



आईएफटीएम विश्वविद्यालय, मुरादाबाद, उत्तर प्रदेश

IFTM University, Moradabad, Uttar Pradesh

NAAC ACCREDITED

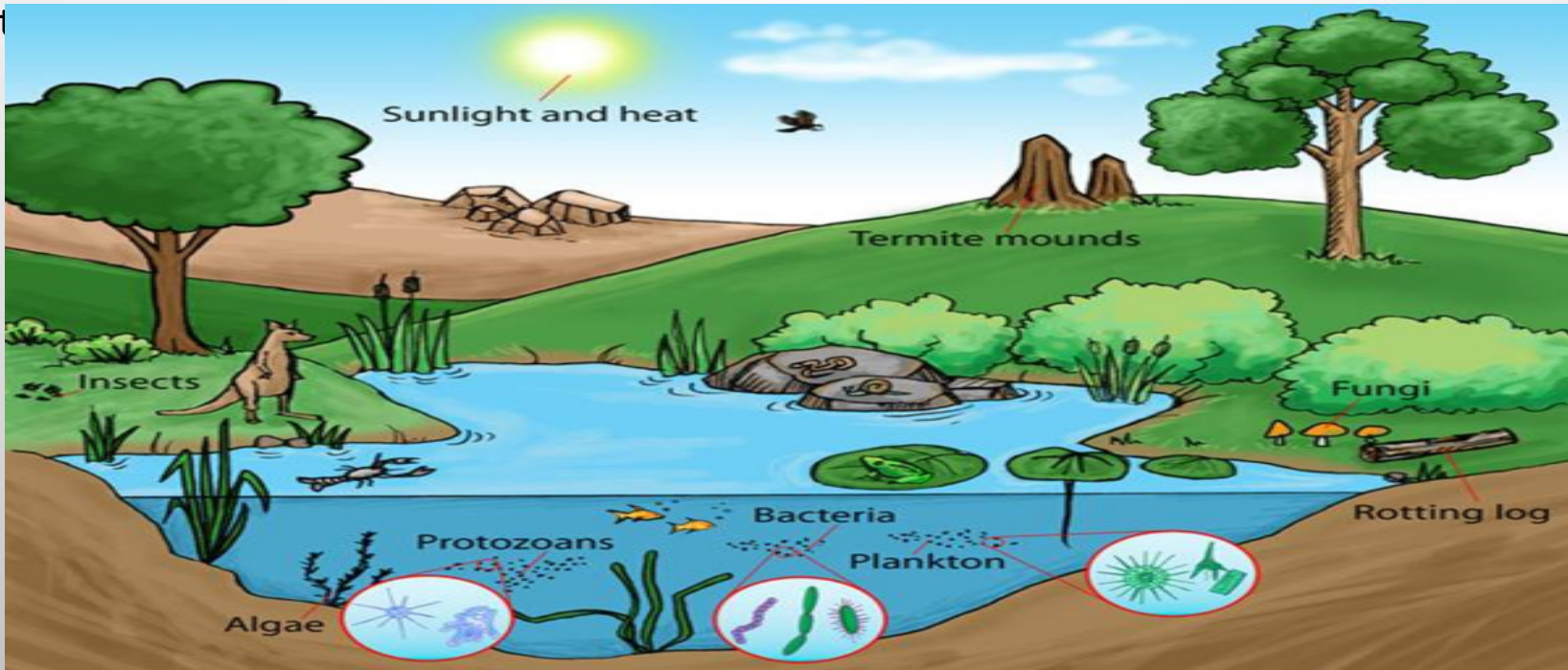
E-Content

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ECOSYSTEM

- A complex relationship between all the living and nonliving things (plants, animals, organisms, sun, water, climate etc) interact with each other is known as '**an ecosystem**'.

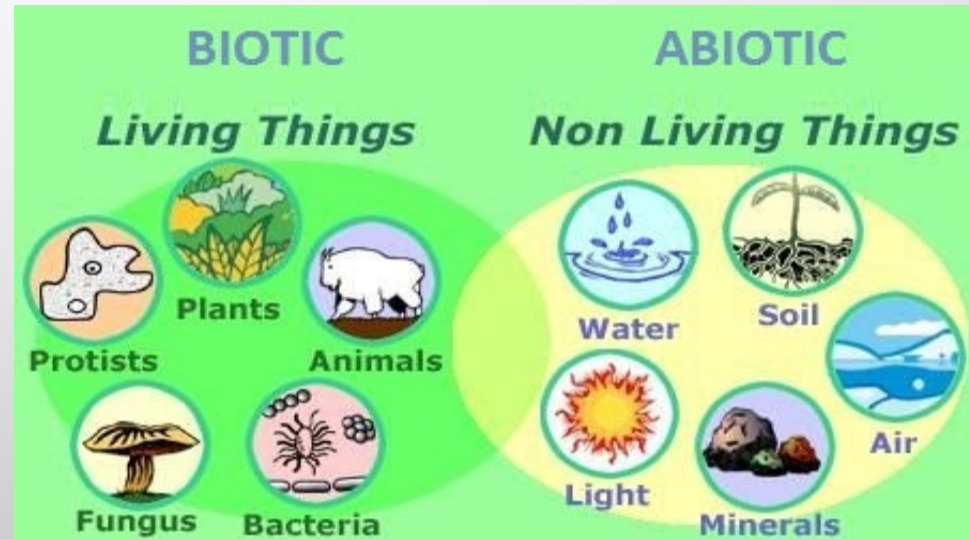
Ecosystems are the foundation of 'biosphere' And maintain the natural balance of the earth



COMPONENTS OF THE ECOSYSTEM

- The components of an ecosystem are divided into **abiotic components**, that include all nonliving components such as minerals, [climate](#), soil, water, sunlight and **biotic components**, that include all the living components. These components together make up for the flow of energy in the ecosystem and the nutrient cycle in the ecosystem.
- **TYPES OF BIOTIC COMPONENTS-**

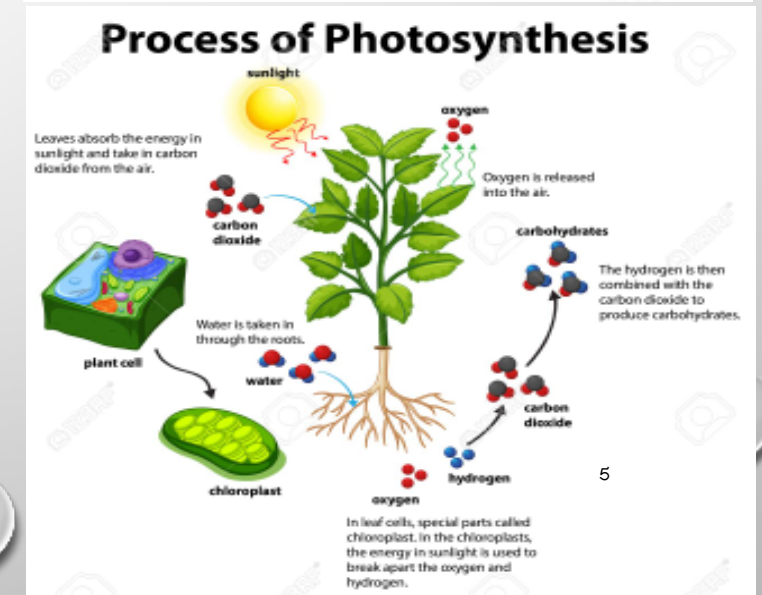
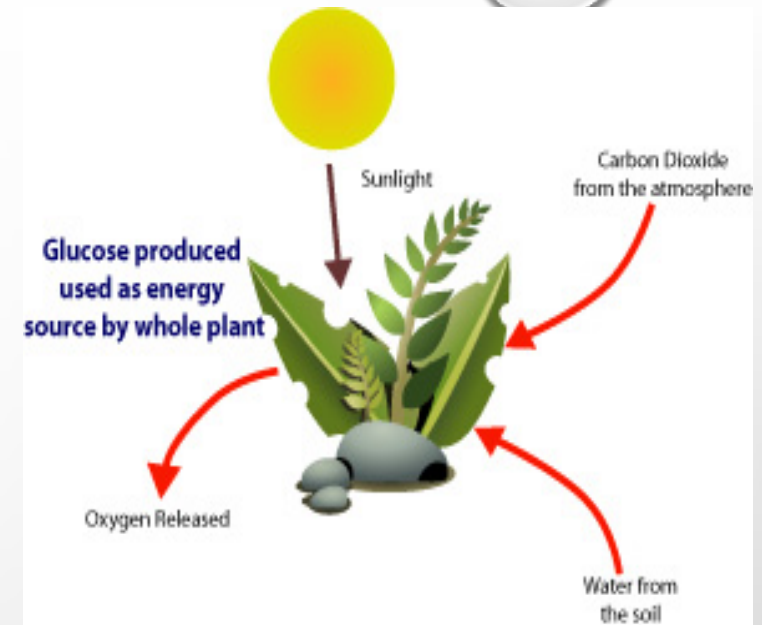
- Producers
- Consumers
- Decomposers



PRODUCERS:

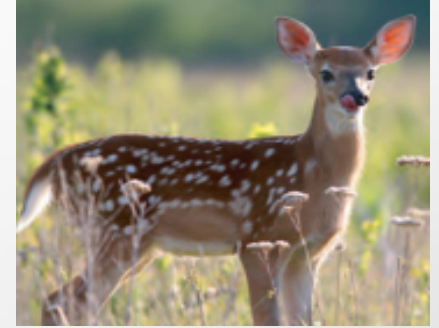
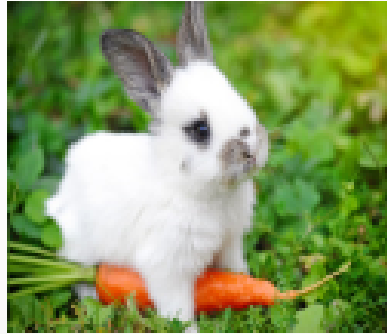
These are food suppliers to all plants and green trees which are termed as producers. For example-

- All green plants and trees take carbon dioxide from the atmosphere, water from the soil, and sunlight from the sun.
- The plants undergo a chemical reaction and it is also known as photosynthesis.
- During photosynthesis, plants liberate oxygen into an environment which is essential for life.
- The below equation explains about the photosynthesis reaction and liberation of oxygen.

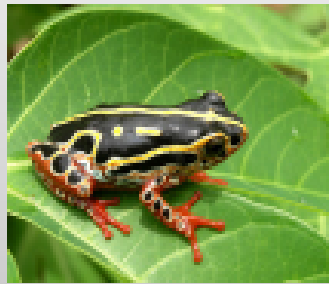
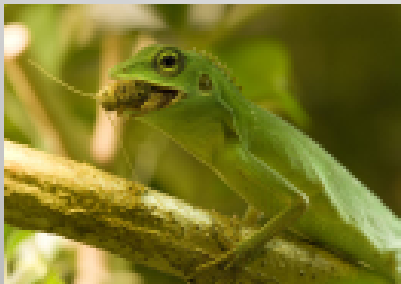


CONSUMERS: Consumers are classified into four groups and they are

Primary consumers: They depend only on plants for their food and they are called as herbivores. The examples of it are insects, flies, deer, and rabbit.



Secondary consumers: These are the animals which depend on herbivores for their food. The examples of it are frog, lizard, fish, and snake





Tertiary consumers: Wild animals like tiger, lion, and fox feed on the animals and they are called as carnivores.

Omnivores: Human beings are classified as omnivores and they feed on plants and animals.



DECOMPOSERS:

- Decomposers feed on the dead b

convert them back as nutrients into the soil.

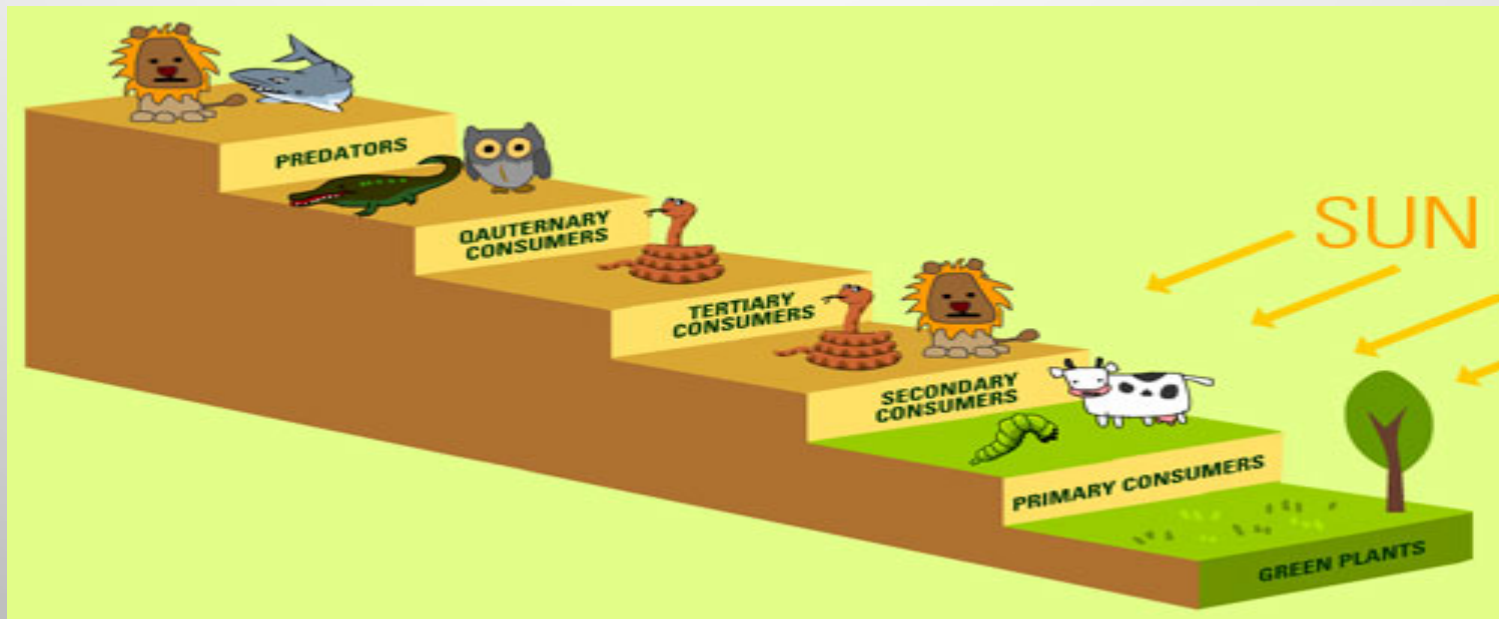
- Termites, ants and some other bacteria are called as decomposers.
- Animals such as frog, dog, wolf, and eagles are termed as decomposers
- The decomposers not only act as scavengers to clean the dead bodies 1

also serves as parasites, participate to clean the ecological cycles.

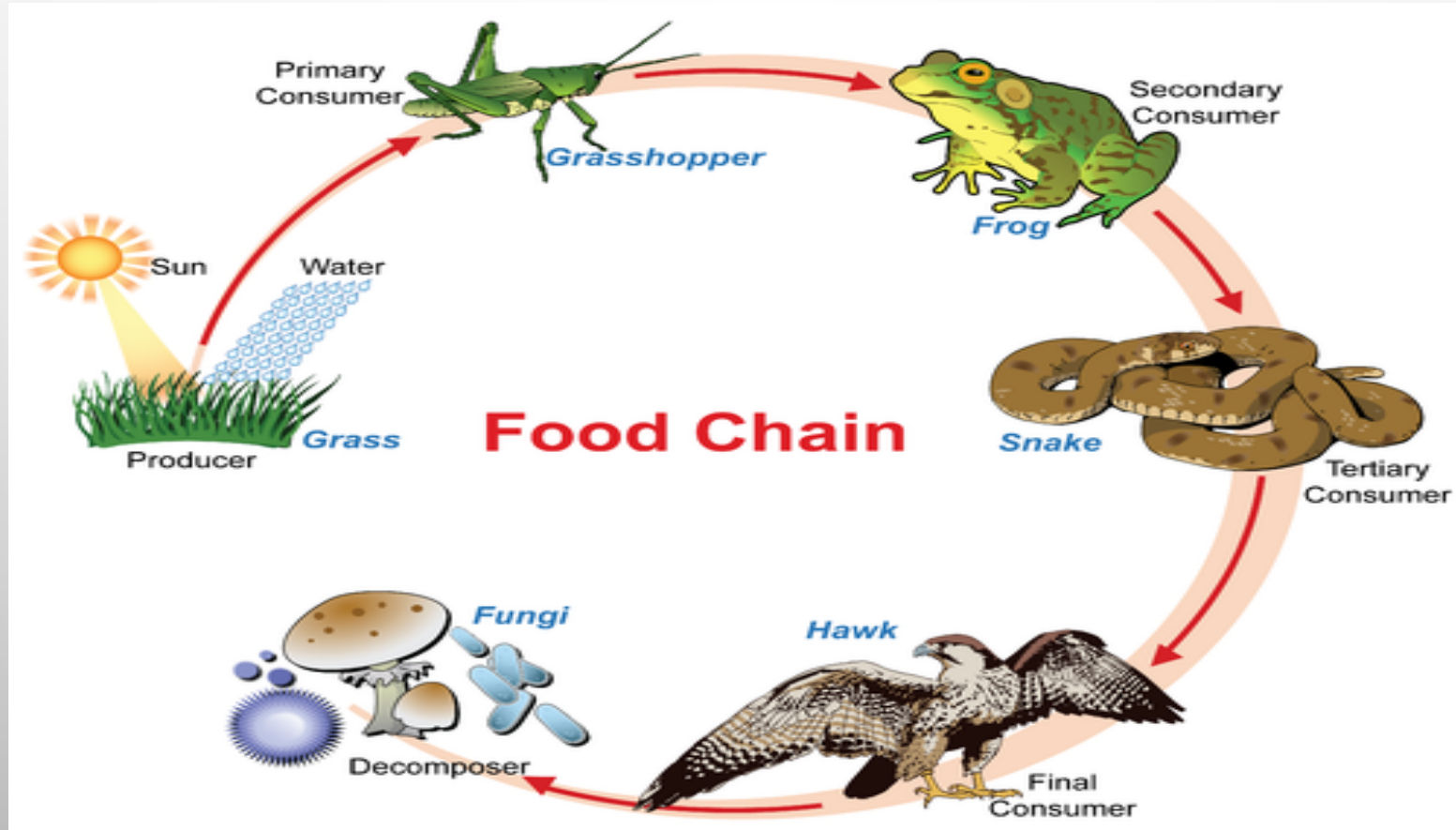


TROPHIC LEVELS, FOOD CHAIN AND FOOD WEB

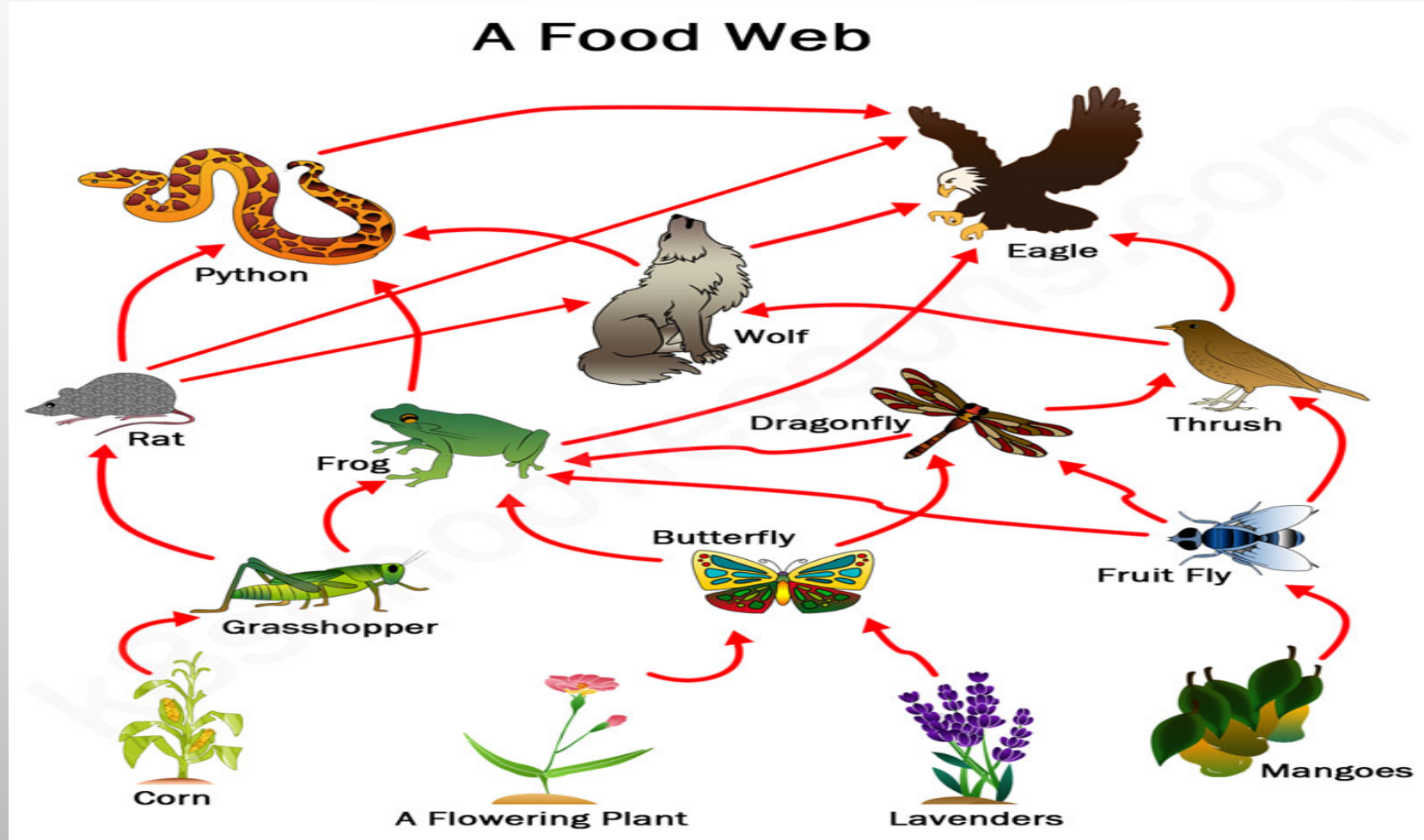
- The nutritive levels in a food chain are known as **trophic levels**. The organisms in the trophic levels of the food chain are categorized based on their feeding patterns.
- A trophic level is composed of organisms that make a living in the same way, that is they are all **primary producers** (plants), **primary consumers** (herbivores) or **secondary consumers** (carnivores).




FOOD CHAIN: Shows that how matter and energy moves through an ecosystem.



FOOD WEB: Show all possible feeding relationship in a community at each trophic level. It represents a network of interconnected food chains.





Thank you