

Classification Notes

Living Things

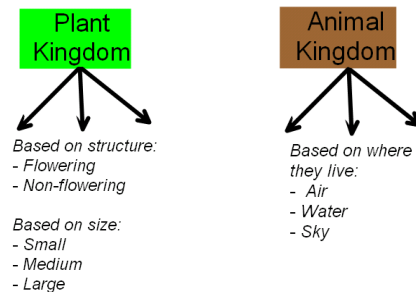
- Possibly 14,000,000 living organisms
- Scientists have identified 1,750,000
- Why would scientists want to organize and identify living things?

History

Classify - to group ideas, information or objects based on similarities

Aristotle - a Greek philosopher who, 2000 years ago, developed a system to classify living organisms

Aristotle divided things into two main kingdoms and then into smaller categories



What is wrong with Aristotle's classification system?

Taxonomy - the science of classifying and naming organism

Carolus Linnaeus - a Swedish doctor who created the system we use today.

His system was much more detailed. It classified organisms based on similarities in:

- body structure
- body systems
- size
- shape
- color
- method of obtaining food

Latin - his system gives a Latin name to all organisms

Why do you think he used latin?

Binomial Nomenclature - the name of Linnaeus' classification system. It means "two names".

Classification

Scientific name - the Latin name of an organism.

- it is always **two** names
- it is always written in **italics**
- the **first letter of the first name** is always **capitalized**
- the **first letter of the second name** is **NOT** capitalized

Genus - the first word in the scientific name

Species - the second word in the scientific name

Common name - the name we use for an organism

Let's Review



Scientific name: *Canis familiaris*

Common name: **Dog**



Scientific name: *Periplaneta americana*

Common name: **Roach**

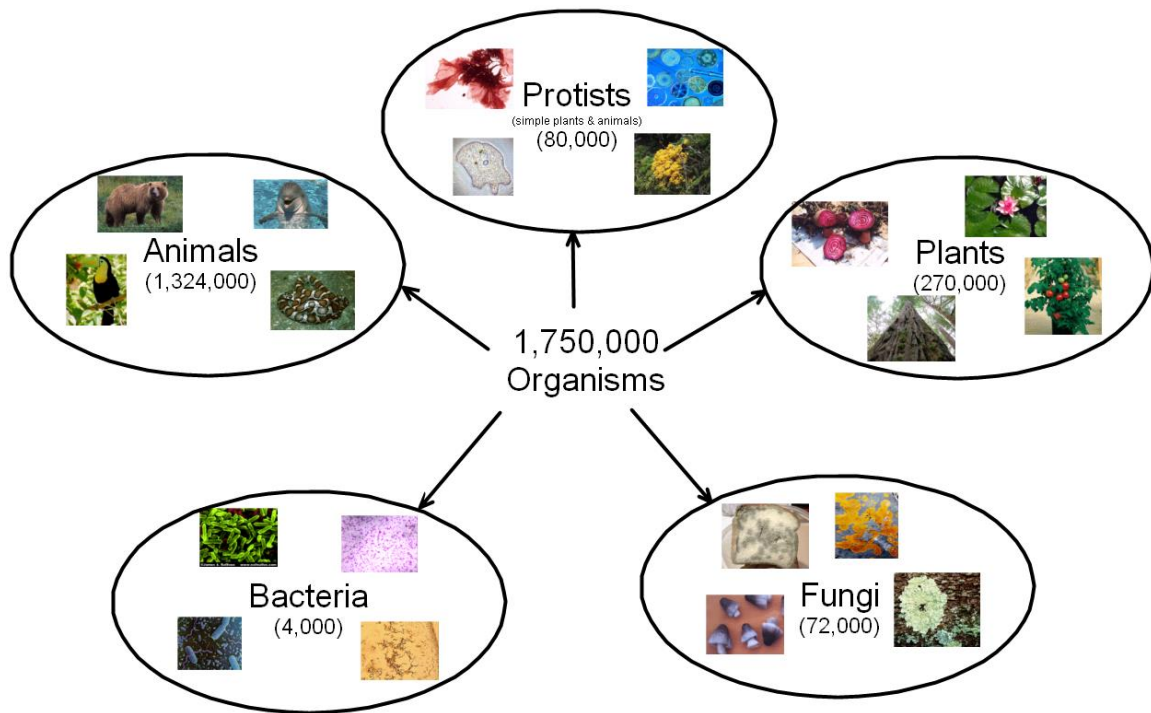


The great white shark's scientific name is "caracharodon carcharias". Write this name properly.

Kingdom - The largest grouping of organisms.

Six Kingdoms:

- Plantae (plant) Kingdom
- Animalia (animal) Kingdom
- Fungi Kingdom
- Protista (protist) Kingdom
- Archaeobacteria (bacteria) Kingdom
- Eubacteria (bacteria) Kingdom



Vocabulary

Prokaryotic - without a nucleus

Eukaryotic – with a nucleus

Multicellular – more than one cell

Unicellular – a single cell organism

Autotrophic – makes it's own food (from the sun)

Heterotrophic – must eat other organisms for food

Levels of Classification

Kingdom
 Phylum
 Class
 Order
 Family
 Genus
 Species

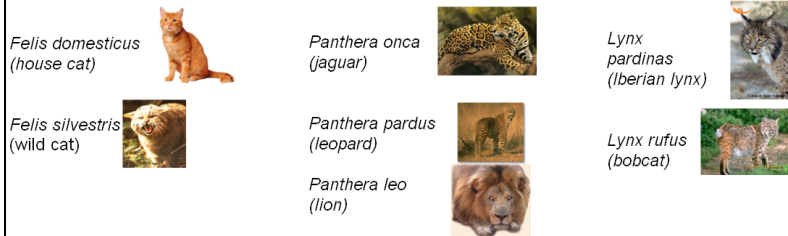
King Phillip Came Over For Grape Soda

Families

Scientists group organisms into families.

Families are a group of closely related organisms.

Example: The Felidae Family



Animal Kingdom to Phylum

