DIVERSITY IN LIVING ORGANISMS

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BIOLOGY

Fungi:- these are heterotrophic eukaryotic organisms. They are saprophytes and thrive on decaying organic material. They have cell-walls made of chitin. Examples are yeast and mushrooms.

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Plantae:- these are multi-cellular eukaryotes with cell walls. They are autotrophs and used chlorophyll for photosynthesis. All plants are included in this group.

Animalia:- these includes all multi-cellular organisms. They are heterotrophs.

NOMENCLATURE:-

CLASS 9th

Naming a correct scientific name to an organism or a taxon is called **nomenclature**. It involves the principals governed by set rules formulated by internationals bodies so that a particular organism or taxon is known by its specific name throughout the world.

BINOMIAL NOMENCLATURE:-

According to the binomial system of nomenclature, the scientific name of an organism consist of two separate components – first on designates the **genus** (generic name) and the second one designates the species (specific name). For example, the scientific binomial name of human species is *Homo sapiens*, where first name *Homo* is generic and the second name *sapiens* is a specific. Homo sapiens are understood to mean humans all over the world. Since this system of naming organisms gives two names to an organism, it is known as a **binomial nomenclature**.

Various ranks used in classification (Hierarchy of classification)

In classification, the organisms that closely resemble one another are placed in a group. These groups are further placed in logg groups on the basis of close similarities. The larger groups are again placed in still larger grouping levels or ranks in classification are known as rategories. Each category has its specific name. There are seven major categories:

- Species
 Genus
 Family
 Order
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- 1. Species. Species is the lowest category regarded as basic unit classification. It is a group of similar individuals which resembles with each other in morphology, breed among themselves but not with others and probably descended from a common ancestor.
- 2. Genus. A genus is a group of closely resembling species having a common ancestry. A;; the species in a genus show similarities in broad features of their organization but differ in minor details.
- 3. Family. A family represents a larger group of closely related genera. It is composed of one or more genera.
- 4. Oder. An order is a group of closely related families.
- 5. Class. A class is a group of related orders.
- 6. Phylum/Division. Phylum (in case of animals) or Division (in case of plants) is a group of related classes.
- 7. Kingdom. Kingdom is the highest category in biological classification. It is group of phyla (in case of animals) or divisions (in case of plants).

Mainly, the following rules apply to scientific names:

They were initially framed by Linnzeus. And were revised in 9th and 20th century through international code of Botinical Nomenclature (ICBN) and international code of Zoological nomenclature (ICZN). They are as followes: