THE LIVING WORLD

Topic 1: Diversity in the Living World, Identification & Nomenclature

1. Diversity in the Living World

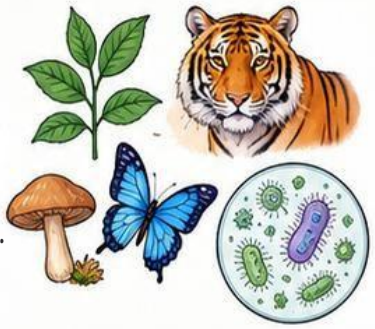
- The living world shows an enormous diversity of organisms occurring in different habitats such as:
  - Cold mountains
  - Forests
  - Oceans
  - Freshwater lakes
  - Deserts
  - Hot springs
- Living organisms may be visible to the naked eye or microscopic.
- As the area explored increases, the variety of organisms observed also increases.

Organisms in Different Habitats



Species and Biodiversity

- Each different kind of plant, animal or other organism represents a species.
- The number of known and described species ranges between approximately 1.7 1.8 million.
- This variety of organisms present on Earth is referred to as biodiversity.
- New organisms continue to be identified as new as well as previously
- explored areas are studied further.



Key Idea:

The enormous diversity of living organisms makes their proper identification, naming and scientific study necessary.

2. Need for Scientific Naming

- Different organisms are commonly known by local names.



- Mango
- Aam
- Maanga
- Mavinakayi
- Mambazham
- Amba
- etc.

→ Same organism but different names in different regions

Problem with Local Names

- The same organism may have:
- Different names in different regions.
- Different names even within the same country.
- Therefore, local names can create confusion when scientists communicate about a particular organism.

Solution Standardised Naming

- A particular organism should be known by the same scientific name throughout the world.
- This standardised process of naming organisms is called Nomenclature.



One scientific name across the world

Nomenclature the process of standardising the naming of living organisms.

- Scientific naming is meaningful only when the organism has first been correctly recognised and described.

THE LIVING WORLD

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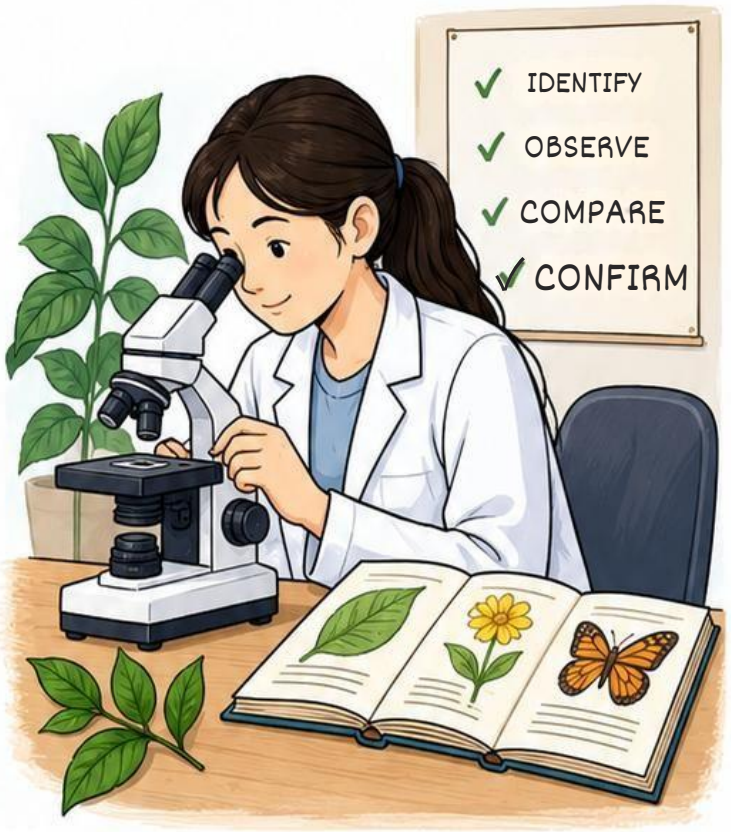
3. Identification

Identification

- Identification means correctly recognising an organism and determiningwhich organism a particular name refers to.

Relationship

Correct description of organism
↓
Identification
↓
Correct scientific name
↓
Universal communication among biologists



- Thus, identification is essential before proper nomenclature can be carried out.

---

4. International Codes of Nomenclature

- Scientists have established universally accepted procedures for assigning scientific names to organisms.

For Plants

- Scientific names are governed by:

International Code for Botanical Nomenclature (ICBN)



For Animals

- Scientific names are governed by:

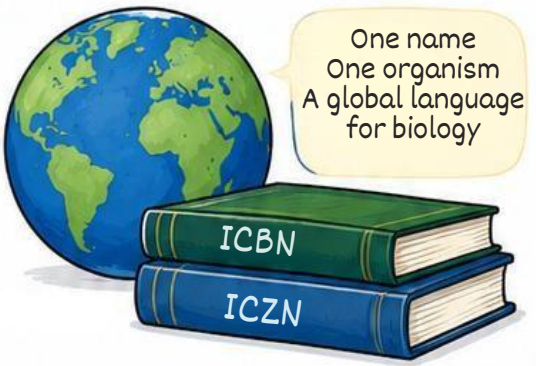
International Code of Zoological Nomenclature (ICZN)



Importance of International Codes

Scientific naming ensures that:

- Each organism has a single accepted scientific name.
- Scientists throughout the world can refer to the same organism without confusion.
- The scientific name is not already being used for another known organism.



THE LIVING WORLD

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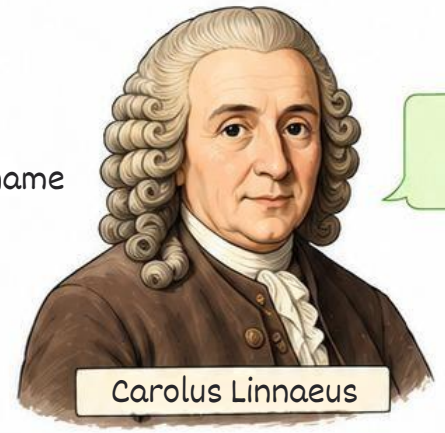
5. Binomial Nomenclature

Definition

- The system of giving every organism a scientific name consisting of two components is called:

Binomial Nomenclature

- This system was given by Carolus Linnaeus.



The Two Components

Scientific Name Generic Name + Specific Epithet

Example

- Mangifera indica

Component	Meaning
Mangifera	Genus/Generic name
indica	Specific epithet


Mangifera indica

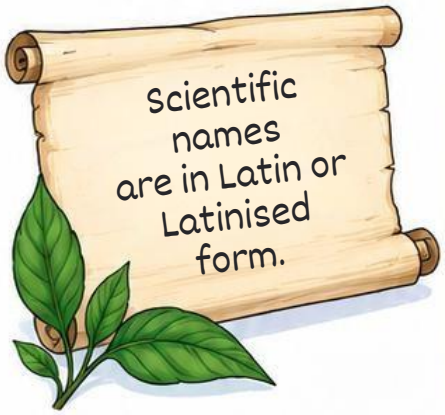
Remember:

A scientific name consists of two words, but the first word represents the genus, while the second represents the specific epithet.

6. Rules of Binomial Nomenclature

Rule 1: Latin Form

- Biological names are generally:
  - Written in Latin
  - Or Latinised
  - Their original source or language does not matter.



Rule 2: Two Components

- The biological name contains:

First word → Genus

Second word → Specific epithet

Thus, a scientific name has two components.



Rule 3: Writing Style

- When printed:
  Biological names are written in italics.
- When handwritten:
  The two words are separately underlined.

Example

- Printed
  Mangifera indica
- Handwritten representation:



Mangifera indica
(Each word separately underlined.)

THE LIVING WORLD

Topic 1: Diversity in the Living World, Identification & Nomenclature

Rule 4: Capitalisation

- The generic name begins with a capital letter.
- The specific epithet begins with a small letter.

Correct:	Incorrect:
Mangifera indica ✓	Mangifera Indica ✗



Mangifera indica

"Genus starts with Capital letter, Specific epithet starts with small letter."

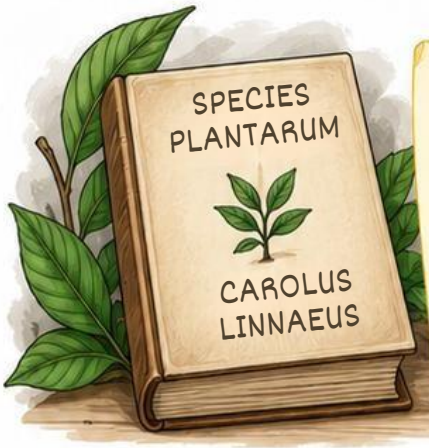
Rule 5: Author's Name

- The abbreviated name of the author who first described the species may appear after the specific epithet.

Example:

Mangifera indica Linn.

- Here, Linn. indicates that the species was firstdescribed by Linnaeus.



"Author's name acknowledges the scientist who first described the species."

EXAM POINTS / REMEMBER

Nomenclature

➧ Standardised naming of living organisms.

Identification

➧ Correct recognition of an organism and determination of the organism to which a name belongs.

Binomial Nomenclature

➧ Scientific naming system in which every organism is given a name consisting of two components.

Format

➧ Genus + Specific epithet

Writing Rules

Feature	Genus	Specific Epithet
Position	First word	Second word
First letter	Capital	Small
Printed form	Italics	Italics
Handwritten form	Separately underlined	Separately underlined

Important Example

- Mangifera indica
→ Mangifera → Genus
→ indica → Specific epithet



Mangifera indica

Author Citation Example

- Mangifera indica Linn.

Same name. Same organism. Same understanding. That's the power of scientific nomenclature!

One name for a global language in biology!

THE LIVING WORLD

Topic 2: Classification, Taxa, Taxonomy & Systematics

1. Need for Classification

- There are millions of living organisms, and it is practically impossible to study each organism separately.
- Therefore, organisms are arranged into convenient groups or categories based on their observable characteristics.

Classification

Classification is the process of grouping organisms into convenient categories based on certain observable characters.

For example:

Living organisms
↓
Plants Animals
↓
Further groups such as mammals, insects, dogs, cats, wheat, rice, etc.

When we use the name of a particular group, we associate certain characteristic features with the organisms belonging to that group.

For example:

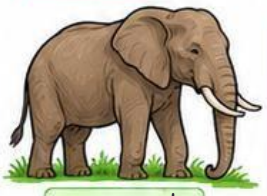


Dog

- Dog → we associate the organism with characters of dogs, not cats.



Cat



Mammals

- Mammals → animals with features such as external ears and body hair.



Wheat

- Wheat → wheat plants, not rice or another plant.



Rice

Thus, grouping organisms makes their study easier, systematic and meaningful.

2. Taxon and Taxa

The scientific term used for a category of organisms in classification is:

Taxon

- Plural: **Taxa**

Examples of Taxa

- Plants
- Animals
- Mammals
- Dogs
- Wheat

These are all examples of taxa.



- An important point is that these taxa do not necessarily represent the same level of classification.

For example:

Animals → Mammals → Dogs

Here:

- Animals
- Mammals
- Dogs

} are all taxa, but they represent different levels of classification.

Key Concept

Taxon a unit or category of classification at any particular level.

THE LIVING WORLD

Topic 2: Classification, Taxa, Taxonomy & Systematics

3. Classification and Taxonomy

- Based on similarities and differences in their characteristics, organisms are placed into different groups or taxa.

Taxonomy

Taxonomy is the process of classifying living organisms into different taxa.

- Modern taxonomic studies consider several kinds of information.

Basis of Modern Taxonomic Studies

- External structure
- Internal structure
- Cell structure
- Developmental process
- Ecological information



Thus, modern taxonomy does not depend on only one characteristic.

4. Basic Processes of Taxonomy

- The major processes forming the basis of taxonomy are:

Characterisation → Identification → Classification → Nomenclature

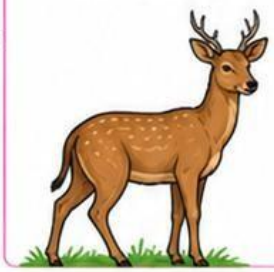
1. Characterisation

Study of the characteristics or features of an organism.



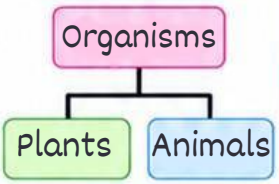
2. Identification

Correct recognition of the organism.



3. Classification

Placing the organism into an appropriate group or taxon.



4. Nomenclature

Assigning the correct scientific name to the organism.



These four processes together form the basic foundation of taxonomy.

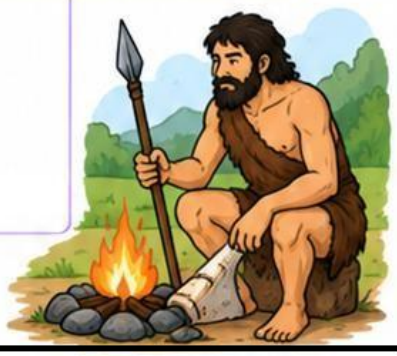
5. Early Basis of Classification

- Human beings have always been interested in knowing different kinds of organisms.
- In early times, classification was mainly related to human needs.

Thus, the earliest classifications were largely based on the utility of organisms to humans.

Early Classification Was Based Mainly on:

- Food
- Clothing
- Shelter
- Other uses of organisms



THE LIVING WORLD

Topic 2: Classification, Taxa, Taxonomy & Systematics

6. Systematics

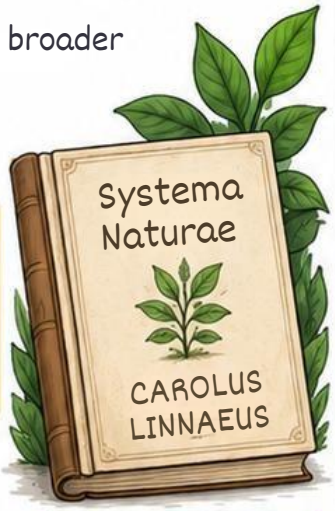
- Human beings are interested not only in the diversity of organisms but also in understanding the relationships among them.
- The branch of study dealing with this broader understanding is called:

Systematics

The term systematics is derived from the Latin word:

Systema = systematic arrangement of organisms

- Carolus Linnaeus used Systema Naturae as the title of his publication.



Systema Naturae by Carolus Linnaeus

Scope of Systematics

The scope of systematics was enlarged to include:

- Identification
- Nomenclature
- Classification
- Evolutionary relationships among organisms

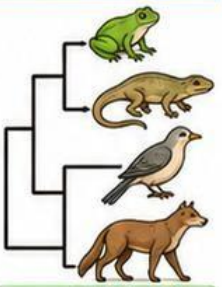
Most Important Point

Systematics takes into account the evolutionary relationships between organisms.

Thus, systematics provides a broader understanding of organisms and their relationships than merely grouping them.

7. TAXONOMY vs SYSTEMATICS

Basis	Taxonomy	Systematics
Main Focus	Deals with the classification of organisms into different taxa.	Deals with the diversity of organisms and their relationships.
Processes Included	Its basic processes include characterisation, identification, classification and nomenclature.	Includes identification, nomenclatureand classification along with evolutionary relationships.
Scope	Focuses on the organisation and classification of organisms.	Has a broader scope and considersevolutionary relationships amongorganisms.



Showing evolutionary relationships



Systematics looks beyond grouping - it studies relationships among organisms.

EXAM POINTS / REMEMBER

- **Classification** → Grouping organisms into convenient categories based on observable characters.
- **Taxon** → A unit or category of classification.
- **Taxa** → Plural of taxon.
- **Taxonomy** → Study/process concerned with the classificationof organisms into different taxa.
- **Basic Processes of Taxonomy** → Characterisation → Identification → Classification → Nomenclature
- **Systematics** → A broader branch dealing with the diversity of organisms, including their identification, nomenclature, classification and evolutionary relationships.
- **Most Important Conceptual Difference** → Taxonomy focuses on classification, whereas systematics also considers evolutionary relationships among organisms.

From names to relationships - that's the power of systematics!

Classification tells us "what" organisms are, Systematics tells us "how" they are related.

THE LIVING WORLD

Topic 3: Taxonomic Categories & Taxonomic Hierarchy

1. Taxonomic Categories

- Classification is not a single-step process.
- It involves a number of successive steps, where

  Each step represents a particular rank or category.

- Since every category forms a part of the overall taxonomic arrangement, it is called a:

  Taxonomic Category

- All the taxonomic categories arranged in a definite sequence together constitute the:

  Taxonomic Hierarchy

Basic Relationship

Group → represents a → Category → Category denotes a → Rank → Each Rank/Taxon represents a → Unit of Classification

"Different organisms, (organised into categories for a better understanding of life."



Taxon (Plural: Taxa) = A unit of classification representing a particular taxonomic rank.

2. Taxonomic Groups Are Biological Entities

Consider the group **Insects.**

- Insects share certain common features, such as:

  Three pairs of jointed legs.

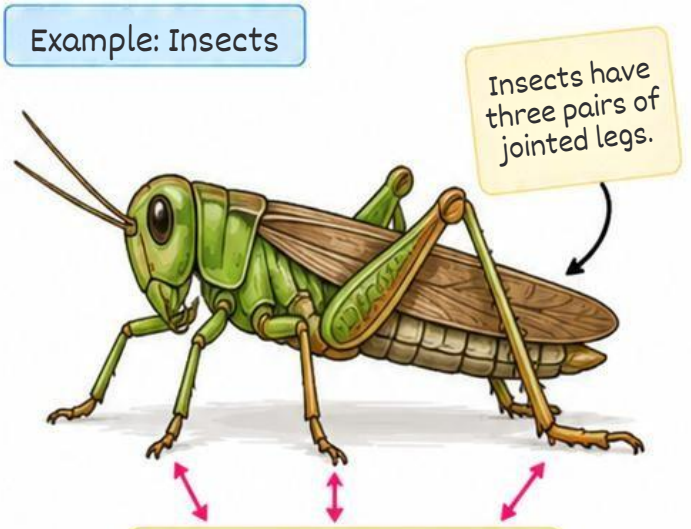
- Therefore, insects can be recognised as a distinct group of organisms and can be assigned a particular taxonomic rank or category.

Important Point

Taxonomic groups or categories are:

Distinct biological entities and not merely morphological aggregates.

Example: Insects



Common features help in recognising organisms as a distinct group.



THE LIVING WORLD

Topic 3: Taxonomic Categories & Taxonomic Hierarchy

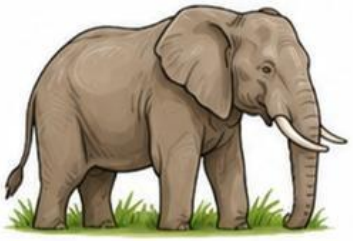
3. Major Taxonomic Categories

- Taxonomic studies of known organisms have resulted in the development of the following common categories:

Kingdom Phylum/Division → Class → Order Family → Genus → Species

Important Difference

Animals	Plants
Phylum	Division





Taxonomic Hierarchy

Descending Order	Ascending Order
Kingdom	Kingdom
Phylum / Division	Phylum/Division
Class	Class
Order	Order
Family	Family
Genus	Genus
Species	Species

IMPORTANT Species is the Lowest Taxonomic Category

All organisms belonging to both the:

- Plant Kingdom
- Animal Kingdom

} have species as the lowest taxonomic category.

4. Basis of Placing an Organism in Taxonomic Categories

Before placing an organism into different categories, it is necessary to have knowledge of the:

Characters of the organism

This helps in identifying:

- Similarities among organisms
- Dissimilarities among organisms
- Similarities within individuals of the same kind
- Differences between closely related organisms

Knowledge of characters of the organism
↓
Comparison of similarities and dissimilarities
↓
Proper taxonomic placement

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Topic 3: Taxonomic Categories & Taxonomic Hierarchy

5. SPECIES

Definition

- A group of individual organisms having fundamental similarities is considered a:

Species

- One species should be distinguishable from another closely related species on the basis of:

Distinct morphological differences.



Mangifera indica (Mango)



Solanum tuberosum (Potato)



Panthera leo (Lion)

Examples

Scientific Name	Genus	Specific Epithet
Mangifera indica	Mangifera	indica
Solanum tuberosum	Solanum	tuberosum
Panthera leo	Panthera	leo

Important Point

- In these examples:
- indica, tuberosum, leo represent the specific epithets.
- Whereas, Mangifera, Solanum, Panthera represent the genera, which are a higher taxonomic category than species.

6. Relationship Between Species and Genus

- A genus may contain one or more than one specific epithets representing different organisms.
- The organisms placed within the same genus possess morphological similarities.

Examples

Genus Panthera

Includes species such as:

- Panthera leo → Lion
- Panthera tigris → Tiger



Panthera leo (Lion)



Panthera tigris (Tiger)

Genus Solanum

Includes species such as:

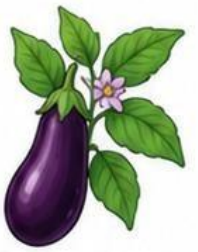
- Solanum tuberosum Potato
- Solanum nigrum
- Solanum melongena



Solanum tuberosum (Potato)



Solanum nigrum



Solanum melongena (Brinjal)

Different species may belong to the same genus when they possess morphological similarities.

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Topic 3: Taxonomic Categories & Taxonomic Hierarchy

7. Human Species and Genus

Human beings belong to the:

- Species: sapiens
- Genus: Homo

Therefore, the scientific name of human beings is:

Homo sapiens



SPECIES → QUICK REVISION

Species Group of individual organisms having fundamental similarities and distinguishable from closely related species by distinct morphological differences.

Position in Hierarchy

Lowest Taxonomic Category

Relationship

Species
↓ groups into
Genus

8. GENUS

Definition

A genus comprises a group of related species which have more characters in common when compared with species belonging to other genera.

Therefore: Genera are aggregates of closely related species.

Examples

Example 1: Potato and Brinjal

- Potato and Brinjal are different species but both belong to:

Genus Solanum



Solanum tuberosum (Potato)



Solanum melongena (Brinjal)

Example 2: Panthera

- The following species belong to the same genus:
  - Panthera leo → Lion
  - Panthera pardus → Leopard
  - Panthera tigris → Tiger

All these species have several common features and belong to:

Genus - Panthera



Panthera leo (Lion)



Panthera pardus (Leopard)



Panthera tigris (Tiger)

Important Contrast

Genus Panthera
↕ Different from
Genus Felis

The genus Felis includes cats.



Felis catus (Cat)

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Topic 3: Taxonomic Categories & Taxonomic Hierarchy

SPECIES vs GENUS

Feature	Species	Genus
Position in hierarchy	Lowest taxonomic category	Higher than species
Meaning	Group of individuals with fundamental similarities	Group of closely related species
Basis of distinction	Members are distinguished from closely related species by morphological differences	Species within a genus possess more common characters
Example	Panthera leo	Panthera

9. FAMILY

Definition

A family consists of a group of related genera. The genera included within a family have:

Fewer similarities compared with the similarities among species of the same genus.

Basis of Family Classification in Plants

Plant families are characterised on the basis of:

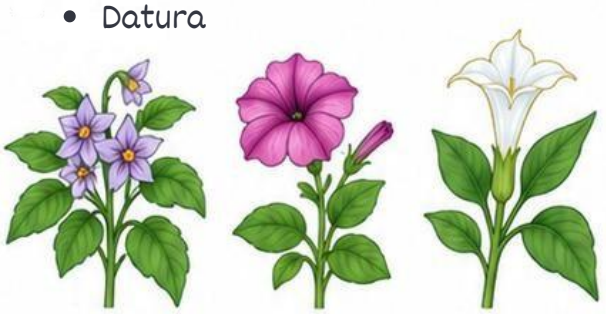
- Vegetative features
- Reproductive features

Examples in Plants

The following genera are placed in:

Family → Solanaceae

- Solanum
- Petunia
- Datura



Solanum Petunia Datura

Examples in Animals

The genus Panthera including:

- Lion
- Tiger
- Leopard

is placed along with Felis → Cats in:

Family → Felidae



Lion (Panthera leo) Tiger (Panthera tigris) Leopard (Panthera pardus) Cat (Felis catus)

Another Example

Animal	Family
Cat	Felidae
Dog	Canidae

Although cats and dogs show certain similarities, they are placed in different families because of their differences.

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Topic 3: Taxonomic Categories & Taxonomic Hierarchy

GENUS vs FAMILY

Feature	Genus	Family
What it includes	Group of related species	Group of related genera
Common characters	Greater number of common characters	Fewer common characters
Example	Panthera	Felidae

10. ORDER

Definition

An order is an assemblage of families exhibiting a few similar characters.

Important Point

- Order is a higher taxonomic category.
- As we move higher from Species → Genus → Family → Order, the number of common characters generally decreases.
- The higher categories such as order are identified on the basis of:

Aggregates of characters.

Examples in Plants

The plant families:
- Convolvulaceae
- Solanaceae

are included in:

Order → Polymoniales



mainly on the basis of floral characters.

Example in Animals

Order → Carnivora

includes families such as:
- Felidae
- Canidae



FAMILY vs ORDER

Feature	Family	Order
What it includes	Group of related genera	Assemblage of related families
Common characters	More similarities among members	Fewer similarities among members
Example	Felidae	Carnivora

THE LIVING WORLD

Topic 3: Taxonomic Categories & Taxonomic Hierarchy

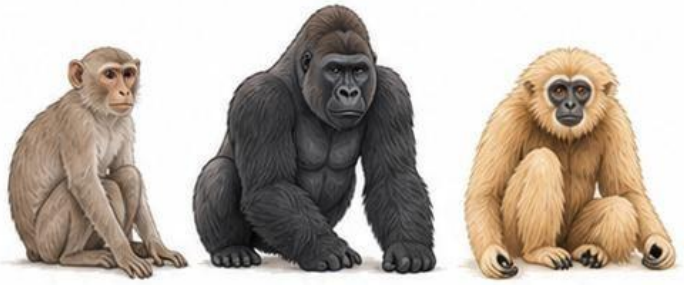
11. CLASS

Definition

A class includes related orders.

Example

Class → Mammalia



Monkey Gorilla Gibbon

Includes:

Order Primata	Order Carnivora
• Monkey • Gorilla • Gibbon	• Tiger • Cat • Dog

Thus, related orders are grouped together to form a class.



Tiger Cat Dog

Primata +Carnivora → Mammalia

Class Mammalia also includes other orders.

Related orders are grouped together to form a class.

12. PHYLUM

Definition

A phylum is a higher taxonomic category comprising related classes.

Example

Classes comprising animals such as:

- Fishes
- Amphibians
- Reptiles
- Birds
- Mammals

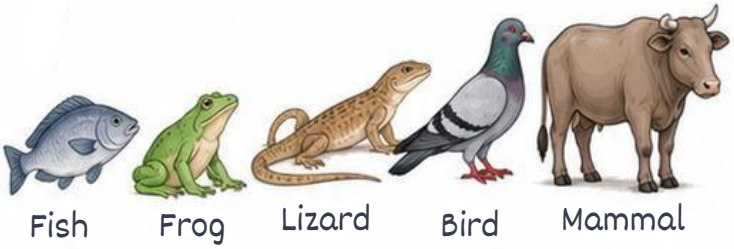
are placed in:

Phylum→ Chordata

Common Features of Chordates

The organisms included in Chordata possess common features such as:

- Presence of notochord
- Dorsal hollow neural system



Fish Frog Lizard Bird Mammal

Fishes, amphibians, reptiles, birds and mammals are placed in Phylum Chordata.

13. DIVISION

- In plants, the higher category corresponding to Phylum is called Division.
- Thus, classes with a few similar characters in plants are assigned to a higher category called Division.

Classes with a few similar characters in plants are assigned to a higher category called Division.

THE LIVING WORLD

Topic 3: Taxonomic Categories & Taxonomic Hierarchy

14. KINGDOM

Definition

The highest taxonomic category is:

Kingdom

Animal Kingdom

All animals belonging to various phyla are assigned to:

Kingdom Animalia



Animalia

Plant Kingdom

All plants belonging to various divisions are assigned to:

Kingdom Plantae



Plantae

COMPLETE TAXONOMIC HIERARCHY

Ascending Order

Species → Genus Family →> Order Class → Phylum/Division -> Kingdom

Basic Grouping Pattern

Individuals with fundamental similarities

↓

Species

↓ Closely related species form

Genus

↓ Related genera form

Family

↓ Related families form

Order

↓ Related orders form

Class

↓ Related classes form

Phylum / Division

↓ Various phyla/divisions form

Kingdom

Each higher category groups together units with fewer similar characters and broader similarities.

THE LIVING WORLD

Topic 3: Taxonomic Categories & Taxonomic Hierarchy

15. Changes in Common Characteristics Along the Hierarchy

As we move:

Species → Kingdom

Number of common characteristics:

↓ Decreases

Lower Taxa

- Lower the taxon, more are the characteristics shared by the members within that taxon.

Higher Taxa

- Higher the category, greater is the difficulty of determining relationships with other taxa at the same level.

Therefore:

Classification becomes more complex at higher taxonomic categories.

16. TAXONOMIC HIERARCHY - TABLE OF IMPORTANT EXAMPLES

Common Name	Biological Name	Genus	Family	Order	Class	Phylum/Division
Man	Homo sapiens	Homo	Hominidae	Primata	Mammalia	Chordata
Housefly	Musca domestica	Musca	Muscidae	Diptera	Insecta	Arthropoda
Mango	Mangifera indica	Mangifera	Anacardiaceae	Sapindales	Dicotyledonae	Angiospermae
Wheat	Triticum aestivum	Triticum	Poaceae	Poales	Monocotyledonae	Angiospermae

ULTRA-IMPORTANT EXAM POINTS

- Lowest Category → Species
- Highest Category → Kingdom
- Group of Related Species → Genus
- Group of Related Genera → Family
- Assemblage of Families → Order
- Group of Related Orders → Class
- Group of Related Classes → Phylum / Division
- Phylum → Used for animals.
- Division → Used for plants.

ONE-LINE HIERARCHY

Species → Genus → Family Order → Class → Phylum/Division → Kingdom

GOLDEN CONCEPT

As we move upward in the taxonomic hierarchy:

Number of common characters decreases, whereas the complexity of determining relationships increases.

THE LIVING WORLD

Topic 4: Chapter Synthesis & Complete Concept Revision

1. THE LIVING WORLD — CORE IDEA

- The living world is characterised by an enormous variety of organisms.
- Millions of plants and animals have already been:
  -Identified
  -Described
  -Studied
- However, a large number of organisms still remains unknown.
- Living organisms differ enormously in terms of:
  -Size
  -Colour
  -Habitat
  -Physiological features
  Morphological features
- Therefore, to study this vast diversity systematically, biologists need to determine the defining characteristics of organisms and organise them according to established principles.

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2. WHY ARE IDENTIFICATION, NOMENCLATURE AND CLASSIFICATION NECESSARY?

- The enormous diversity of organisms makes individual and unorganised study difficult.
- Therefore, biologists have evolved certain rules and principles for:

Identification + Nomenclature + Classification

- These processes make the study of organisms and their diversity systematic and scientifically meaningful.

THE LIVING WORLD

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3. TAXONOMY

The branch of knowledge dealing with:
- Identification
- Naming
- Classification

of organisms is called:

TAXONOMY

Importance of Taxonomic Studies

Taxonomic studies of different species of plants and animals are useful in areas such as:
- Agriculture
- Forestry
- Industry

They are also useful for understanding:

Bio-resources and their diversity.

4. BASIC PROCESSES OF TAXONOMY

The fundamental processes involved in taxonomy are:

Characterisation → Identification → Classification Nomenclature

Characterisation

Study of the characteristics of an organism.

↓

Identification

Correct recognition of the organism.

↓

Classification

Placement of organisms into appropriate groups or categories.

↓

Nomenclature

Assignment of the correct scientific or biological name.

5. INTERNATIONAL CODES

- The basic processes of taxonomy are carried out according to universally accepted international principles.
- Scientific names are assigned under internationally evolved codes.

For Plants	For Animals
International Code for Botanical Nomenclature (ICBN)	International Code of Zoological Nomenclature (ICZN)

The purpose is to ensure that:

- Each organism receives a correct scientific name.
- The same organism is recognised by the same name universally.
- A scientific name is not already used for another known organism.

THE LIVING WORLD

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6. SCIENTIFIC NAMING — BINOMIAL NOMENCLATURE

- Each organism is assigned a scientific or biological name consisting of:

Two Words

This is known as:

Binomial Nomenclature

Components

Generic Name + Specific Epithet

Example

Mangifera indica

- Mangifera → Genus Generic name
- indica → Specific epithet

7. CLASSIFICATION

- Every organism occupies a particular:

Place or position in the system of classification.

- Organisms are arranged into different categories or ranks based on:
  - -Resemblances
  - -Distinct differences
  - -Other relevant characteristics

8. TAXONOMIC CATEGORY / TAXON

- There are several categories or ranks in classification. These are called:

Taxonomic Categories or **Taxa**

- Singular: **Taxon**
- Plural: **Taxa**

- Each taxon represents a particular unit of classification.

9. TAXONOMIC HIERARCHY:

- All the taxonomic categories arranged in a definite sequence constitute the

Taxonomic Hierarchy

Complete Hierarchy in Ascending Order

Species → Genus Family → Order Class → Phylum/Division -> Kingdom

Important Points

Lowest Category	Highest Category	In Animals	In Plants
Species	Kingdom	Phylum	Division

THE LIVING WORLD

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10. RELATIONSHIP BETWEEN TAXONOMIC CATEGORIES

Species	Groups organisms having fundamental similarities.
↓	
Genus	Groups closely related species.
↓	
Family	Groups related genera.
↓	
Order	Groups related families.
↓	
Class	Groups related orders.
↓	
Phylum / Division	Groups related classes.
↓	
Kingdom	Groups organisms belonging to different phyla or divisions.

11. COMMON CHARACTERS AND TAXONOMIC LEVEL

As we move upward:

Species → Kingdom

the number of common characteristics among organisms generally:

DECREASES ↓

Lower Taxa

- Lower the taxon, greater are the characteristics shared by its members.

Higher Taxa

- Higher the category, fewer are the common characteristics shared by its members.

Also:

- The problem of determining relationships becomes more complex at higher taxonomic levels.

12. SYSTEMATICS

Systematics is a broader study dealing with:

- Identification
- Nomenclature
- Classification
- Evolutionary relationships among organisms

Thus, an important feature of systematics is that it takes into account:

Evolutionary Relationships

"Systematics links diversity with evolution."

"Classification organises, but systematics explains relationships."

THE LIVING WORLD

Topic 4: Chapter Synthesis & Complete Concept Revision

TAXONOMY vs SYSTEMATICS → FINAL REVISION

TAXONOMY	SYSTEMATICS
Deals with identification, nomenclature and classification.	Includes identification, nomenclature and classification along with evolutionary relationships.
Concerned with organising organisms into taxa.	Has a broader scope and studies relationships among organisms.
Basic processes include characterisation, identification, classification and nomenclature.	Takes evolutionary relationships into account.

CHAPTER IN ONE GLANCE

Living World	→	Enormous diversity of organisms.
Identification	→	Correct recognition of an organism.
Nomenclature	→	Standardised naming of organisms.
Binomial Nomenclature	—	Two-word scientific naming system.
Taxonomy	→	Branch dealing with identification, nomenclature and classification.
Taxon	→	Unit of classification.
Taxonomic Hierarchy	—	Arrangement of taxonomic categories in ranks.
Species	—	Lowest taxonomic category.
Kingdom	→	Highest taxonomic category.
Systematics	→	Includes identification, nomenclature, classification andevolutionary relationships.