

General Introduction:

Terminology is the discipline that deals with scientific or technical vocabularies or terms. Its purpose is not only to study how sciences and technologies designate objects and phenomena but also to carry out the identification, organization, and management of terms, particularly in the form of dictionaries and databases.

In our case, it concerns biology or the science of living organisms, which encompasses a part of the natural sciences and the natural history of living beings. This includes **animals** or **zoology**, and **plants** or **phytology for vegetation**. It also involves **cytology** for cell function, **molecular biology** that intersects **with genetics and biochemistry**, developmental biology of living beings, marine biology concerning aquatic environments, **physiology** or the examination of the functions of living beings, **genetics** or the study of DNA, and **microbiology**, which specifically deals with microorganisms.

Here are some terms used in biology:

1. **Biology:** The scientific study of life and living organisms, including their structure, function, growth, evolution, distribution, and taxonomy.
2. **Organism:** An individual living being, composed of one or more cells, capable of growth, reproduction, and responding to stimuli.
3. **Cell:** The fundamental unit of life, the basic structural and functional unit of all living organisms.
4. **Species:** A group of individuals that can interbreed and produce fertile offspring in a natural setting.
5. **DNA (Deoxyribonucleic Acid):** A molecule that carries genetic instructions for the growth, development, functioning, and reproduction of all known living organisms and many viruses.
6. **Mitochondria:** Double-membraned organelles found in eukaryotic cells, responsible for energy production through cellular respiration.
7. **Photosynthesis:** The process by which plants and other organisms convert light energy into chemical energy in the form of glucose.
8. **A tissue:** A tissue is a set of similar cells with the same origin and participating in the same function.
9. **Histology:** A science (a medical specialty) studies tissues.
10. **Cytology:** A science studies the cell.

-Cytology, often referred to as cell biology, is the branch of biology that focuses on the study of cells and their structure, function, and interactions within organisms. It encompasses the examination of cells at the microscopic level and the understanding of their physiological and biochemical processes.

- 11. Herbivore:** An herbivore is an animal that primarily feeds on plants and plant-based substances.
- 12. Pedology:** is a branch of geology and soil science that studies the formation, classification, distribution, and evolution of soils on the Earth's surface. It focuses on the examination of the physical, chemical, and biological properties of soils, as well as their relationship with climate, vegetation, topography, and time.
- 13. Geology:** is the scientific study of the Earth's solid materials, including rocks, minerals, landforms, and the processes that shape them. It examines the composition, structure, physical properties, and history of the Earth, as well as the processes that have shaped it over millions of years.
- 14. Plant biology:** is the study of living organisms within the plant kingdom. Its objective is to understand and analyze plant life.
- 15. Parasitology:** The study of parasites and the diseases they cause in humans, animals and plants.
- 16. Animal biology:** This is the part of biology that deals specifically with animals.
- 17. Biophysics:** This is a discipline at the interface of physics and biology, where tools for observing physical phenomena are applied to biological molecules.
- 18. Biochemistry:** This is the scientific discipline that studies the chemical reactions occurring in living organisms, and therefore in cells.
- 19. Microbiology:** It is a sub-discipline of biology dedicated to the study of microorganisms.
- 20. Microorganism:** A microscopic organism, such as bacteria, viruses, fungi, or protozoa.
- 21. Immunology:** It is the branch of biology that deals with the study of the immune system.
- 22. Genetics:** It is a sub-discipline of biology; it is the science that studies heredity and genes.
- 23. A mutation** is a change or alteration in the DNA sequence of an organism. This change can occur naturally or be induced by external factors such as radiation,

chemicals, or errors during DNA replication. Mutations can result in variations in traits, characteristics, or behaviors of an organism.

24. Eukaryote (adjective): This adjective describes cells that possess a nucleus enclosed by a nuclear envelope.

25. Prokaryote: This adjective describes a unicellular living organism whose cellular structure does not contain a nucleus.

26. A protein: A biological macromolecule composed by the assembly of a large number of amino acids (typically beyond 100).

27. An enzyme: An enzyme is a biological catalyst (or a biocatalyst). This molecule is a protein that accelerates (up to millions of times) a chemical reaction that occurs within the organism, either intra- or extracellularly.

28. Anaerobic: "Anaerobic" is an adjective that describes an environment or process that occurs without the presence of oxygen.

29. Aerobic: is an adjective that describes an environment or process that requires or occurs in the presence of oxygen.

30. Morphology: The general appearance of a body or organ, including its shape and external structure.

31. An organ: is a distinct body structure composed of multiple tissues that work together to perform a specific function within an organism. Organs are typically identifiable by their unique shape, structure, and specific location within the body. These structures play crucial roles in maintaining the overall health and functionality of the organism.

32. An organelle: A specialized cellular component present in the cytoplasm of the cell. Each organelle performs a specific cellular function.

33. Metabolism: The sum of all chemical reactions that occur within an organism to maintain life.

34. Respiration: The process of breaking down organic molecules to release energy for cellular activities.

35. Digestion: The process of breaking down food into simpler substances that can be absorbed and used by cells.