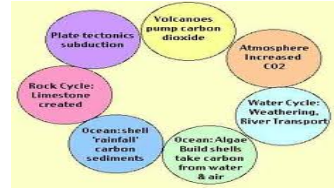


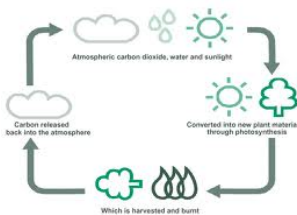
The Carbon Cycle

Created: Thursday, 16 June 2011 10:04 | Published: Thursday, 16 June 2011 10:04 | Written by [Super User](#) | [Print](#)

Significance of Carbon Cycle:



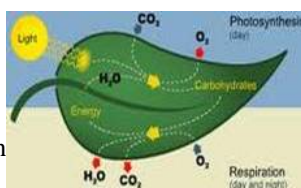
[The Carbon Cycle](#) is a complex series of processes through which all of the carbon atoms in existence rotate the key events here are the complementary reactions of respiration and photosynthesis.



Definition:

It is the process in which carbon atoms are recycled over and over again on Earth.

Carbon Cycle Processes

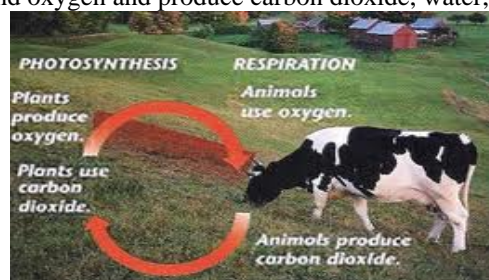


1. Respiration

2. Photosynthesis

[Respiration](#) happens with the use of carbohydrates and oxygen and produce carbon dioxide, water, and energy. Photosynthesis

utilizes carbon dioxide and water and produces ca



bohydrates (food) and oxygen.

The product of respiration is utilized in photosynthesis, and the products of photosynthesis are utilized in respiration. They have the complementary reactions in the way they deal with energy.

[Photosynthesis](#) absorbs the energy from the sun and stores it in the C - C bonds of carbohydrates. Respiration releases that energy. Respiration happens in both plants and animals. But plants only can carry on photosynthesis. Oceans and in rock are the chief

reservoirs for carbon dioxide. It dissolves in water. It may precipitate as calcium carbonate commonly known as solid rock.

Where does the Carbon present?

- Part of several plants and trees
- free-floating in the air as carbon dioxide
- locked away in the shell of a sea creature and then buried at the ocean bottom
- Part of a volcanic eruption.
- In chemicals like (CO_2) (CaCO_3)
- In organic compounds such as hydrocarbons (like coal, petroleum, and natural gas).

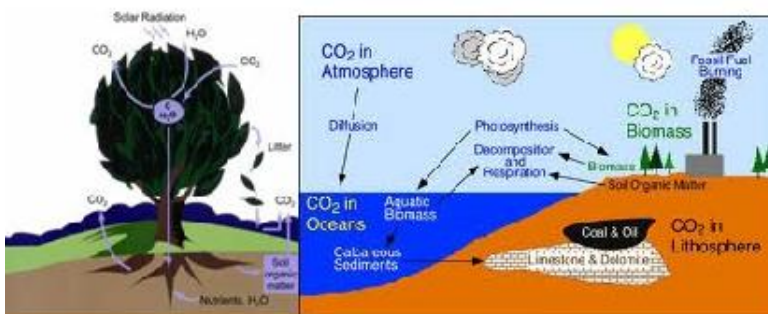
Human Impact on Carbon Cycle:

Burning [fossil fuels](#) like petrol, Diesel humans release excess carbon dioxide into the atmosphere. Industrial revolution is also a major reason for the increase of carbon in the atmosphere. Luckily, more carbon dioxide goes into the oceans and absorbed by plants and soils. Still some amount is present in the atmosphere. Atmospheric Carbon increase leads to global warming.

Green House Effect:

Carbon dioxide is a "greenhouse gas" believed by many scientists. It traps heat and prevents it from escaping from Earth. As a result, this trapped gas leads to a global temperature rise, known as [Green house effect](#).

Carbon Cycle Process:



Movement of carbon from one form to another form is

shown in the picture below. The main processes are photosynthesis, respiration, decomposition, natural weathering of rocks, and the combustion of fossil fuels.

Within Earth's [biosphere](#) and between living things and the nonliving environment, Carbon recycling takes place. The carbon cycle is the name given to the different processes that move carbon from one to another because a continual supply of carbon is essential for all living organisms. The complete cycle is made up of "sources" that put carbon back into the environment and "sinks" that absorb and store carbon.

Want to know more about 'Carbon Cycle?' [click here](#) to schedule live homework help from a certified tutor!

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Reference Links:

- <http://en.wikipedia.org/wiki/Photosynthesis>
- http://en.wikipedia.org/wiki/Carbon_cycle
- <http://en.wikipedia.org/wiki/Photosynthesis>
- http://en.wikipedia.org/wiki/Greenhouse_effect
- http://en.wikipedia.org/wiki/Fossil_fuel
- <http://www.5min.com/Video/Learn-about-The-Carbon-Cycle-117566979>
- <http://www.youtube.com/watch?v=s8-sGusvKo8&feature=related>

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