

**INTERDEPENDENCE IN LIVING BEINGS**  
**PLANTS AND ANIMALS**  
**DEPENDENCE OF PLANTS ON ANIMALS**

Plants depend on animals for several basic needs:

- Animals breathe out carbon di oxide which is used by plants to prepare food by the process of photosynthesis.
- Bees and insects pollinate flowers, thus help in reproduction and production of fruits and seeds.
- Animals help in dispersal of fruits and seeds.
- Excreta of animals provide nutrients to plants.
- Animals on dying get decomposed by micro-organisms, which thus add nutrients to the soil. These nutrients are used by plants for growth and survival.
- Earthworms aerate the soil so that the roots of plants can better obtain oxygen.

**DEPENDENCE OF ANIMALS ON PLANTS**

**Animals depend on plants for their following needs:**

- Animals depend directly or indirectly on plants for their food.
- Trees provide shade and shelter to animals such as monkeys, squirrels, birds and insects.
- Humans use plants for fuel.
- Plants provide us with cotton, jute, flax, lac, oils etc to make clothes, dyes and medicines.
- Plants maintain the required composition of carbon dioxide and oxygen on the earth.
- Thus we find that plants and animals are dependent on each other.

**GROUPS OF LIVING BEINGS**

There are two main groups of living organism – PRODUCERS and CONSUMERS.

**PRODUCERS:**

The living organisms that prepare their own food are called Producers. All green plants are producer as they make their own food, by the process of photosynthesis. They are also called Autotrophs.

**CONSUMERS:**

Many living organisms cannot produce their own food. They depend on plants and other living organisms for their food. They are called Consumers.

**Consumers can further be classified into the following sub-categories.**

**Herbivores:**

Animals that eat only plants are called Herbivores.

Example: rabbits, cows, deer etc

They are called Primary Consumers

### Carnivores:

Animals that eat only flesh of other animals are called Carnivores.

Example: lions, tiger wolves etc

### Omnivores:

Animals that eat both plants and animals are called Omnivores.

Example: Human beings, rats, bear etc.

Carnivores and Omnivores are called Secondary consumers.

### Scavengers:

Animals that eat the remains of dead animals are called Scavengers.

Example: hyenas, vultures, termites etc

### Decomposers:

Some living things are so tiny they cannot be seen with the naked eye.

They are called Microorganism. They decompose dead and decaying matter of plants and animals into nutrients for plant. So they are called Decomposers.

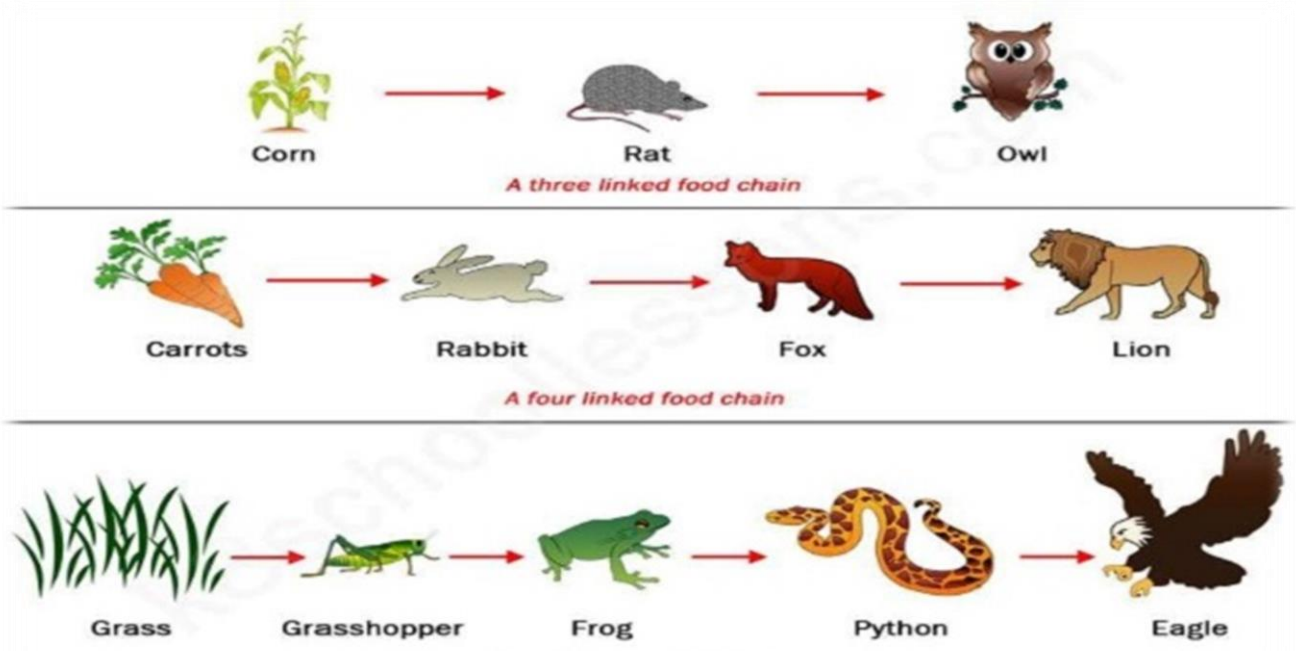
Example: bacteria, fungi

By consuming dead plants and animals scavengers and decomposers help in keeping the environment clean.

### FOOD CHAIN:

The sequence of who eats who in nature for obtaining nutrition is called a food chain.

A food chain always begins with plants, after plants the next organisms are herbivores, followed by carnivores, at the end of the chain are scavengers and decomposers.



### BALANCE IN NATURE

A food chain maintains balance in nature. A balance between the number of plants and animals at a place is very important for the survival of all living beings. Hence nature maintains balance in all types of environment.

## **REASONS FOR IMBALANCE IN NATURE**

**In fulfilling our basic needs, we human beings have been very careless towards nature and the environment. We are responsible for the imbalance in nature or manmade disasters**

- **DEFORESTATION**
- **POLLUTION**
- **HUNTING**
- **FOREST FIRE**

### **Natural disasters:**

- **Earthquakes**
- **Volcanoes**
- **Floods**

**Draw, colour and label to show how a simple food chain.**

**Draw and colour one producer, a primary consumer, a secondary consumer, a scavenger and a decomposer in your science copy.**