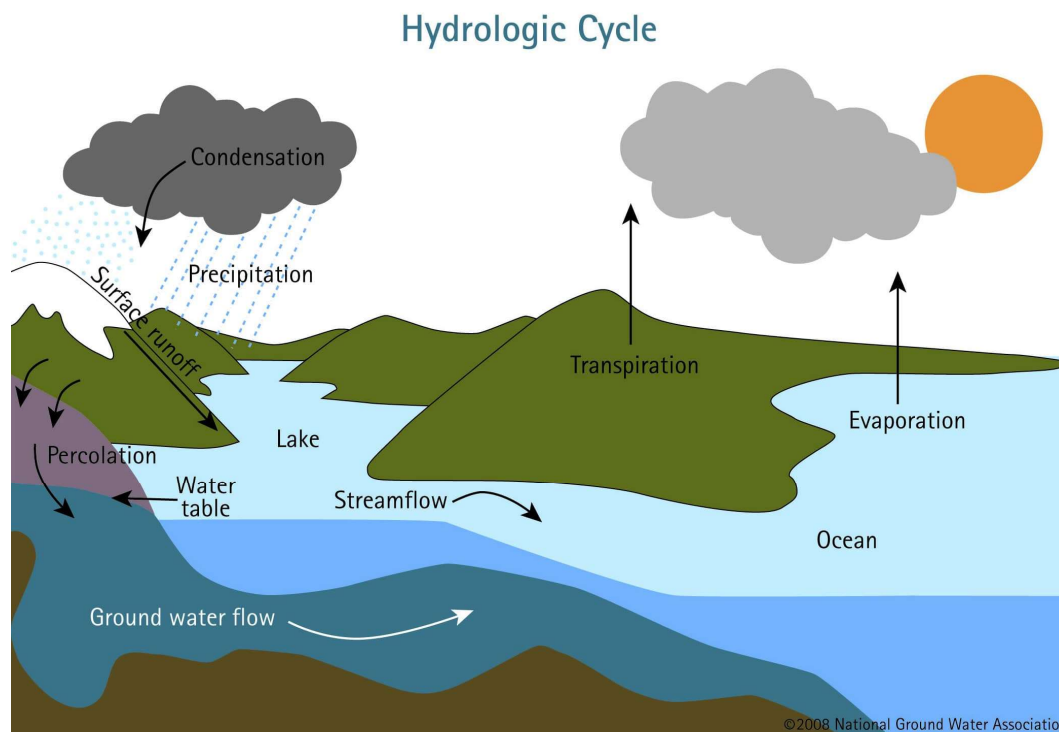


Hydrologic cycle -water cycle

- Life on Earth is dependent on the cycling of water back and forth among various reservoirs in the Earth system, and are hydrosphere

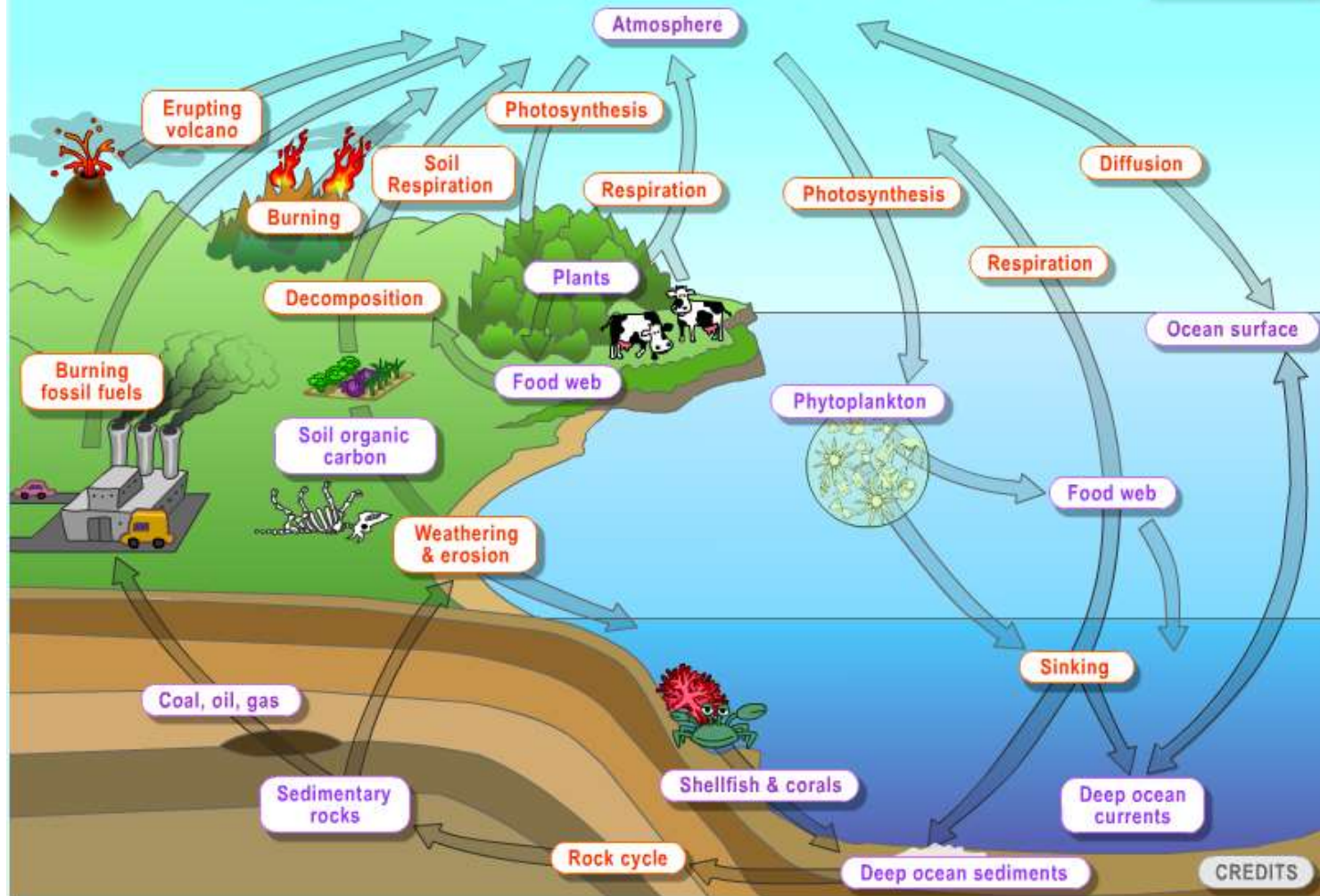


Reservoirs of water	Mass	Residence time
Atmosphere	0.01	Days
Fresh water (lakes and rivers)	0.6	Days to years
Fresh water (underground)	15	Up to hundreds of years
Alpine glaciers	0.2	Up to hundreds of years ^a
Greenland ice sheet	5	10,000 years ^b
Antarctic ice sheet	53	100,000 years
Oceans	2,700	
Crust and mantle	20,000	10 ¹¹ years

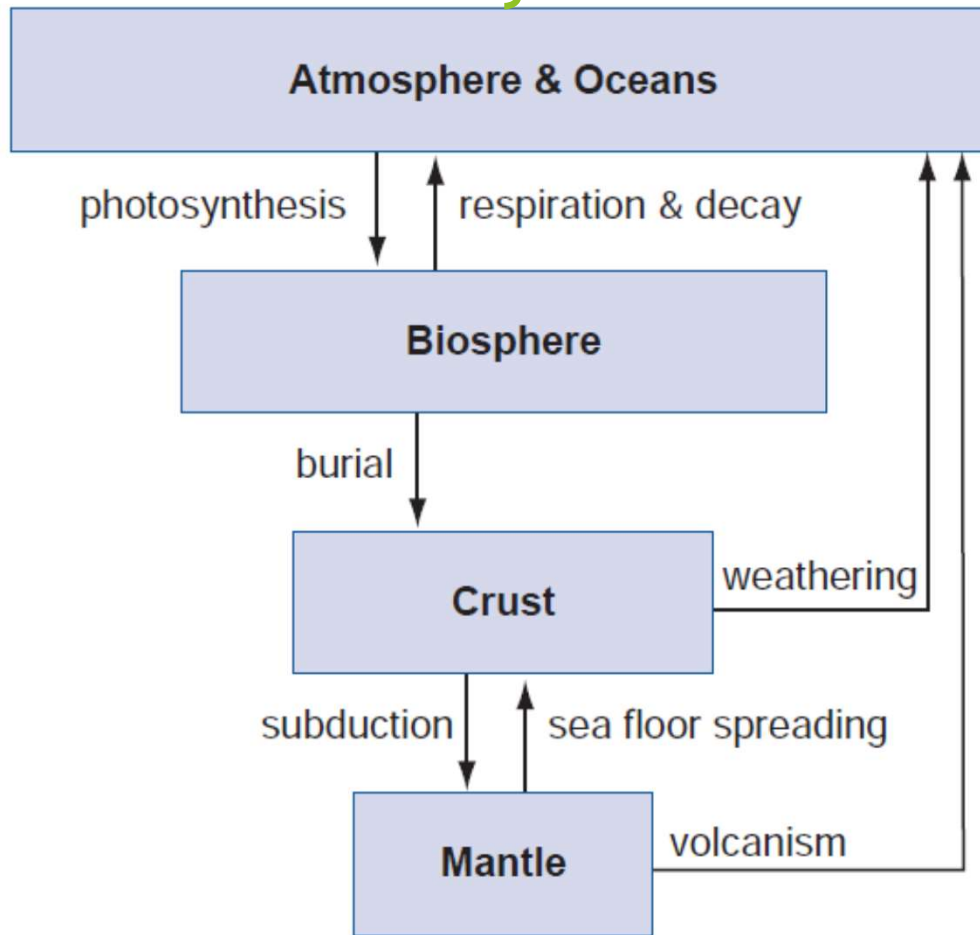
Mass in 10³ kg/m²

THE CARBON CYCLE

KEY
■ Process
■ Reservoir



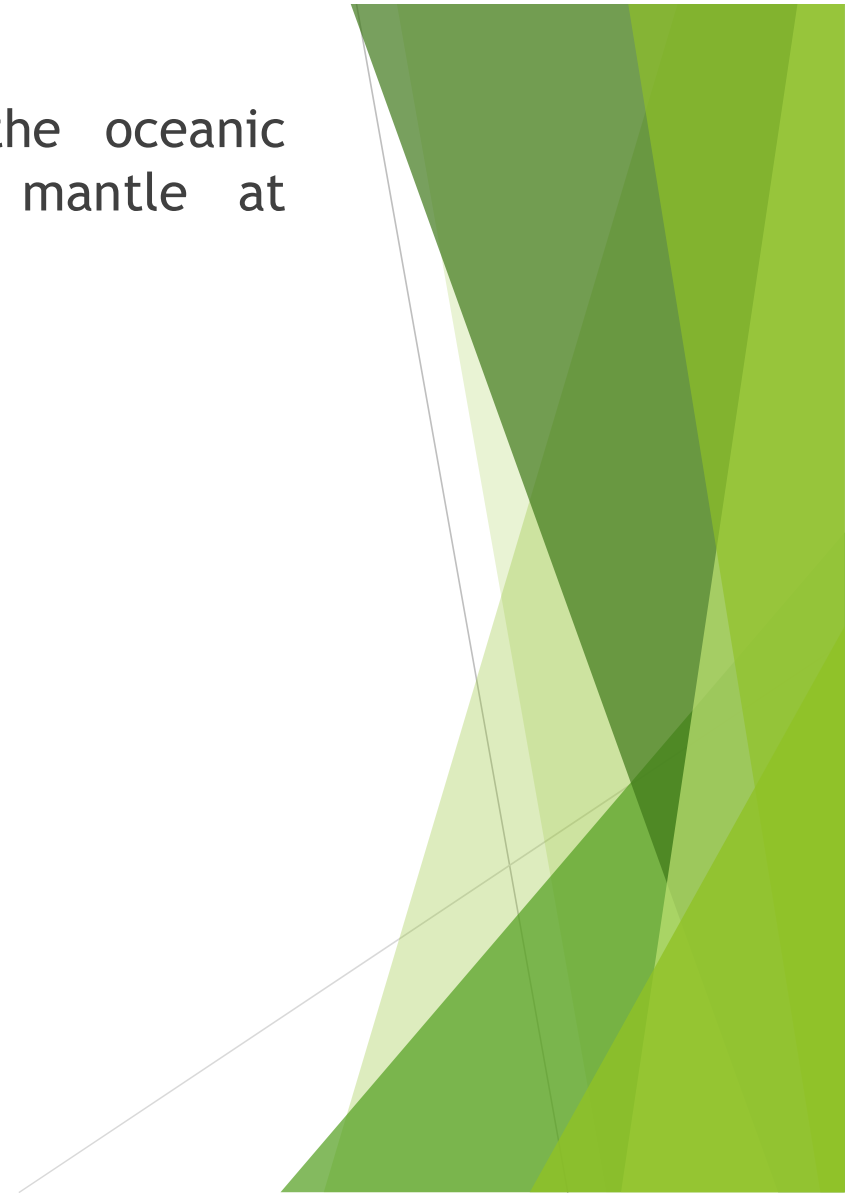
Carbon cycle



- Carbon cycle is important because it regulates two important green house gases CO_2 and CH_4

- ▶ Subduction: geological process in which the oceanic lithosphere is recycled into the Earth's mantle at convergent boundaries

- Lithosphere: Rocky outer part of the Earth



- ▶ Seafloor spreading is a geologic process in which tectonic plates—large slabs of Earth's lithosphere—split apart from each other

