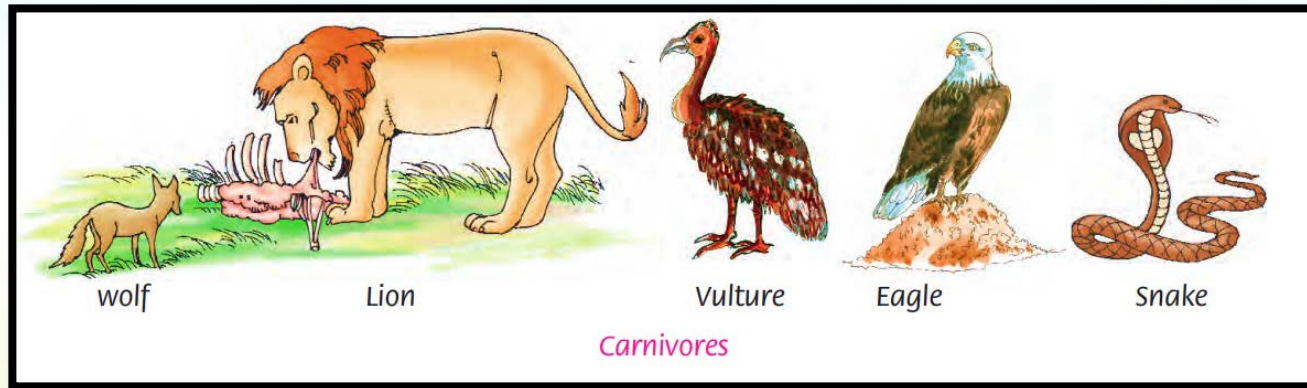
**The trunk of the elephant
and long neck of the giraffe
help them to break and eat
leaves. They have strong and
long legs to travel long distances, for food.**



Carnivores

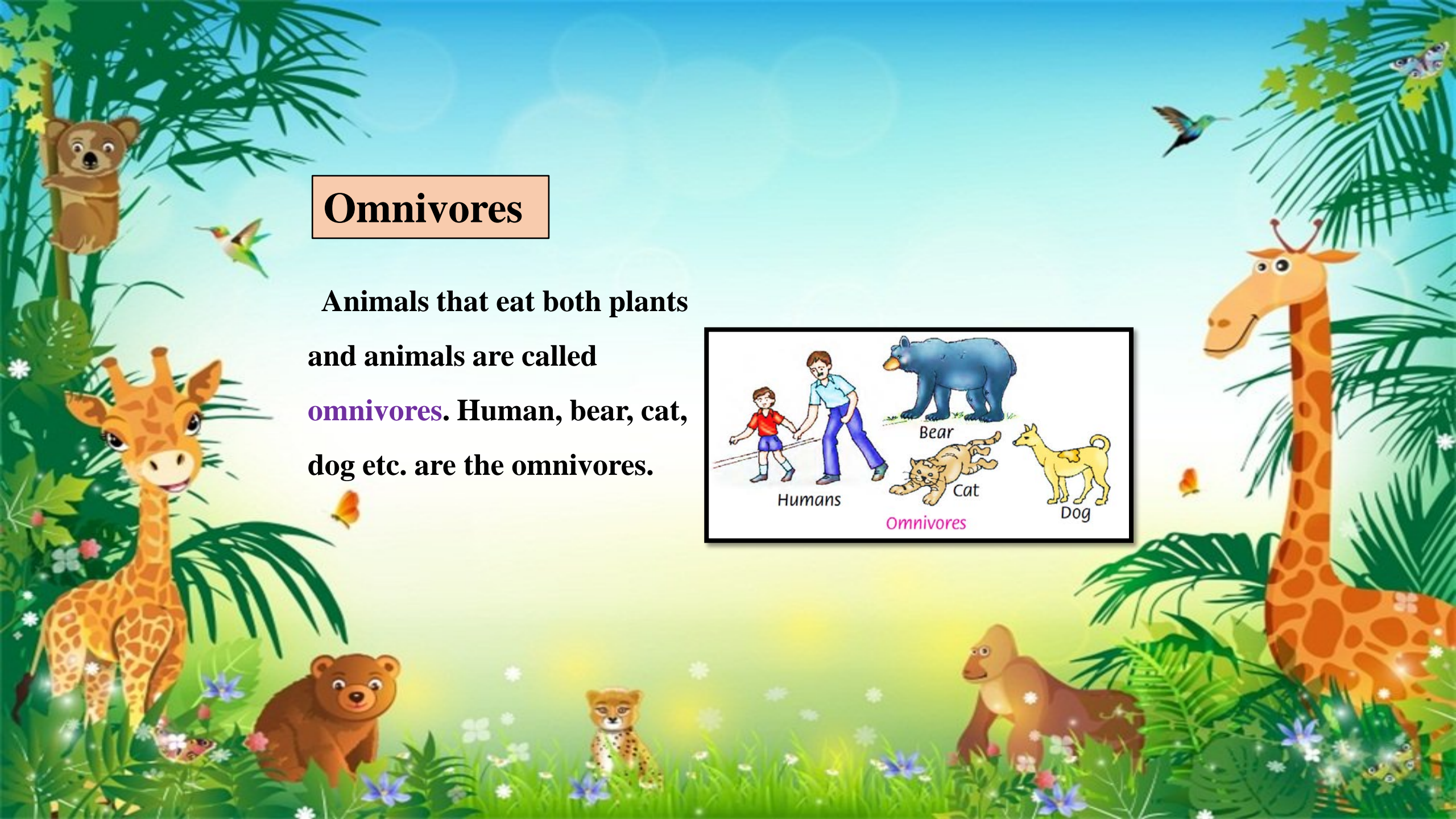
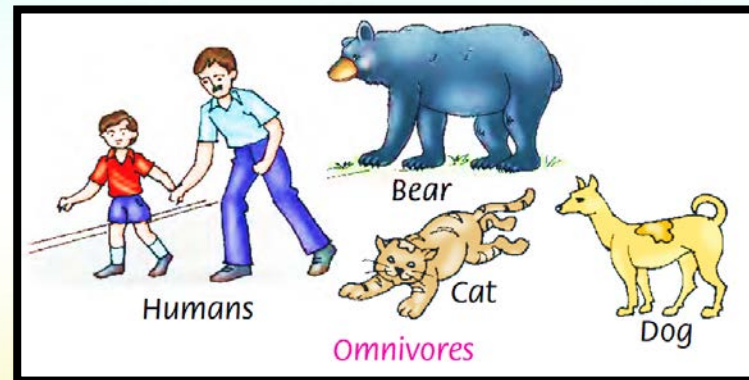
The flesh-eating animals are called **carnivores** . Lion, tiger and wolf are the carnivores. They have long, sharp teeth and claws which help them to tear flesh. They have strong legs which help them to catch their prey.

Snakes have scales on their body that help them to crawl on the ground. Snakes swallow their prey as whole. Eagle and vulture have sharp claws and beaks, to catch their prey and tear flesh.



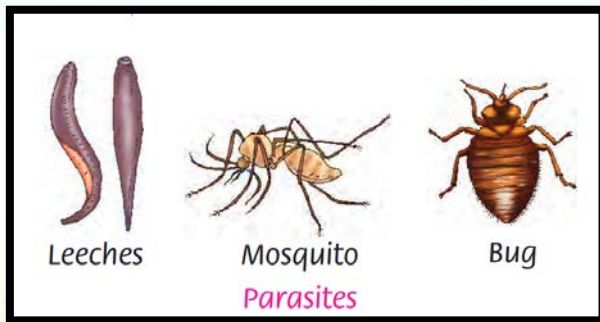
Omnivores

Animals that eat both plants and animals are called **omnivores**. Human, bear, cat, dog etc. are the omnivores.



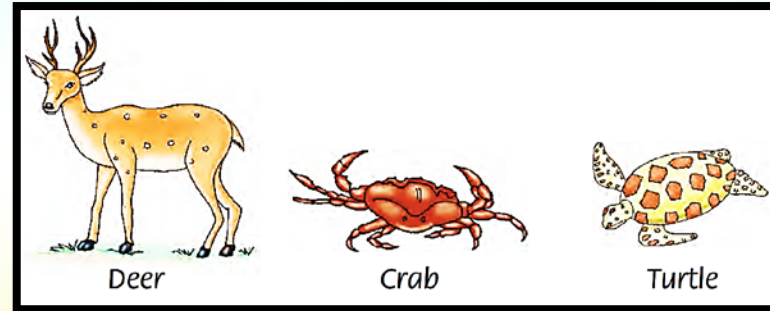
Parasites

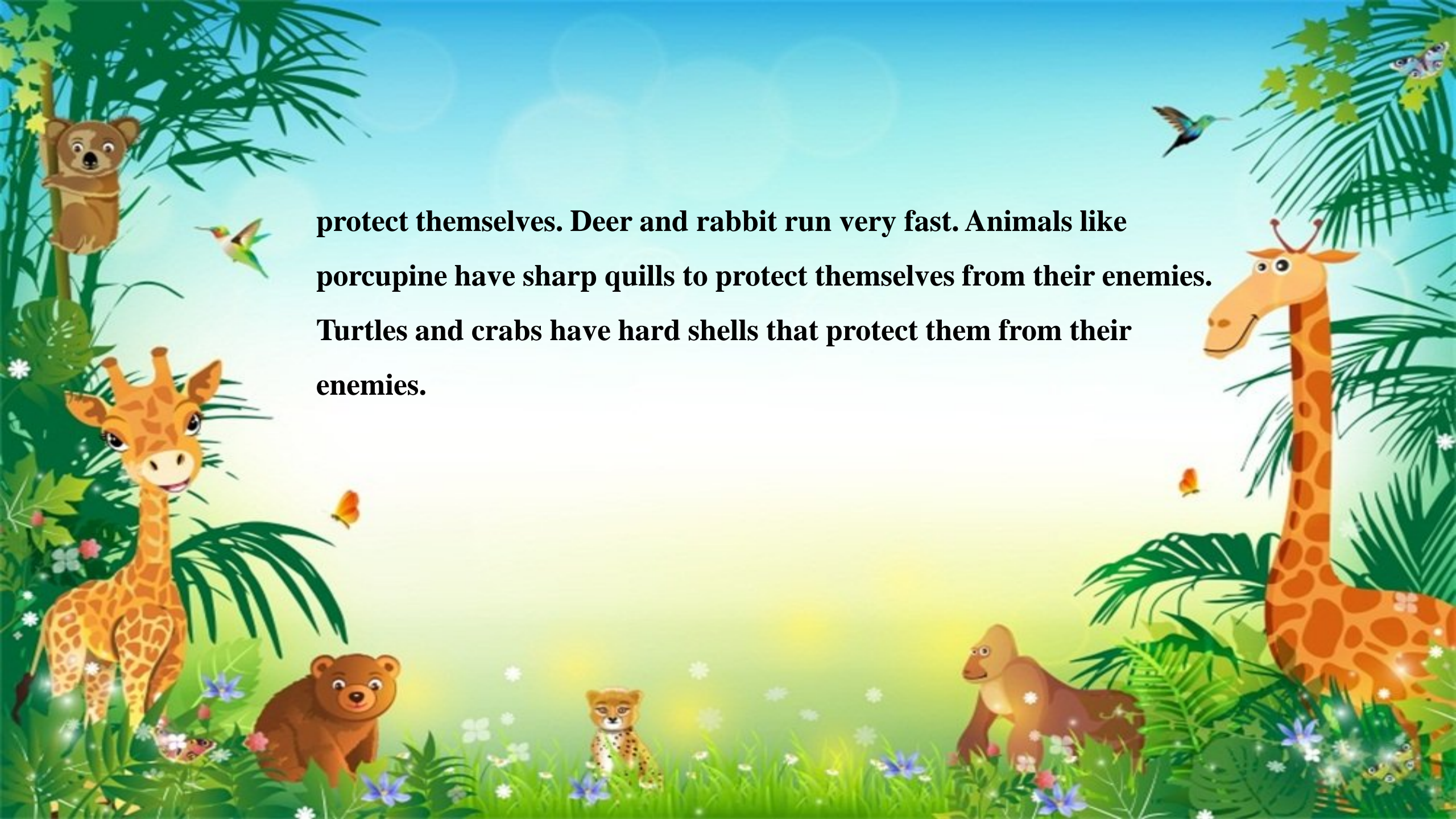
Some animals depend on other animals for food. They are called **parasites**. Leech, mosquito and bug are the parasites. They live on the bodies of other animals and suck their blood. Their mouth parts are best suited to suck the blood.



ADAPTATION FOR PROTECTION

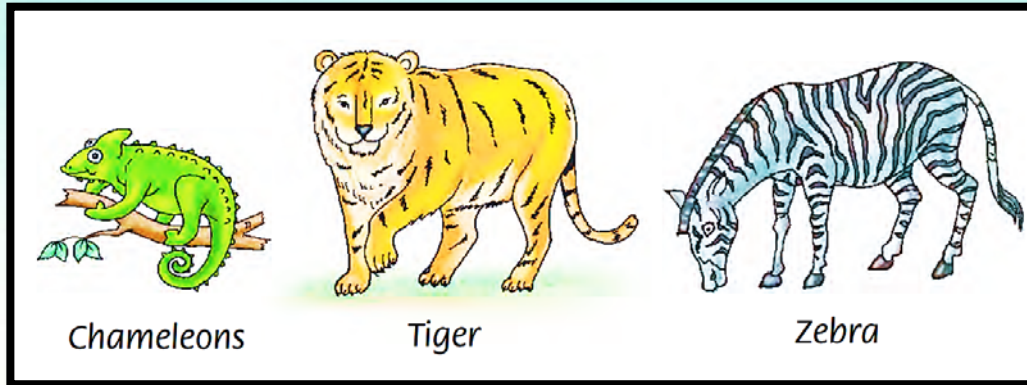
Animals are hunted and eaten by other animals. So they need to defend themselves from their enemies. Some animals run very fast to






protect themselves. Deer and rabbit run very fast. Animals like porcupine have sharp quills to protect themselves from their enemies. Turtles and crabs have hard shells that protect them from their enemies.

Some animals have developed ways to merge with their surroundings.



It then becomes difficult to see the animal. This is known as camouflage.



Chameleons can change the colour of their skin to match the surroundings. Tigers and zebras have stripes which help them to merge with their surroundings.



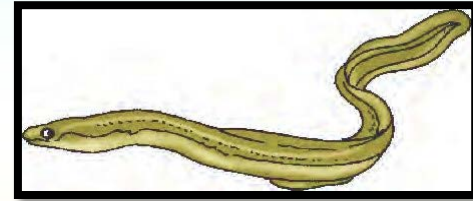
MIGRATION

Migration is the regular movement of the animals to a certain area. This migration of animals is seasonal. They travel at different times of the year. Animals migrate in search of food, to avoid extreme



Siberian Crane

intolerable climate and to reach their breeding grounds. **Siberian cranes** migrate every year to India from Siberia during winters. **European eels** swim all the way to the Sargasso sea



Eels



**in the western part of the Atlantic ocean to lay
eggs. The baby eels then take three years to
swim back to the European rivers.**



Check Your Knowledge

Fill in the blanks.

1. _____ suck the blood of other animals.
2. _____ have flat back teeth to chew grass.
3. Carnivores have _____ to tear the flesh.



Fact File

- Leaf insect looks like a leaf. It is sometimes called a walking leaf because of this similarity.
- Polar bear is difficult to locate in snow because of its white colour.
- Squirrels, rabbits and rats nibble the fruits and nuts. They are called gnawing animals.



Things to Remember

- **The environment in which a plant or an animal lives, is its habitat.**
- **The animals are divided into five categories depending on their habitat namely terrestrial, aquatic, amphibians, arboreal and aerial animals.**
- **According to their food habits animals can be classified as herbivores, carnivores, omnivores and parasites.**
- **The ability of animals to merge themselves with the surroundings, to protect from the enemies is called camouflage.**
- **The movement of the animals from one place to another, to avoid heat or cold or in search of food is called migration.**

THANK



YOU

