



Name: _____
Hour: _____

Abiotic vs Biotic Factors



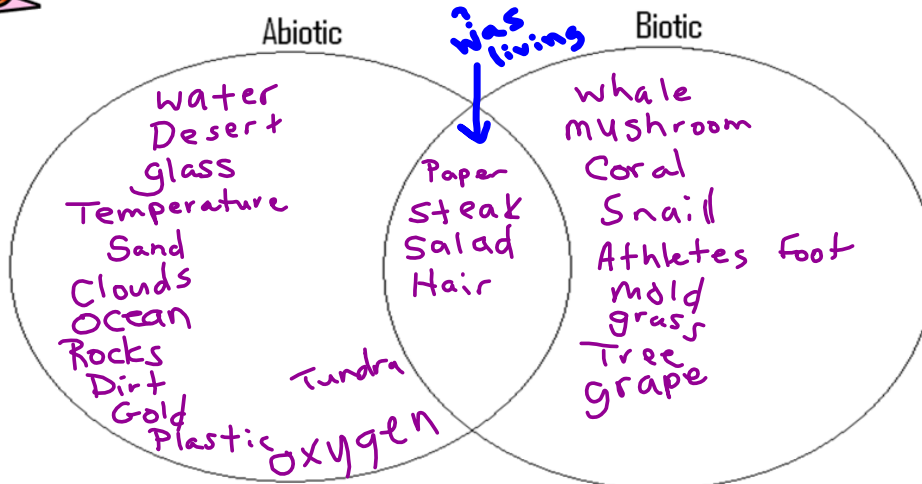
What is the definition of an abiotic factor?

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



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.

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

If you remove the rocks the lizards will die.
The bug population will increase since nothing eats it.

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

No trees means more water on the ground.
No trees in 10 miles means we will have less oxygen.

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*.



Scientists over time have developed a naming system that they all understand 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