

CLASSIFICATION

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- For thousands of years, scientists have been putting living things into categories
- **Classification** is the process of putting items into groups based on their characteristics

CLASSIFICATION

- Most classification systems have levels
- Start very general
 - More specific
 - More specific
 - More specific
 - One item

STUDENTS IN VIRGINIA

- We could classify students in Virginia this way:

- Students in Virginia



- Students in Henrico County



- Students in Middle School

- Students at Wilder Middle School



- Students in the 6th grade

- Students in Mr. L's science class

- Specific student

More specific



CLASSIFYING LIFE

- 1753 Carl Linnaeus developed a system to name organisms
- Still in use today, but has been modified
- Starts with a very general category (**Domain**)
- Ends with a very specific category (**Species**)

DOMAINS

- There are 3 different domains
- Use cell characteristics to place organisms
- The 3 domains are:
 - **Bacteria**
 - **Archaea**
 - **Eukarya**

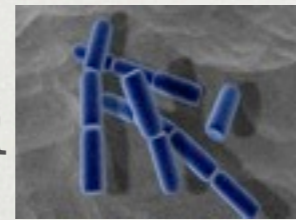
KINGDOM

- The next level is the Kingdom
- There are 6 Kingdoms

- **Bacteria**



- **Archaea**



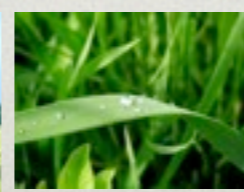
- **Protista**



- **Fungi**



- **Plants**



- **Animals**



NEXT LEVELS

- We will discuss more about these levels when we talk about each kingdom:
- **Phylum**
- **Class**
- **Order**
- **Family**
- **Genus**
- **Species (Most Specific)**

NAMING ORGANISMS

- Each organism has a unique **scientific name**
- This is the name used by scientists all around the world
- Scientific names are created using **Binomial nomenclature** (two names)
- Helps all organisms to have names in the same format

BINOMIAL NOMENCLATURE

- These are the guidelines for writing scientific names:
 - 1-Each name has 2 parts, the **genus** and the **species**
 - 2-Names are *italicized* or underlined when written
 - 3-First letter of genus name is capitalized
 - 4-Species name is not capitalized
 - Ex: *Homo sapien*, *Canis lupus*, *Felis catus*, *Escherichia coli*