

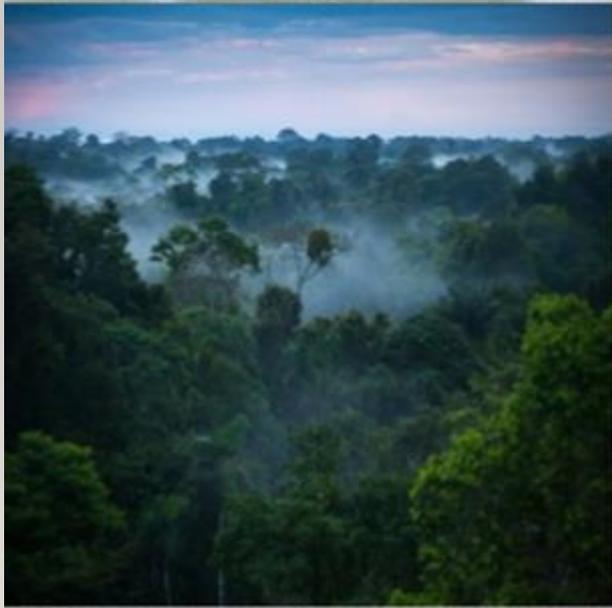
A vibrant, sun-dappled forest scene with tall, slender trees and a dense canopy of bright green leaves. A dirt path winds through the forest, where a few small figures of people can be seen in the distance. The bottom of the image features a wooden plank floor texture.

FOREST CHAPTER – 15 CLASS VII

(17.08.20 – 22.08.20)

FOREST

An area with high density of tree is called **FOREST**. A forest is a system which is composed of plants, animals and micro-organisms.



COMPONENT OF FOREST

Two categories of component are

1. Biotic Component (living)- It include trees, animals, plants, birds, micro-organisms and other living things.

2. Abiotic Component (non-living)- It include soil, water, minerals, air, landforms.

Biotic component and abiotic component both interact with one another.

Different components of Forest ecosystem



LIFE IN FOREST

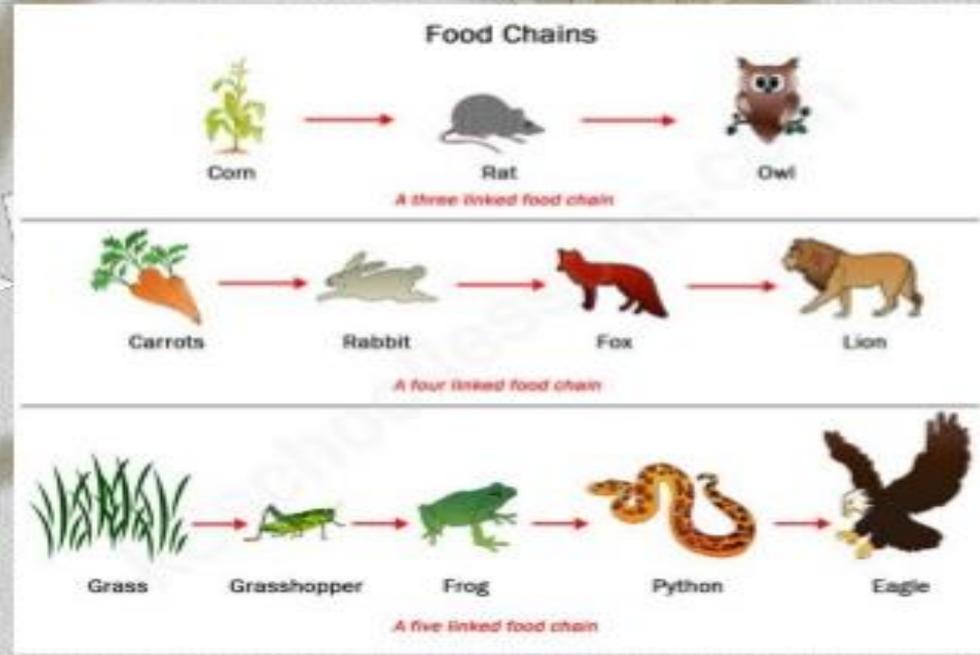
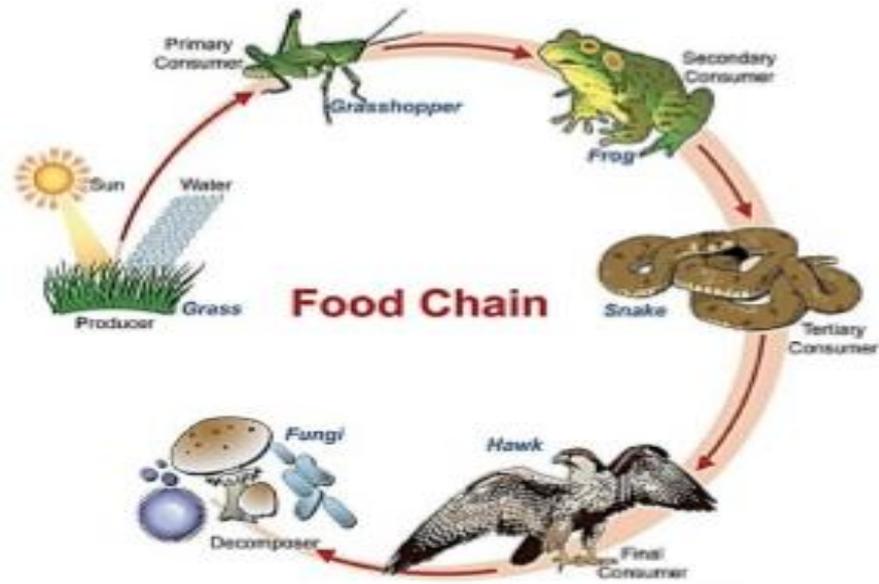
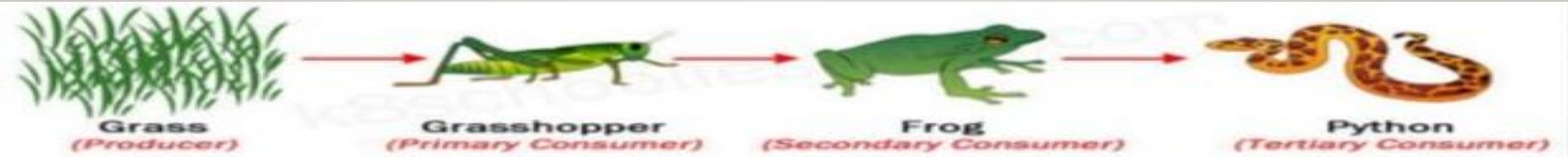
FOOD CHAIN

Food chain is the sequence of who eats whom in an ecosystem to obtain nutrition (food).

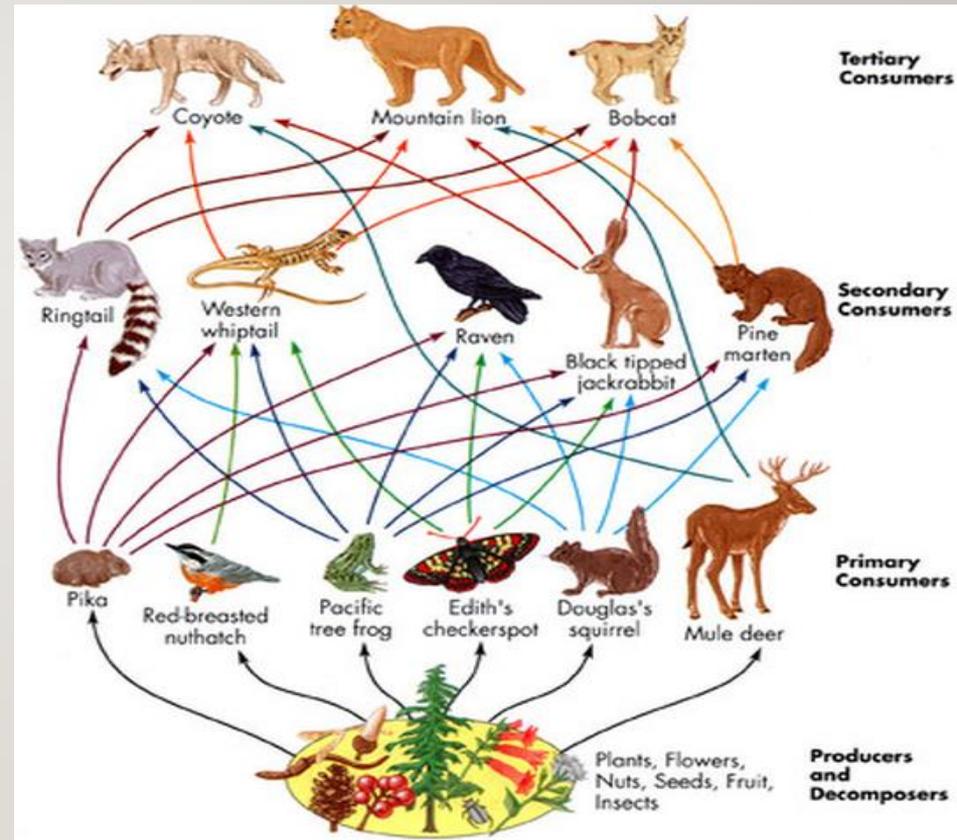
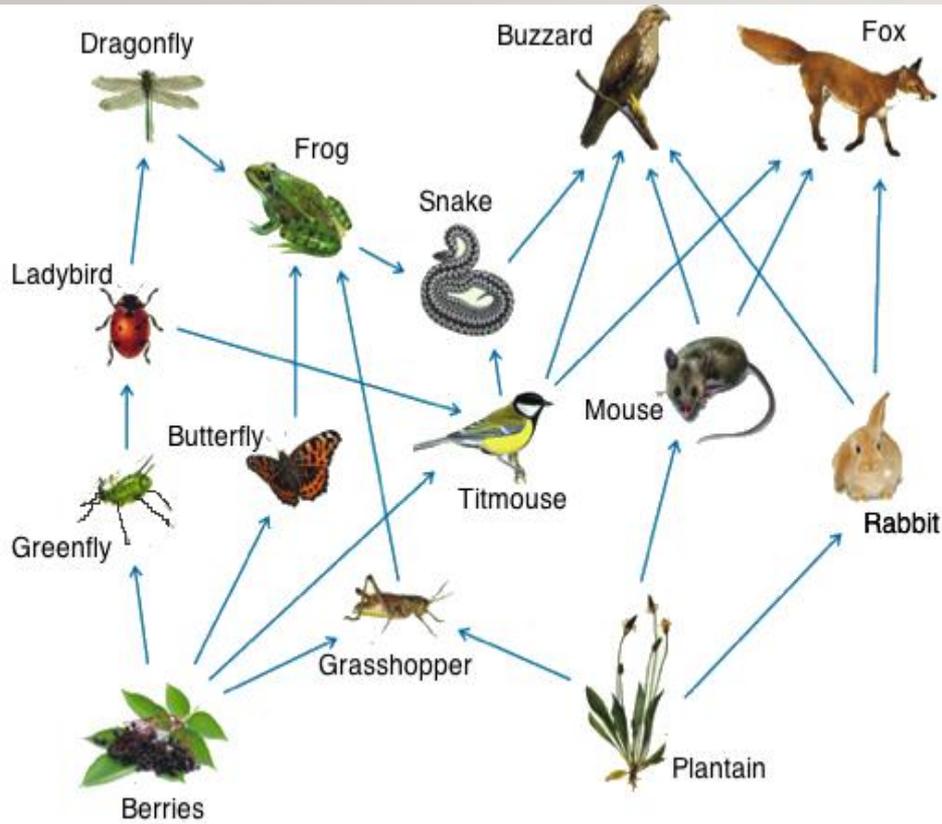
Sample Food Chains

Trophic Level	Grassland Biome	Pond Biome	Ocean Biome
Primary Producer	grass	algae	phytoplankton
Primary Consumer	grasshopper	mosquito larva	zooplankton
Secondary Consumer	rat	dragonfly larva	fish
Tertiary Consumer	snake	fish	seal
Quaternary Consumer	hawk	raccoon	white shark

FOOD CHAIN



FOOD WEB



THE LAYERS OF THE FOREST

There are 4 major layers of the forest:

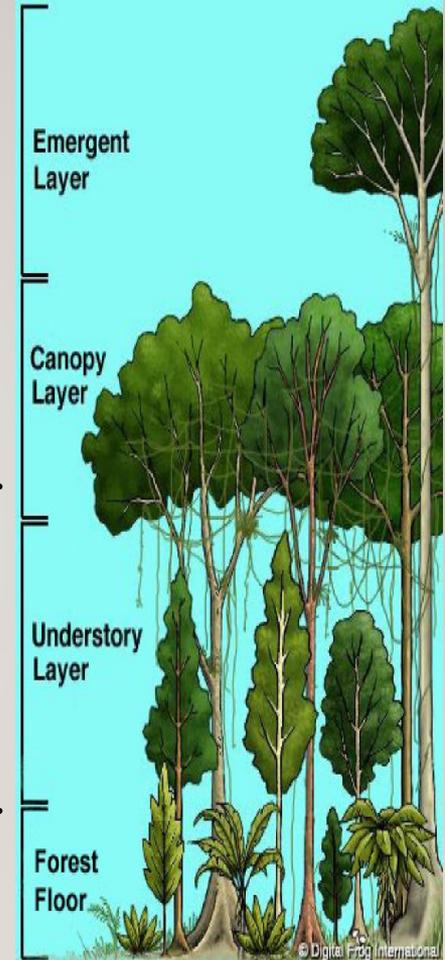
1. Emergent Layer
2. Canopy Layer
3. Understory Layer
4. Forest Floor Layer

1. EMERGENT LAYER

This layer consist of only tallest trees & this layer is very sunny because it receive maximum sunlight. It is also known as the overstory. Animals like eagles, monkeys, bats & butterflies are found.

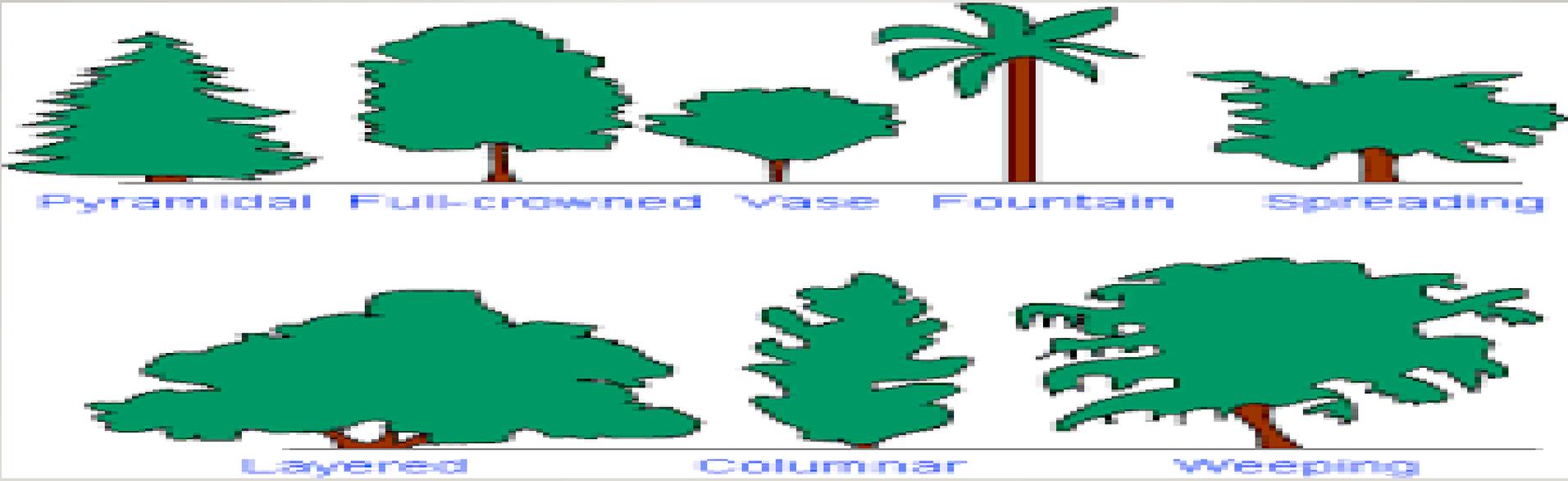
2. CANOPY LAYER

This layer is formed by the mass of intertwined branches, twigs, leaves of tall tree & mature tree. This layer is most productive part of tree where maximum food is produced. It receive up to 95% of sunlight. Many animals like birds, frogs, lizards, snakes and many insects are found.



CROWN OF TREES

The tree crown is the top part of the tree which features branches, leaves, and reproductive structures extending from the trunk or main stem. Shapes of crowns are highly variable. Crown of several trees in the forest make the canopy.



IMPORTANCE OF FOREST

1. Provide habitats for animals and livelihood for humans.
2. Agriculture and animal husbandry are dependent on forests and forest land.
3. Forests maintain the moisture content of the atmosphere. This helps in determining the rainfall in an area.
4. They are known as lungs of earth as they maintain the oxygen carbon dioxide ratio by inhaling carbon dioxide and exhaling oxygen.
5. Forests produce humus and maintain soil fertility.
6. Forests are natural absorbers of rain water.
7. Forests also reduce the speed of strong winds and trap dust and gases.
8. A wide variety of food-giving plants and livestock occur in the forests and grasslands.
9. Forests are the most important source of timber and raw material for paper industries.
10. The non timber forest products include gum, fruits, nuts, oil, dyes and medicinal plants.
11. Forests prevent soil erosion.
12. They regulate the water cycle.

DEFORESTATION

Large scale cutting of trees to clear land for human use is called deforestation.

Deforestation is the conversion of forest land to non- forest land for use such as arable land, pasture, urban use, logged area.

CAUSES OF DEFORESTATION

1. Logging
2. Mining
3. Oil and gas extraction
4. Cattle ranching
5. Agriculture
6. Construction.



CONSEQUENCE OF DEFORESTATION

1. Soil erosion and loss of soil fertility.
2. Loss of habitat for many species.
3. Loss of biodiversity- extinction of species of plants and animals.
4. Increase greenhouse gas emissions leads of Global warming (Climate change).
5. Shortage of drinking water at many places.
6. It disrupts the water cycle.
7. Loss of natural beauty of an area.
8. Desertification – (dry, hot, arid conditions).
9. Pollution – (ground, water and pollution from oil extraction and mining chemicals).
10. Displacement of people.



Teak tree

Neem tree



SOME COMMON TREES IN INDIA

- **Teak:** It is used for making furniture & doors. It has also medical value. Its bark is useful in fever.
- **Neem:** It is also known as **Miracle tree**. It has good medicinal value. It is useful tree in reagitating the waste land area.

Eucalyptus tree



Deodar tree



SOME COMMON TREES IN INDIA

➤ **Eucalyptus:** it is a tall evergreen tree. There are more than 700 species of Eucalyptus all over the world. It is mainly used as pulpwood in the manufacturing of the paper.

➤ **Deodar:** It is large evergreen coniferous tree reaching height of 40-60 m and trunk diameter can be up to 3 m. It has a conic crown with level branches and drooping branches.

SOME COMMON TREES IN INDIA

- **Sal:** Sal is a large sub deciduous tree. It is found in all parts of India. It is worshipped by the Buddhists and Hindus in India.
- **Amaltas:** Amaltas also called the Golden Shower Tree. It is widely grown as an ornamentals plants. Every part of this plant is recognized for its medicinal properties.



SOME COMMON TREES IN INDIA

➤ **Ashoka:** Ashoka tree (the sorrow-less tree) is a flowering tree & considered sacred through out India and Sri Lanka. It is prized for its beautiful foliage and flowers.



THANKS