

What is Ecology??

- **The study of interactions that take place between organisms and their environment.**
- **It explains how living organisms affect each other and the world they live in.**

The Nonliving Environment:-

- Abiotic factors- the nonliving parts of an organism's environment.
- Examples include air currents, temperature, moisture, light, and soil.
- Abiotic factors affect an organism's life.

The living environment:-

- Biotic factors- all the living organisms that inhabit an environment.
- All organisms depend on others directly or indirectly for food, shelter, reproduction, or protection.

Levels of Organization:-

The first level of organization: (Organism)

An individual living thing that is made of cells, uses energy, reproduces, responds, grows, and develops

2nd level of organization: (Population)

A group of organisms, all of the same species, which interbreed and live in the same place at the same time.

3rd level of organization: (Biological Community)

All the populations of different species that live in the same place at the same time.

4th level of organization: (Ecosystem)

Populations of plants and animals that interact with each other in a given area with the abiotic components of that area. (terrestrial or aquatic)

5th level of organization: (Biosphere)

The portion of Earth that supports life.

The biosphere:

- Life is found in air, on land, and in fresh and salt water.
- The BIOSPHERE is the portion of Earth that supports living things.

