Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Assignment:\_\_\_\_\_\_

**Classification Notes**

**Classification and Diversity**

**Taxonomy –**

**Aristotle**

* Used his system for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ years
* 1st to propose a system in 350 B.C.
* All living things in 2 groups
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Subdivided animals on the basis of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Subdivided plants on the basis of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (herbs, shrubs, trees)
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and the invention of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ helped locate new and different organisms
* Aristotle’s system was too \_\_\_\_\_\_\_\_\_\_\_\_!!

**Linnaeus**

* “Father of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_”
* Mid 1700’s
* Expanded to more kingdoms
* Created the scientific naming system
  + Binomial Nomenclature

*Video Notes:*

**Binomial Nomenclature –**

**The Five Kingdoms**

**Heterotroph –**

**Autotroph -**

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. Prokaryote, mostly \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ celled
   2. Ancestor to eukaryotes
   3. Often separated into 2 kingdoms nowadays
   4. Monera - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
      1. Extreme \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
      2. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   5. Monera - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
      1. EVERYWHERE
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. Eukaryotic
   2. “Catch all kingdom”
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ absorb food through walls
   2. Eukaryotic
   3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a type of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ through \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. Eukaryotic
   3. Multicellular
5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. Multicellular
   3. Eukaryotic

**Modern Taxonomy**

**Major Ways New Organisms Are Classified**

* Structural
* Chromosomes and \_\_\_\_\_\_\_\_\_\_ base sequences
* Reproduction
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ similarities (amino acids and proteins)
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Overview of Classification**

K

P

C

O

F

G

S

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Assignment: \_\_\_\_\_\_\_

**Human Classification and Naming**

**Classification of Humans**

**Kingdom - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* Eukaryotic
* Multicellular
* Heterotrophic
* No cell wall

**Phyla - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* Dorsal nerve chord – spinal cord
* Gill slits and tail at some time
* Notochord – backbone

**Class - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* Warm \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Nurse young
* \_\_\_\_\_\_\_\_\_\_
* Breath with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Well developed respiratory and circulatory systems

**Order - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* Strong grasping \_\_\_\_\_\_\_\_\_\_\_\_\_\_ with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_ instead of claws
* More developed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Family - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* Well developed \_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Walk \_\_\_\_\_\_\_\_\_\_\_

**Genus - \_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* Large well developed \_\_\_\_\_\_\_\_\_\_\_\_
* Ability to make \_\_\_\_\_\_\_\_\_\_

**Species - \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

* \_\_\_\_\_\_\_\_\_\_\_ walk
* Mostly \_\_\_\_\_\_\_\_\_\_\_\_\_
* Culture, oral and written language
* Young are helpless at birth
* Must be nurtured for years

**Scientific Names**

* ALWAYS written in \_\_\_\_\_\_\_\_\_\_\_
* Made of the Genus and the species names
  + Example: \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_
* Genus – larger category, common group that can \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ produce sterile \_\_\_\_\_\_\_\_\_\_\_\_
  + Wolf and dog
  + House cat and mountain lion
  + Cow and buffalo
  + Donkey and horse
* Species – A group of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or very similar organisms that can produce \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + German shepard, poodle, Labrador
  + Varieties of cats (Siamese, Persian)

**Rules**

* The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ comes before the \_\_\_\_\_\_\_\_\_\_\_\_\_\_
* The genus is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the species is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* There is a \_\_\_\_\_\_\_\_ between the two names
* Both parts of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ separately (may be in \_\_\_\_\_\_\_\_\_\_\_\_\_ but only when typed)
* Examples:

**Why scientific names?**

* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ common names
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ common names
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from common names