

Relation to the Environment

Created: Friday, 15 July 2011 05:14 | Published: Friday, 15 July 2011 05:14 | Written by [Super User](#) | [Print](#)

The environment contains many organisms, and they are interlinked with each other. All organisms are depending upon one or more other organisms. This environment consists of physical and biological attributes. The environment in ecosystems includes both physical parameters and [biotic](#) attributes.

- The physical environment: The [abiotic](#) factors like temperature light, [climate](#) etc.
- The biotic environment: Genes, cells etc.

Change in any environmental factor affects the state of an entire ecosystem.

Physical Environment

Water



Aquatic Environment

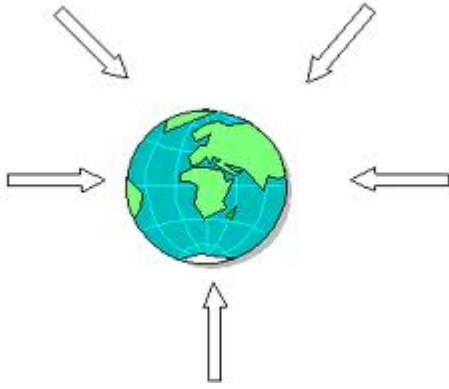
Water has lot of oxygen which induces the growth of aquatic plants and animals. The physiological and morphological adaptations of the aquatic plants help them to survive in water even in the changing environmental conditions.

For example, large cellular air spaces allow the gas transportation in the roots and stems of plants. The transportation of gases used in photosynthesis reaction and in respiration.

Microbes use oxygen during respiration in drained soil. Anaerobic soil microorganisms use nitrate, iron like organic compounds in aquatic environments.

[Osmoregulation](#) is the process which helps fish to survive in high levels of salt water. Gills of fish form electrochemical gradients which mediate salt extrusion in salt water and uptake in fresh water.

Gravity



Gravity

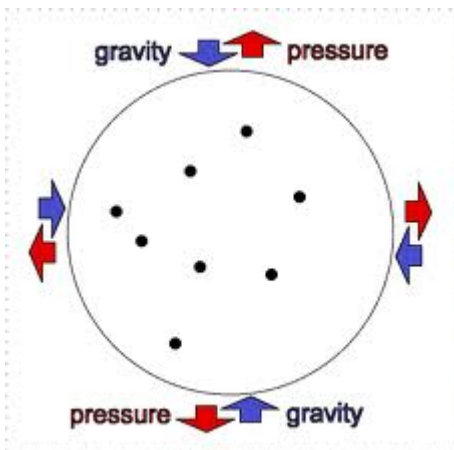
Gravitational forces affect many geophysical properties of the Earth. During the growth of plants, the allocation of biomass is subject to mechanical failure because of the influence of the [gravitational](#) forces on the position and structure of branches and leaves.

How do we humans tolerate the gravitational changes?

Our cardiovascular systems take the lead role here. Yes, the cardiovascular systems are adapted to face any physiological changes like gravitational forces. It varies for organisms based on the shape, height, etc..

The behaviour like running, flying and the living habitat like cold or hot climate also play a role on the adaptation to gravitational forces.

Pressure



Correlation of Gravity & Pressure

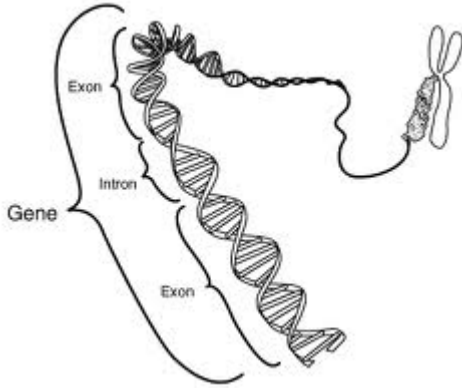
[Osmotic pressure](#) and climatic pressure influence on the organisms's activities like respiration, flying, eating etc.

At higher altitudes the increase and decrease of oxygen are the limiting factor for life. Water [transportation](#) trees dependent upon pressure.

Biotic Environment:

Genes

Genes are present in the nucleus of the cells. It contains the hereditary materials. This hereditary material is inherited to next generation and if any mutation occurs because of sudden change in climate, disease, or anything that will end up with the change of [genes](#). This change of genes can change the habit and characteristics of the organisms.



Genes

Want to know more about the physical Environments? [Click here](#) to schedule live online session with e Tutor!

About eAge Tutoring:

[eAgeTutor.com](#) is the premium online tutoring provider. Using materials developed by highly qualified educators and leading content developers, a team of top-notch software experts, and a group of passionate educators, eAgeTutor works to ensure the success and satisfaction of all of its students.

[Contact us](#) today to learn more about our tutoring programs and discuss how we can help make the dreams of the student in your life come true!

Reference Links:

- http://en.wikipedia.org/wiki/Natural_environment
- [http://en.wikipedia.org/wiki/Environment_\(biophysical\)](http://en.wikipedia.org/wiki/Environment_(biophysical))
- <http://en.wikipedia.org/wiki/Temperature>
- <http://en.wikipedia.org/wiki/Light>
- <http://en.wikipedia.org/wiki/Gravitation>

Category:ROOT

[Joomla SEF URLs by Artio](#)