

IN THIS CHAPTER

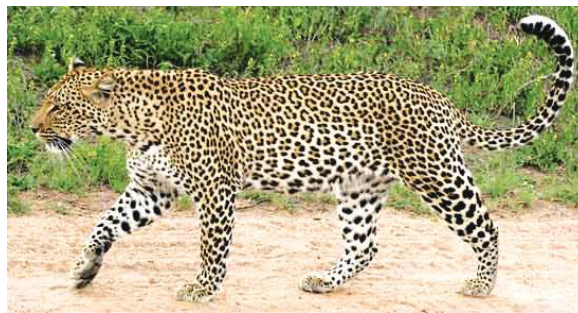
- *Benefits of forest*
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BENEFITS OF FOREST

Forests, a useful gift of nature, are one of the most essential renewable resources. They yield firewood, timber and many useful products like wood, pulp, gum, cork, rubber, bamboo etc.

Forests are the sources of medicines too. They provide home for wild animals. Forest prevent soil erosion and control floods.

Forest is the habitat of many, animals such as jackals, bison, bear, elephant, porcupine, lion live in the deeper areas of the forest.



Animals that live in the forest

Monkey also live in the forest and they produce a sound when they see any person or huge animals. This is a type of alert for other animals.

All animals directly or indirectly depend upon the plants for food. Plants give us food and oxygen.

Many plants and trees also gives us food, wood, timber, gums etc. We get rubber from rubber plants. We also get cotton and jute from plants.



Forest as habitat

Sheesham tree are very useful. Its wood is very good for furniture. Some plants and trees have medicinal values such as tulsi, neem, fox glove etc.



Sheesham



Rubber plant



Neem tree

Some useful products yield from the forests are honey, sealing wax, gum, timber etc.



Honey



Wooden statue



Sealing wax



Catechu



Gum



Woods

Forest products

GROWING OF PLANTS

Plants grow in forest. Many trees produce enough seeds. The forest floor provides favourable conditions for them to germinate and develop into seedling and saplings. Some grow up into trees.

Branchy part of a tree above the stem is known as the crown of the tree.

In the forest, branches of some tall trees look like the roof over the smaller trees. This is called canopy. Trees had crowns of different types and sizes. These had created different horizontal layers in the forest. These are known as under stories. Giant and tall trees constituted the top layer followed by shrubs and tall grasses and herbs formed the lowest layer.

Different forests have different types of trees and plants due to different climate conditions. The forest floor is seemed dark coloured and is covered with a layer of dead and decaying leaves, fruits, seeds, twigs and small herbs. The decaying matter is moist and warm.

Plants Depend on Animals

Some animals such as the butterfly, honeybee, humming bird, bat and moth help to pollinate flowers. Without, pollination, flowering plants cannot form seeds and hence cannot reproduce.

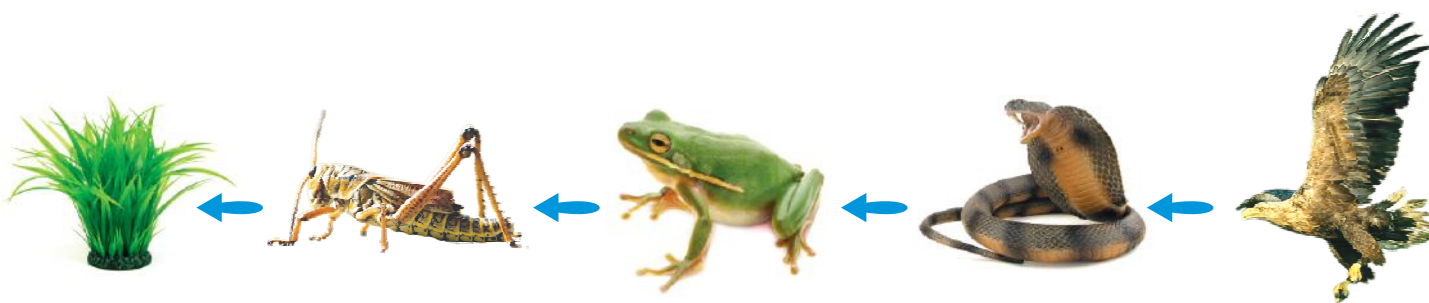
Animals also help in dispersal of seeds. Several seeds of fruits have hair or spines on them. These stick to the animal's skin or fur and are carried to long distance and germinate to grow as a plant. Animal excreta and their dead bodies add nutrients to the soil. They act as manure and provide minerals for plant growth.



Animals and birds too help plants in different ways

FOOD CHAIN

A grasshopper eats a green plant, a frog eats the grasshopper, the snake eats a frog and eagle eats the snake. This is called food chain.



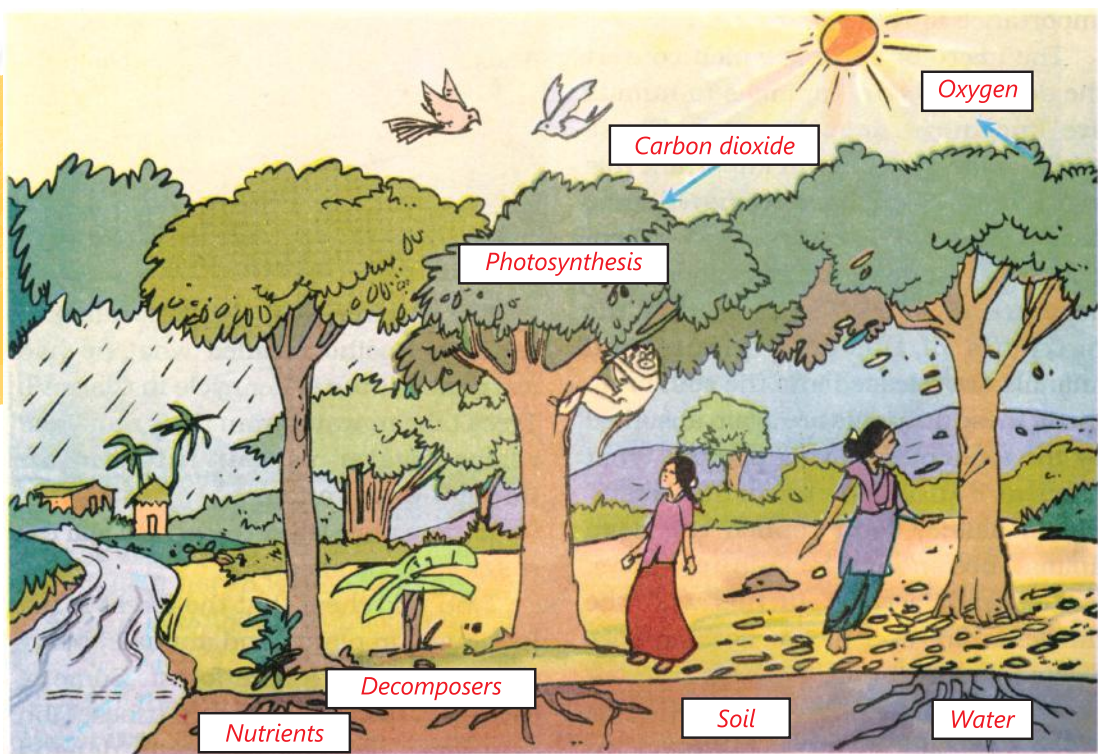
Food chain

In the food chain, energy from plants is passed on from one organism to another. From the producers, the energy goes to primary consumers and is then passed on to secondary consumers. They are called carnivores. Thus producers are always at the beginning of the food chain. The role of decomposers comes at the end when plants and animals die, some small insects like ants, beetle and millipedes feed upon the dead plant and animal tissues and convert them into a dark coloured substance called humus.

The micro organisms which convert the dead plants and animals to humus are known as decomposers. These micro organisms play an important role in the forest.

Do You Know?

Deforestation has resulted in the reduction of the forest cover to four-fifth of their original cover.



Interrelationship of plant, soil and decomposers in a forest

The presence of humus ensures that the nutrients of the dead plants and animals are released into the soil. These nutrients are again absorbed by the roots of the living plants.

Raindrops do not come down directly to forest floor. The uppermost layer of the forest canopy intercepts the flow of rain water and most of the water come down through the branches and the leaves, it drips slowly over branches of the shrubs and herbs. Forests help rainwater to seep through soil and helps to maintain the water table throughout the year. Forests not only help to control the flood but also help to maintain the flow of water in the streams so that we get a steady supply of water.



Rainwater drips from the trees and seeps into the ground

Heavy rain may also destroy the upper layer of the soil. Roots of trees normally bind the soil together but in their absence the soil is wasted away or eroded.

FOREST CONSERVATION

We know that today population increases than need of houses, farming, wood for fuel, furniture also increase.

To get all these things we cut down forests. This is known as deforestation. This affect our environment badly. Therefore, we should conserve the forests carefully.

Plants Harvesting

When we cut all the trees of the forest then this will result in the erosion of valuable soil. As compared to this it is much better to cut only some trees of the forest. The trees prevent soil erosion and make seeds so that new trees can grow.



AFFORESTATION

This is the practice of renewing a forest by planting seedlings or small trees. These days, in our country, planned forestation is being done not only by the government but also by private organizations for commercial purposes. A little cutting of trees in these plantations provides wood for construction and also keeps the forest cover intact. When forest are cleared the animals who live in the forest become homeless. They cannot find enough food to eat and safe shelter. Some of them starve to death and some are killed for their meat and skin.



Wildlife sanctuary

In India there are 150 wild life sanctuaries to protect some of the rarest animals. The Indian government has laid down laws banning the killing of animals and the clearing of forests.

Know the Keywords :

Understorey : The space between canopy and forest floor in a forest.

Deforestation : Large scale cutting of trees.

Food chain : Simple representation of energy flow in nature.

Point to Remember

- In the food chain, energy from plants is passed on from one organism to another.
- Today population increases than need of houses, farming, wood for fuel furniture also increases. To get all these things we cut down forests. This is known as deforestation.

EXERCISE TIME

A. Answer the following questions :

1. How are the forests helpful for animals and human beings ?
2. What is a food chain ?

3. What are understoreys and how are they developed ?
4. Define the term crown and canopy.
5. What is deforestation ?
6. What is plants harvesting ?
7. What is afforestation ?

B. Fill in the blanks :

1. A forest is a purifier of _____ and _____.
2. Forest is the _____ of many animals.
3. Herbs form the _____ layer in the forest.
4. _____ are called secondary consumers.
5. Cutting of trees from the forest is called _____.
6. _____ converts the dead plants and animals to humus.
7. Forests influence climate _____ and _____.

C. Tick (✓) the correct option :

1. A forest is a :
 - (i) renewable resource
 - (ii) man-made resource
 - (iii) non-renewable resource
2. Which of the following can be obtained from the forest ?
 - (i) wheat (ii) rice (iii) rubber
3. Which plant's wood is most useful in making furniture ?
 - (i) neem (ii) peepal (iii) sheesham
4. Food chain always begins with a :
 - (i) herbivore (ii) carnivore (iii) producer
5. Forests prevent erosion of :
 - (i) trees (ii) soil (iii) water
6. Plants gives us food and :
 - (i) carbon-di-oxide (ii) nitrogen (iii) oxygen



Creative Work

- Write five reasons why we should save forests.