

CHAPTER : 1 THE LIVING WORLD

Kingdom

Phylum

Class

Order

Family

Genus

Species

Homo sapiens

Member of the genus Homo with a high forehead and thin skull bones

Homo

Hominids with upright posture and large brains

Hominidae

Primates with relatively flat faces

Primates

Mammals with collar bones and grasping fingers

Mammalia

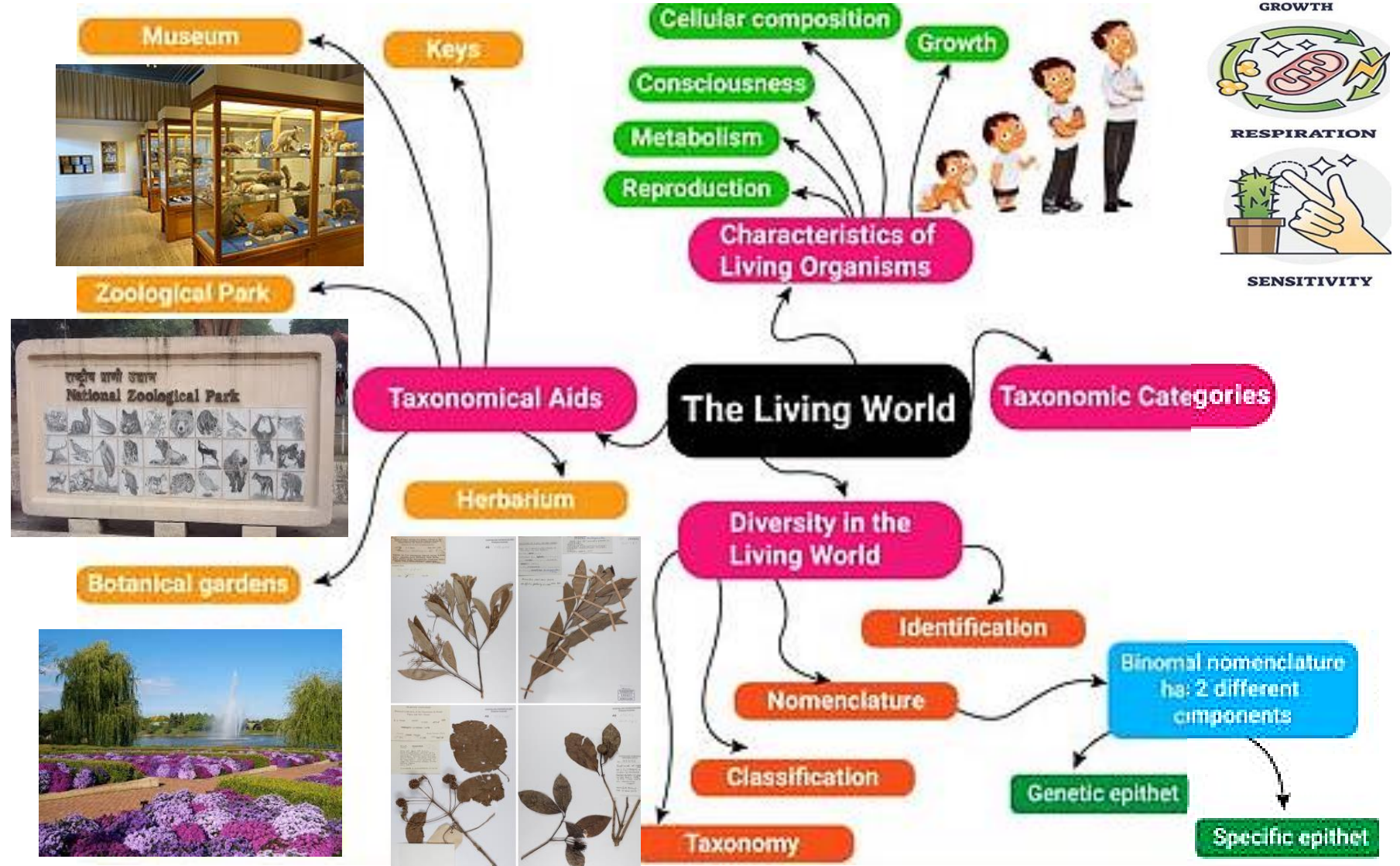
Chordates with fur or hair and milk glands

Chordata

Animals with a backbone

Animalia

Organisms able to move on their own



TAXONOMIC AIDS :

Specimens are collected from various sources and the information gathered is stored for studying biodiversity.

Herbarium - Collection of pressed, dried plants with their descriptions

E.g. Herbarium in Pisa



Zoological Park -

Enclosed places, where wild animals are publicly exhibited and protected



Key -

Refers to a set of alternate characters in such a manner that helps in the identification of plants and animals by selecting and eliminating the characters according to their presence or absence in the organism

Botanical Garden -

Garden or park maintained by government, where plants from various groups are grown for scientific study, conservation, public - education, aesthetics, and recreation
E.g. Indian Botanical Garden, Howrah



Museum - Collection of preserved plant and animal specimens, fossils for study and reference, presence of models and charts to depict historical objects



Others -

Written documents, as well as recorded descriptions like Flora, manuals, monographs and, catalogues

SYSTEMATICS :

2. Classification

Scientific method of grouping organisms in a hierarchical series of groups

Artificial Natural Phylogenetic

Need for Classification

- * Studying individual organism is not possible
- * Phylogenetic relationships can be studied through classification
- * New organisms can be put under a suitable group easily

1. Identification

Based on morphological and anatomical features, organism is given particular group and proper name

3. Nomenclature

Standardizing naming of organisms

- * Avoid confusion due to multiple local names
- * Name indicates the relationship of the species with other organisms placed in the same genus

Binomial Nomenclature was given by Carolus Linnaeus, details are mentioned in his book '**Systema Naturae**'

Mangifera indica
Genus name Species name

- * First letter of genus should be capital
- * First letter of species should be in lowercase
- * Printed in italics
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4. Taxonomy

Taxon - Group of similar and genetically related individuals having certain characters different from other groups