

Carbon Dioxide and the Carbon Cycle

Carbon Cycle Reservoirs

CO₂ and the Atmosphere

Temperature and CO₂

Click on the name of each reservoir for more information.

Fossil Fuels: 10,000 Gt

Oil, coal, and natural gas are under Earth's surface. They are not a significant part of today's carbon cycle unless people bring them to the surface, and then burn or use them.

Ocean: 41,000 Gt

CO₂ gas from the air dissolves in water and becomes a dissolved salt called bicarbonate. Some bicarbonate becomes CO₂ gas again, which escapes back into the air.

Atmosphere: 840 Gt

Most of the carbon in the air is carbon dioxide, CO₂. The atmosphere is the reservoir of the carbon cycle that changes the most and the quickest. It is also the reservoir where carbon has the biggest direct effect on climate.

Land Biomass: 2500 Gt

Biomass is matter that is in, or came from, living organisms. Most of the carbon in biomass is in trees and plants or in decomposing material in soil.

Rocks: 60,000,000 Gt



Note: Units are gigatons of carbon.
One gigaton = one billion tons