

PRESENTATION ON ECOSYSTEM



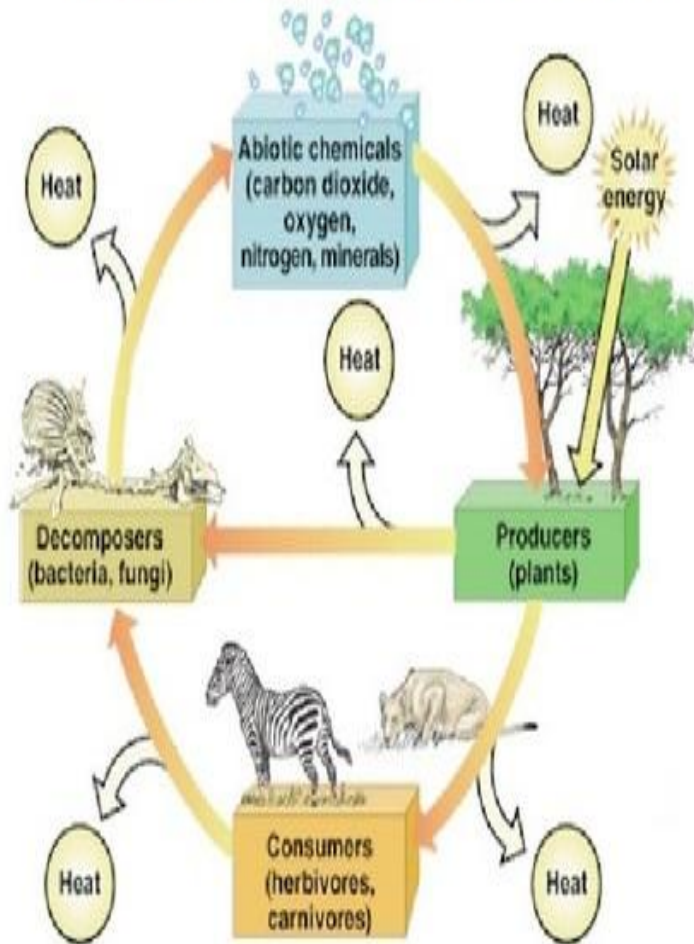
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ECOSYSTEM

An ecosystem is a geographic area where plants , animals, and other organisms as well as weather and landscape work together to form a bubble of life .

COMPONENTS OF ECOSYSTEM

BIOTIC FACTORS



Abiotic factors



Water



Light



Air



Minerals



Soil



Temperature

BIOTIC COMPONENTS

Biotic components describe all living component of an ecosystem , namely :

1. Animals
2. Plants
3. Micro-organism

GROUPS

Depending on how they obtain food living organisms can be divided into three groups:

1. **Producers** : Producers are green plants that make their own food in the presence of sunlight using carbon dioxide , water and minerals .
2. **consumers** : They are living organisms that cannot make their own food and consume other plants or animals.

CONSUMERS ARE FURTHER DIVIDED INTO :

- A) HERBIVORES** : Animals that eat green plant. Ex – deer, cow , etc.
- B) CARNIVORES** : Animals that eat other living animals. Ex – lion , tiger etc.
- C) OMNIVORES** : Animals that eat both plants and other animals . Ex – vulture, heyenas.

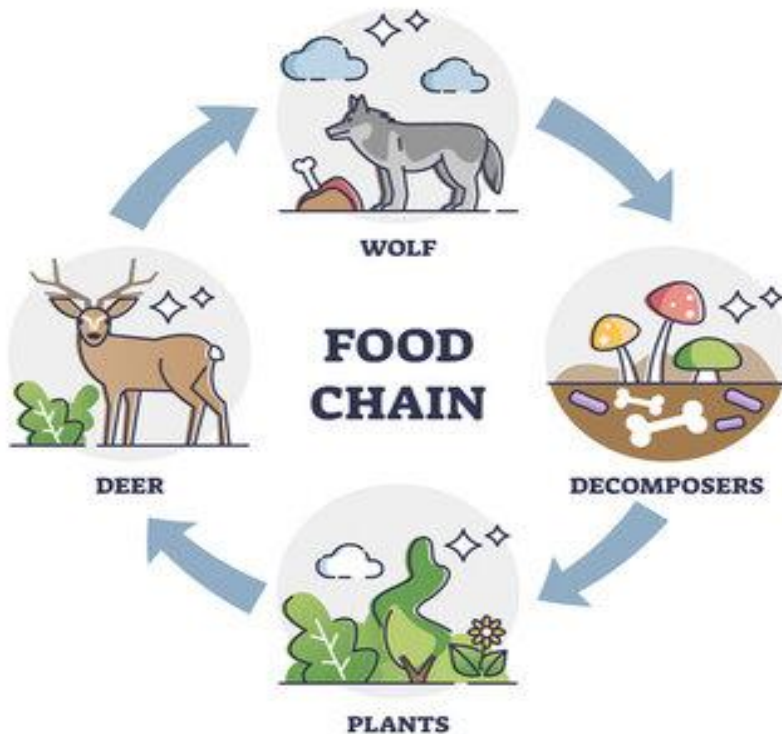
3. DECOMPOSER – There are some micro-organisms that feed on dead bodies of organisms and decaying organic matter they are called decomposer . Ex – bacteria and fungi.

INTERACTION BETWEEN BIOTIC COMPONENTS

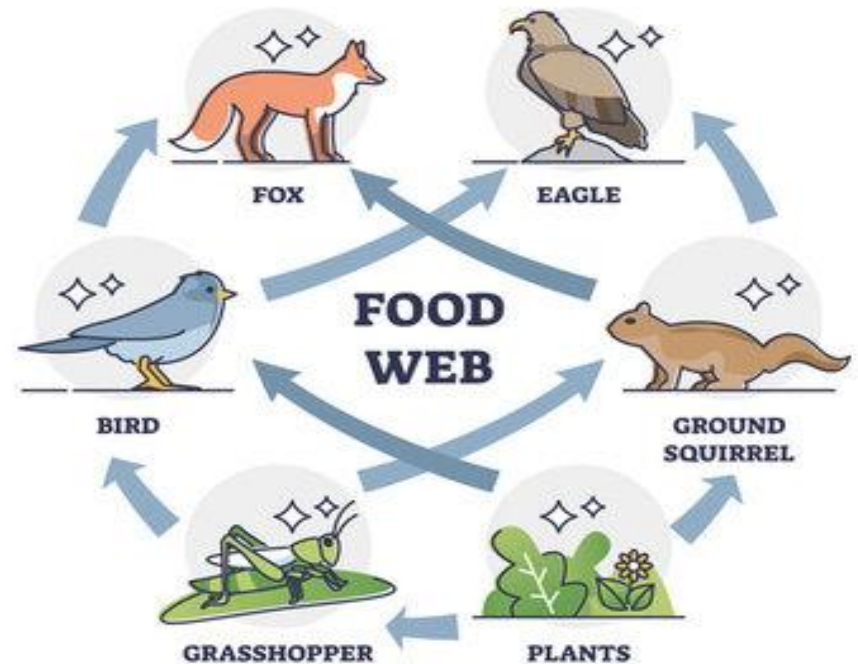
Now we will know how biotic components are linked will eat other by proces of food chain and food web

FOOD CHAIN AND FOOD WEB

A series of organisms that are linked together through a process of eating and being eaten forms a food chain. Ex



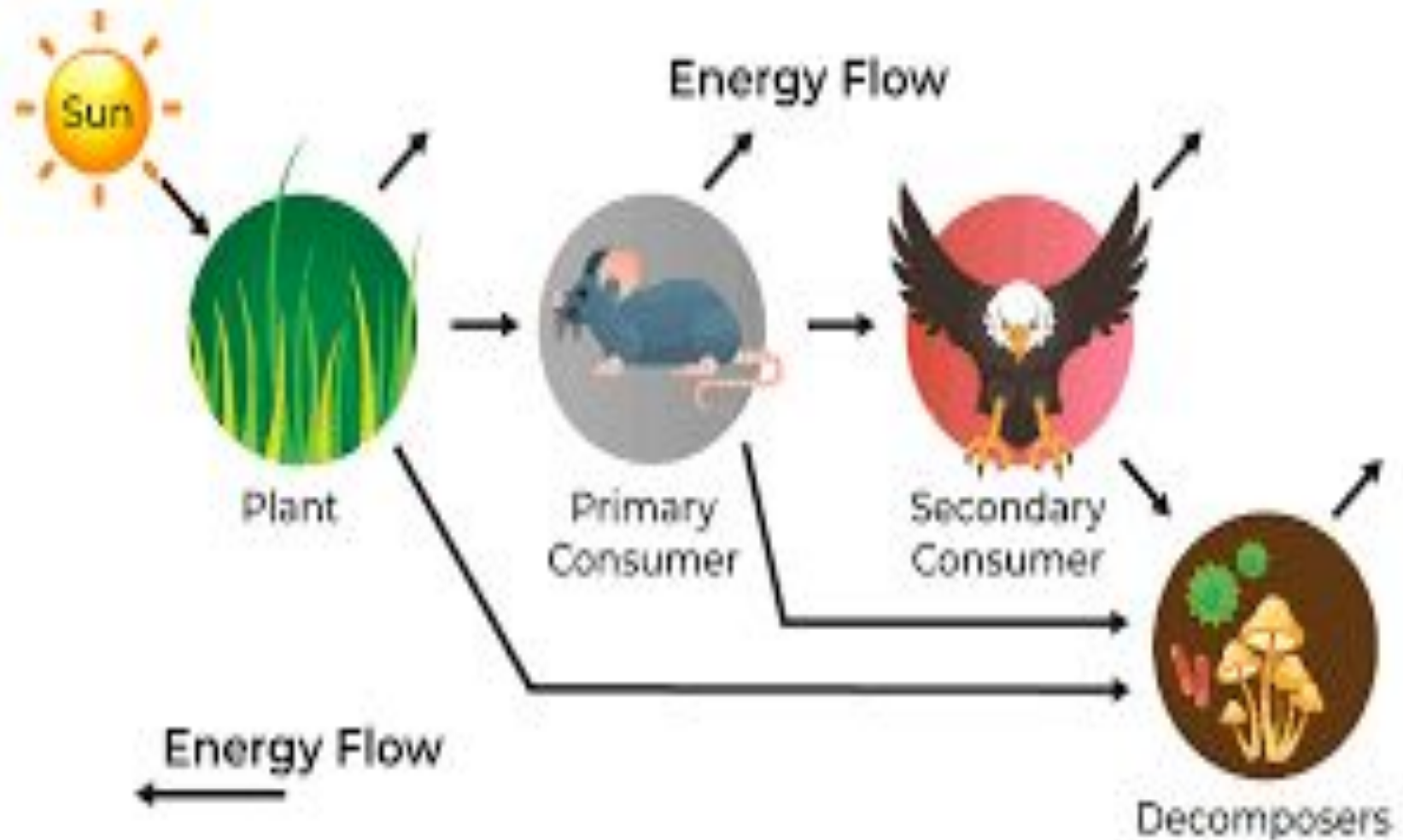
Several food chains interconnect together to form a food web, as an organism can be the part of not only one food chain but several food chain. Ex –



FLOW OF ENERGY

Green plants convert solar energy into chemical energy and when herbivores eat green plants and it is transferred to them. This is how energy is passed from one organism to another.

FLOW OF ENERGY



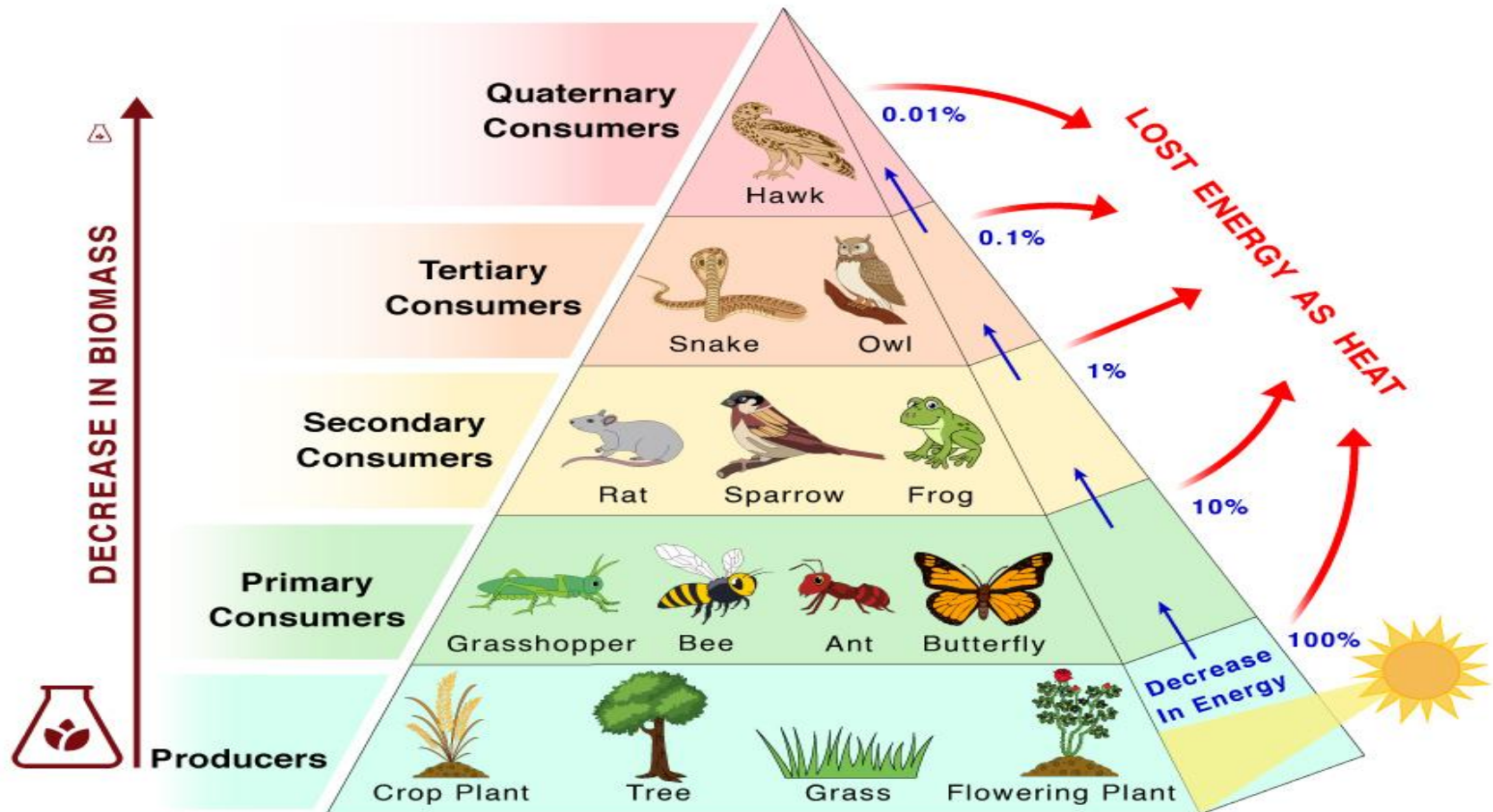
TROPHIC LEVELS

1. Green plants are producers , who produce energy are on the first trophic level.
2. Herbivore or primary consumers, who feed on producers are on the second trophic level.
3. Carnivores of secondary consumers who feed on herbivores are on third trophic level.
4. Large carnivorous or tertiary consumer who feed on other carnivores are on fourth trophic level.

The below chart shows the trophic levels of different organisms through the pyramid of numbers

Trophic Levels

Science Facts .net



ABIOTIC COMPONENTS

The non living things in an ecosystem are called abiotic components of the ecosystem , these include air , water , soil and climatic factors such as sunlight, temperature , humidity and wind each of these has specific influence of life of organisms.

ABIOTIC COMPONENTS EXPLAINED

Air – Almost all living organisms on earth need air to live. Plants use carbon dioxide from where to make food to release oxygen, this oxygen is then used by living organisms for respiration this is how it helps all living organisms to live.

Water – Water is also a very important chef kitchen for all living organisms all metabolic activities such as digestion excretion and circulation class with water as a material in almost.

Soil – soil is the top most layer of the earth crust all living organisms of the earth depend on soil because it provides a medium for growth of plants . Plants also get water and mineral fro soil . Soil is also home to many varieties of organisms.

Climatic factors – climatic factors are also very important for the life in an ecosystems.

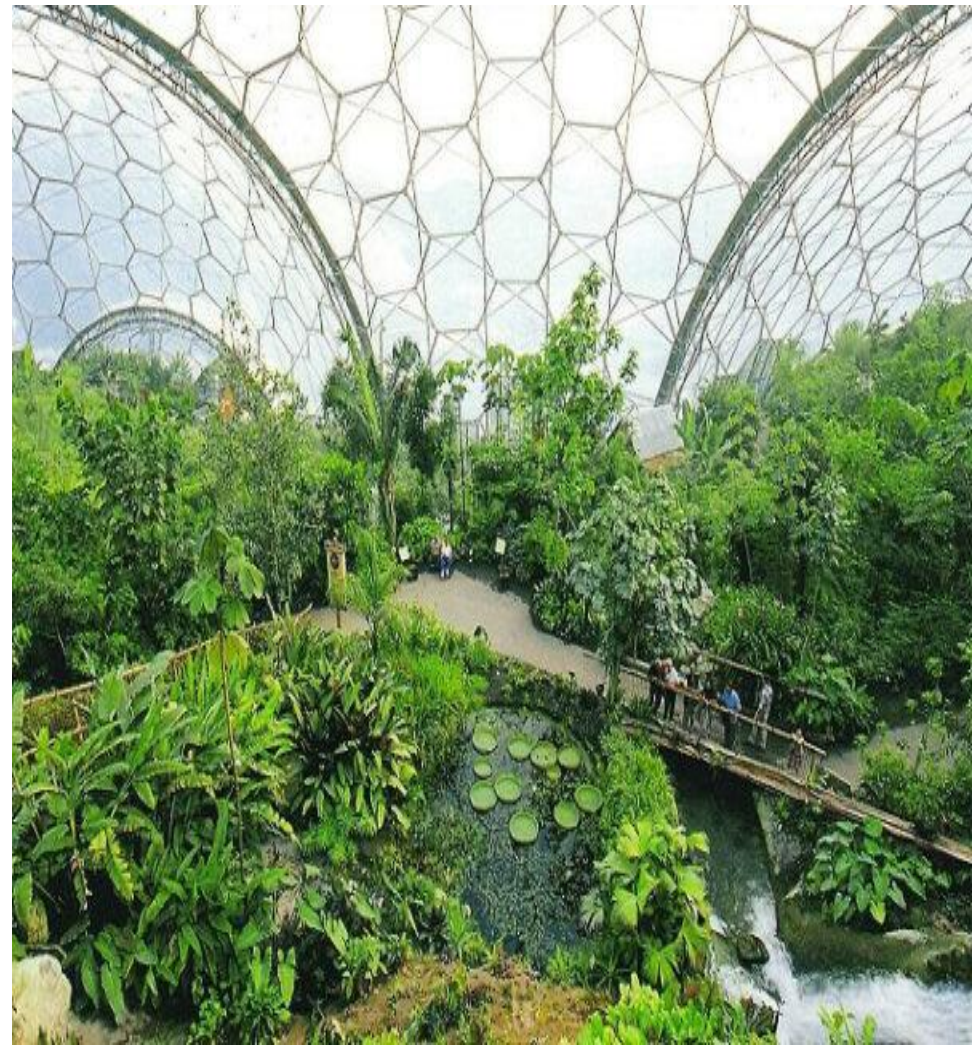
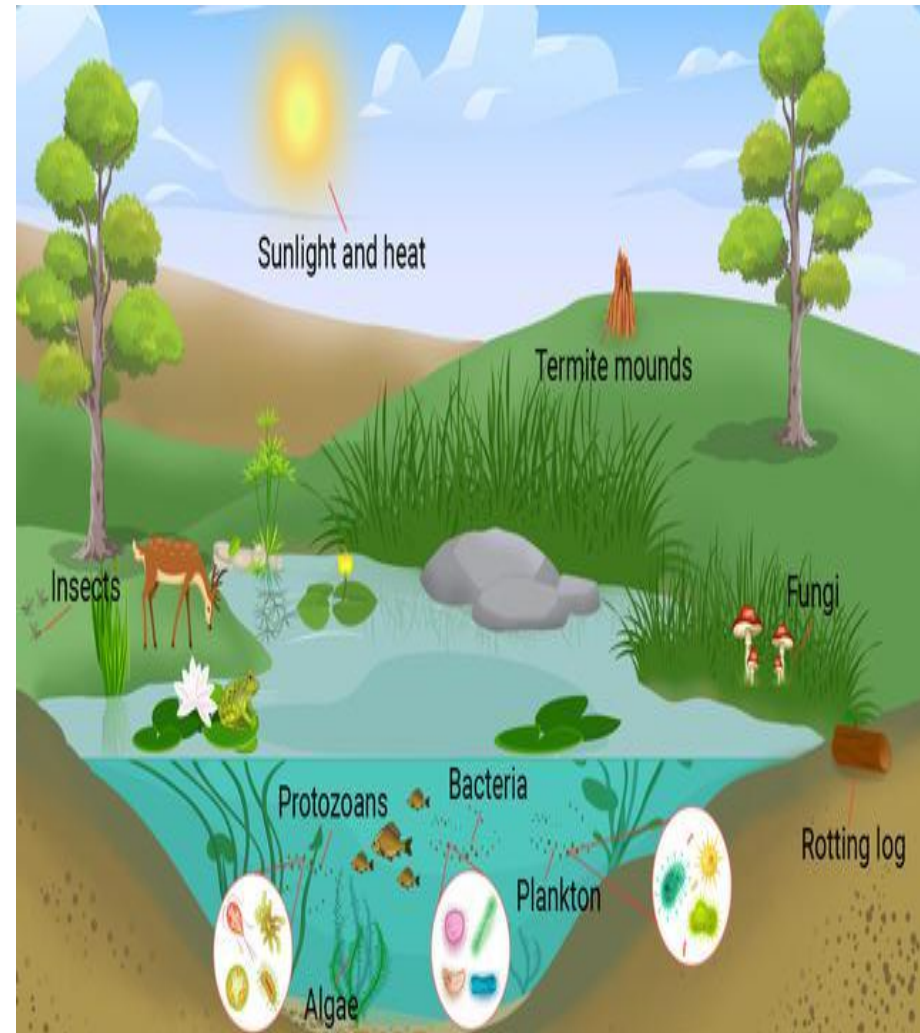
Many climatic factors help life to grow in ecosystems these factors are :

1. Sunlight
2. Temperature
3. Humidity
4. wind

TYPES OF ECOSYSTEM

There Are Two Types Of Ecosystem

Natural ecosystem vs Artificial ecosystem



Natural ecosystem

Natural ecosystem can also be divided into parts

Terrestrial or land based ecosystem

Terrestrial Ecosystems

Forests, Deserts, Grasslands, Mountains



Aquatic or water based ecosystem

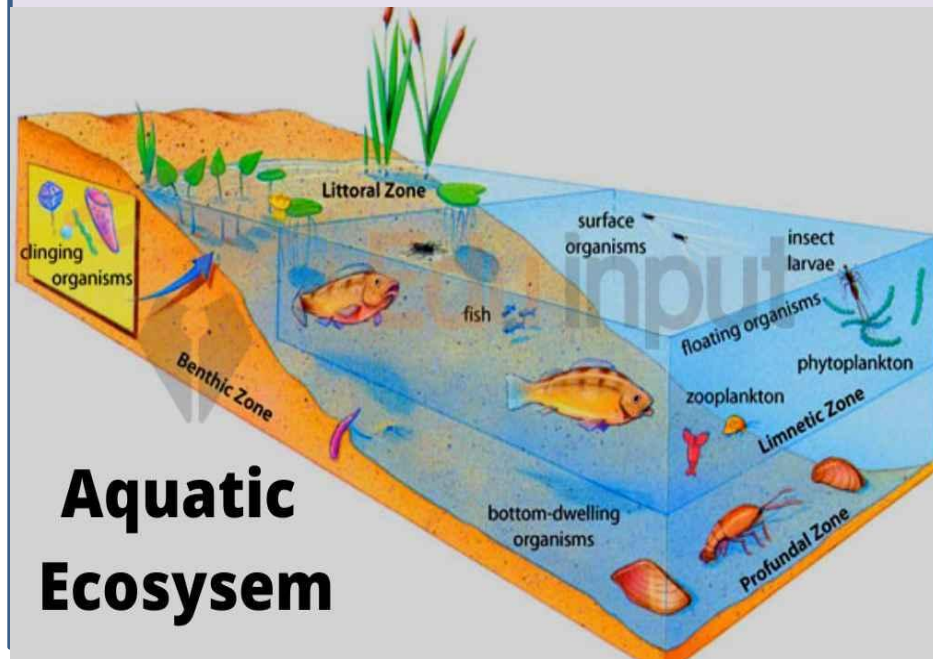


Terrestrial ecosystem and aquatic ecosystem

A terrestrial ecosystem is the land based community of living organisms which interact with their abiotic components. So it is the land based interaction between biotic and abiotic components of the ecosystem.



An aquatic ecosystem is a water based ecosystem in which organisms depend on each other and environment. This includes ocean, seas, rivers, etc. so it is a water based interaction between biotic and abiotic components.



**Aquatic
Ecosystem**

ARTIFICIAL OR MAN MADE **ECOSYSTEM**

Artificial ecosystems rely on the human efforts to sustain them; they do not possess a self-regulating mechanism. They have almost no diversity and have simple food webs. The man-made ecosystems include the village, town, cities, rivers, orchards, dams, gardens, lakes, and agriculture.

IMPORTANCE AND PROTECTION OF ECOSYSTEM

- ❖ Ecosystem is very important for all living organisms including humans and animals and all sea creatures ecosystem keep our live and earth balanced and without ecosystem any living organism cannot exist on earth including humans.
- ❖ Ecosystem need to be protected as human which is very important part of ecosystem is now blooming threat to ecosystem. As pollution and cutting of trees is leading to habitat loss of organism and this is not controlled. An ecosystem can be damaged and pollution and pollution and cutting of trees can also the balance of environment and other ecological factors.

Thank you