Factors of our Environment

Biotic are living factors include:
- Plants
- Animals ⎫ organisms
- Dead organisms & Waste Products
  (came from living at one time)

Abiotic are nonliving factors that affect other living things:
- Air
- Water
- Soil
- Rocks
- Light
- Temperature
- Climate

Name:_____
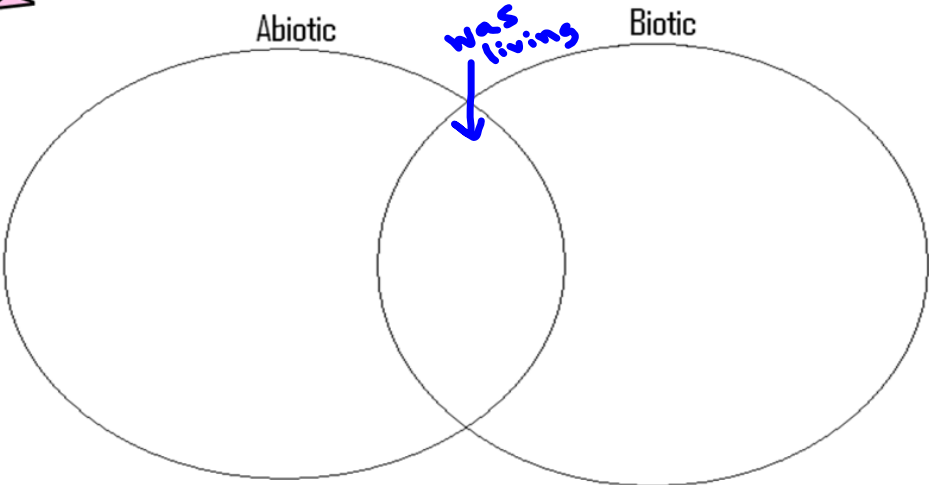Hour:_____

Abiotic vs Biotic Factors

What is the definition of an abotic factor?
_____

What is the definition of a biotic factor?
_____

Enter the items from the following list into a Venn diagram.
In the center place what contains both biotic and abiotic factors.

- Whale
- Mushroom   • Clouds   • Ocean
- Water   • Snail   • Tree
- Desert   • Steak   • Rocks
- Paper   • Athletes Foot   • Dirt
- Glass   • Salad   • Gold
- Temperature   • Mold   • Plastic
- Coral   • Grass   • Grapes
- Sand   • Hair   • Oxygen
                                      • Tundra

Abiotic   was living →   Biotic

Deeper level thinking...

All biotic and abiotic factors are interrelated. In nature you will find that if one factor is changed or removed, it impacts the availability of other resources within the system. Knowing this, give an example of what might happen given the following situations.
In the areas with the open space place either an **A for abiotic** or **B for biotic** to identify what the object is.

1. All of the rocks (____) are removed from a desert ecosystem, what would happen to the population of rock dwelling lizards (____) and in turn the animals which eat them.

   _____
   _____

2. A ten mile area of trees (____) is removed from the tropical rainforest. How will this affect the amount amount of water (____) and the amount of oxygen (____) in the area?

   _____
   _____
   _____

[Interactions Among Living and Non Living Things in Tropical Rainforests, Coral Reefs and Mangrove Sw - YouTube](#)
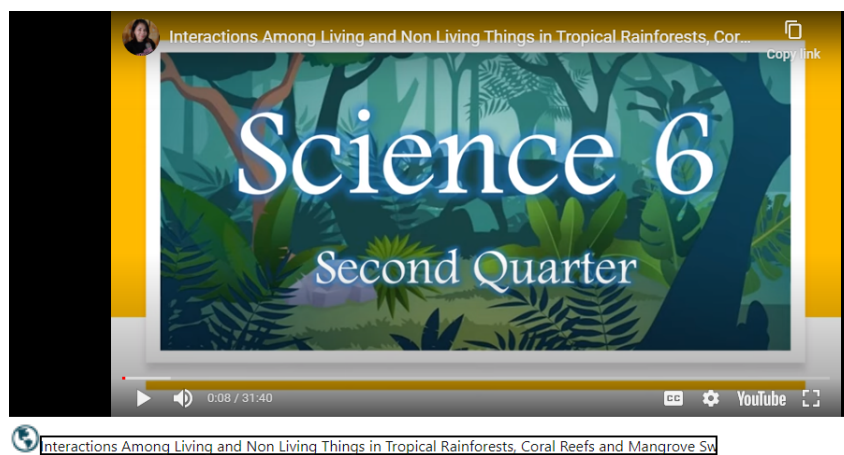

🌐 Interactions Among Living and Non Living Things in Tropical Rainforests, Coral Reefs and Mangrove Sw

Don't copy

Scientists classify organisms and assign each one a universally accepted name.

- Scientists classify because it is an **organized way to communicate** about the same organism all over the world. A classification system was developed because:
- Scientists once communicated about organisms by using common names.
- Common names can vary among languages and geographical regions.

Ex: Mountain lion, puma, cougar, and panther are all **common names for the same organism.** It would be confusing for scientists to communicate across the world about an organism only using common names.
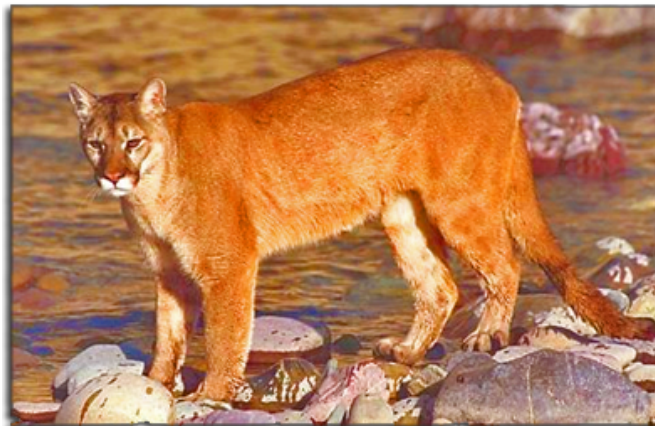

There are many *tree* frogs but **only one** with the scientific name *Agalychnis callidryas*.

Scientist over time has developed a naming system that they all under stand using binomial nomenclature

Early classification systems

- **Aristotle grouped everything into simple groups such as animal or plant**
- **Then later grouped animals according to how they moved, if they had live young or laid eggs, and so on...**
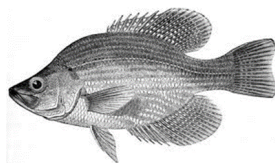
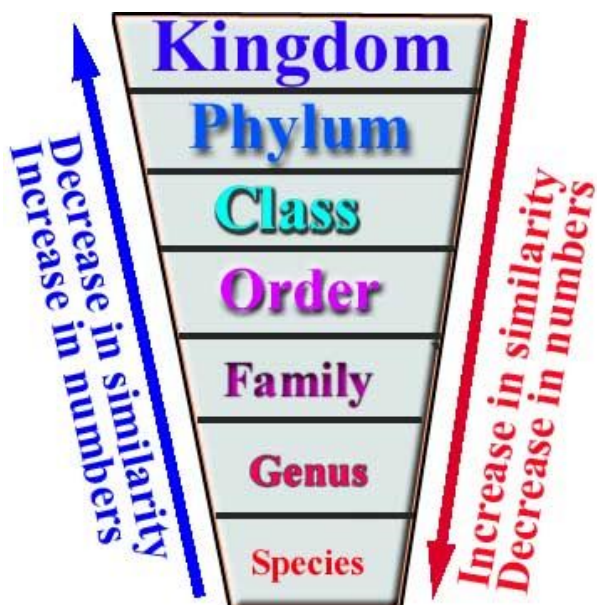## The modern classification system :

Developed by Carolus Linnaeus

Consists of 7 levels:

- **Kingdom**
- **Phylum**
- **Class**
- **Order**

- **Family**
- **Genus**
- **Species**

copy

Biologist group living things
Hierarchy of classifying living things

Kingdom
Phylum
Class
Order
Family
Genus
Species

Decrease in similarity
Increase in numbers

Increase in similarity
Decrease in numbers
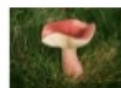
King

Philip

Came

Over

For

Green

Skittles

Don't copy

1) **Kingdom**-broadest and most inclusive level that includes a group of related phyla

2) **Phylum**-a group of related classes

3) **Class**-a group of related orders

4) **Order**-a group of related families

5) **Family**-a group of related genera

6)**Genus**-a group of related species

7)**Species**-smallest and least inclusive level that names one particular type of organism

Don't copy

Kingdoms

- Any grouping of organisms into kingdoms is based on several factors:
  - Presence of a nucleus
  - Unicellular or multi-cellular
  - How organisms get their food.

- Five different kingdoms of organisms are generally recognized by scientists today
  - **Protists**
  - **Monerans**
  - **Fungi**
  - **Plants**
  - **Animals**

Don't copy

Kingdom Animalia

Phylum Chordata

Class Aves

Order Strigiformes

Family Strigidae

Genus *Bubo*

Species *Bubo virginianus*

Don't copy

Classification Level	Human (?)	Canada goose	Lake darner	Mosquito
Common Name	Human (?)	Canada goose	Lake darner	Mosquito
Kingdom	Animalia	Animalia	Animalia	Animalia
Phylum	Chordata	Chordata	Arthropoda	Arthropoda
Class	Mammalia	Aves	Insecta	Insecta
Order	Primate	Anseriformes	Odonata	Diptera
Family	Hominidae	Anatidae	Aeshnidae	Culicidae
Genus	*Homo*	*Branta*	*Aeshna*	*Aedes*
Species	*sapiens*	*canadensis*	*eremita*	*fitchii*

Attachments

VErtebrate Article (New one found) .docx