

Global Carbon Cycle Diagram

Sketch a Global Carbon Cycle using this table. Draw colored arrows showing the direction carbon is moving from each reservoir. Label each arrow with the process that is moving the carbon from reservoir to reservoir (you must find the processes on your own). Label the amount of carbon that is in each reservoir and label the amount of carbon that is moving.

Carbon Reservoirs and Atmospheric Flows Table

CARBON RESERVOIRS AND ATMOSPHERE FLOWS			
RESERVOIR	FORM OF CARBON	AMOUNT IN RESERVOIR	FLOW RATE WITH ATMOSPHERE
Atmosphere	Mainly carbon dioxide (gas)	840 Gt	Greenhouse gases are increasing due to human activities.
Biomass (biosphere)	Sugar, protein, etc. (solid, liquid)	2,500 Gt (mostly in plants and soil)	About 120 Gt per year into and out of air. Currently absorbing about 2.5 Gt per year.
Ocean (hydrosphere)	Mostly dissolved bicarbonate salts	41,000 Gt	About 80 Gt per year into and out of air. Currently absorbing about 2.5 Gt per year.
Sedimentary rocks (geosphere)	Carbonate minerals (solid)	60,000,000 Gt	Negligible annually but important over very long time scales.
Fossil Fuels (geosphere/anthrosphere)	Methane (gas) Petroleum (liquid) Coal (solid)	10,000 Gt	About 9 Gt/year into atmosphere, mostly from burning as fuels for energy.