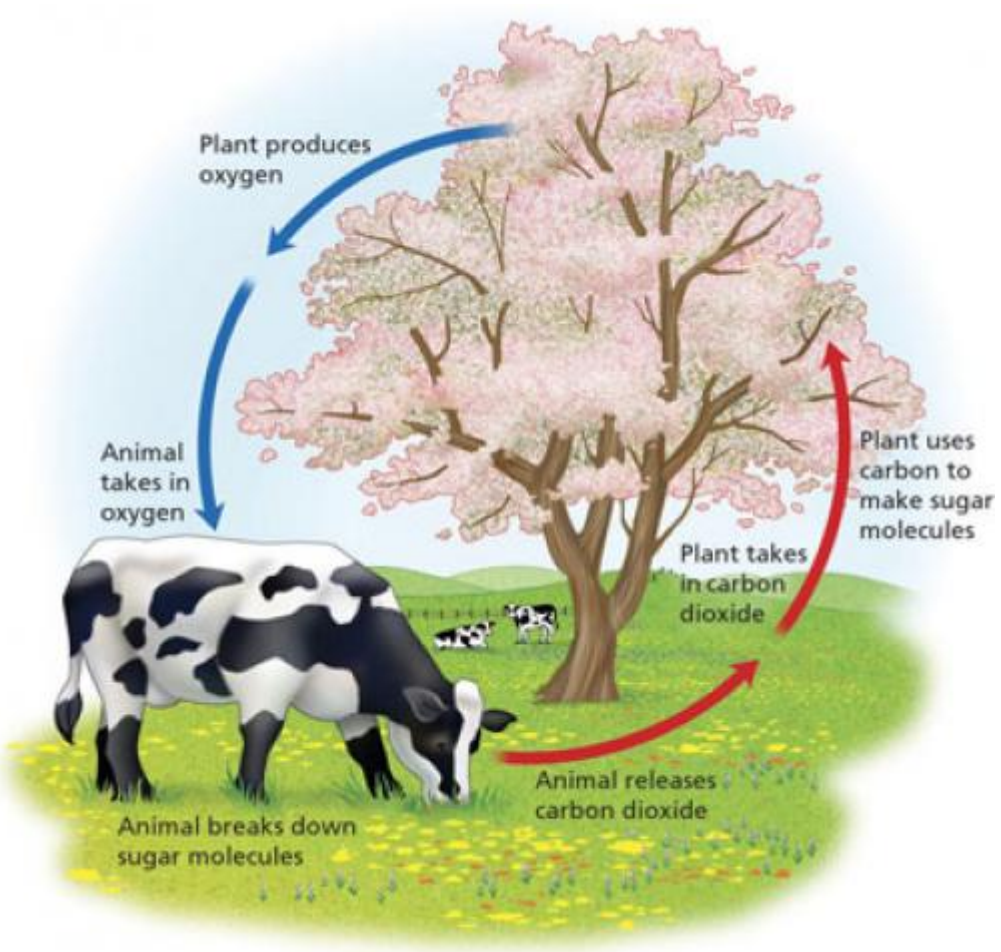
Cycles

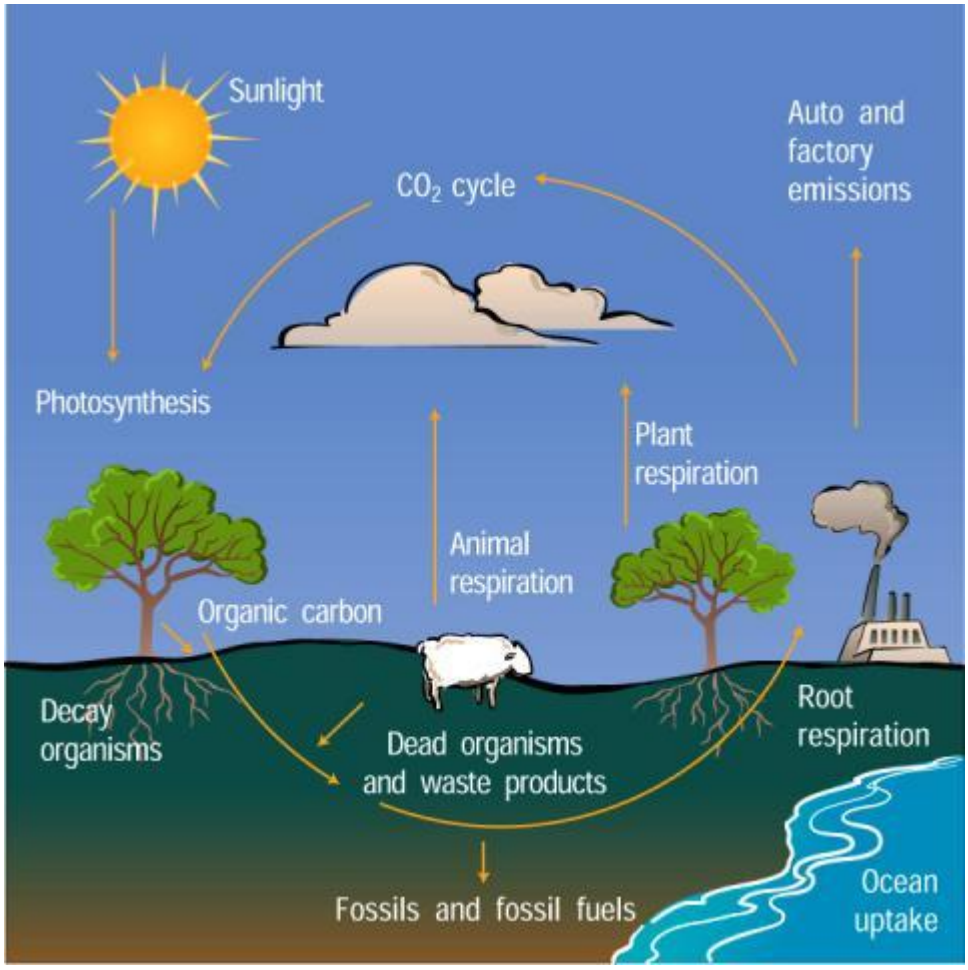
The Oxygen Cycle

- Photosynthesis adds O_2.
- Cellular respiration removes O_2 from the air
- Photosynthesis and respiration usually balance out.
- Connected to the Carbon cycle
- Requires water
- Most living organisms require its use.

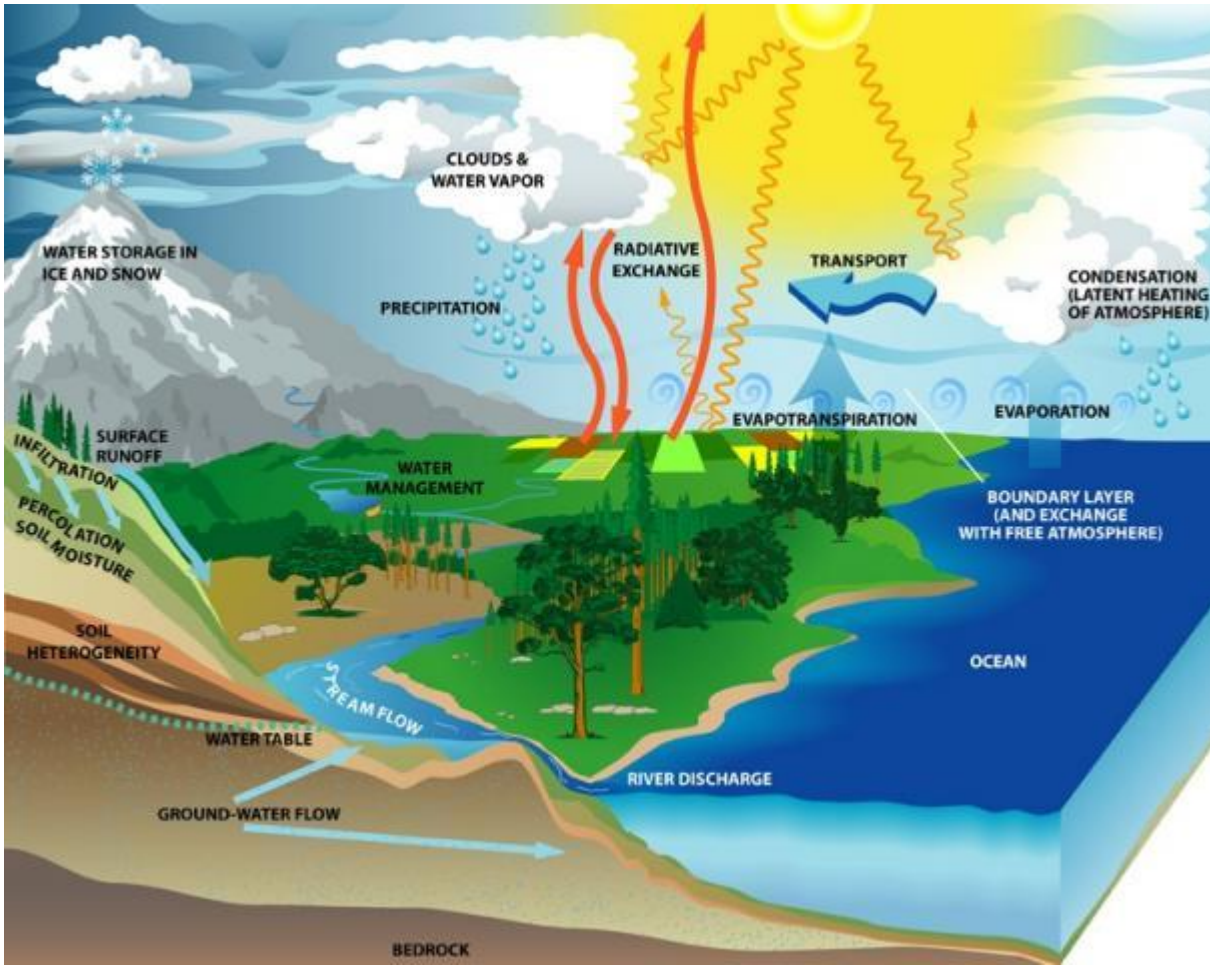


The Carbon Cycle

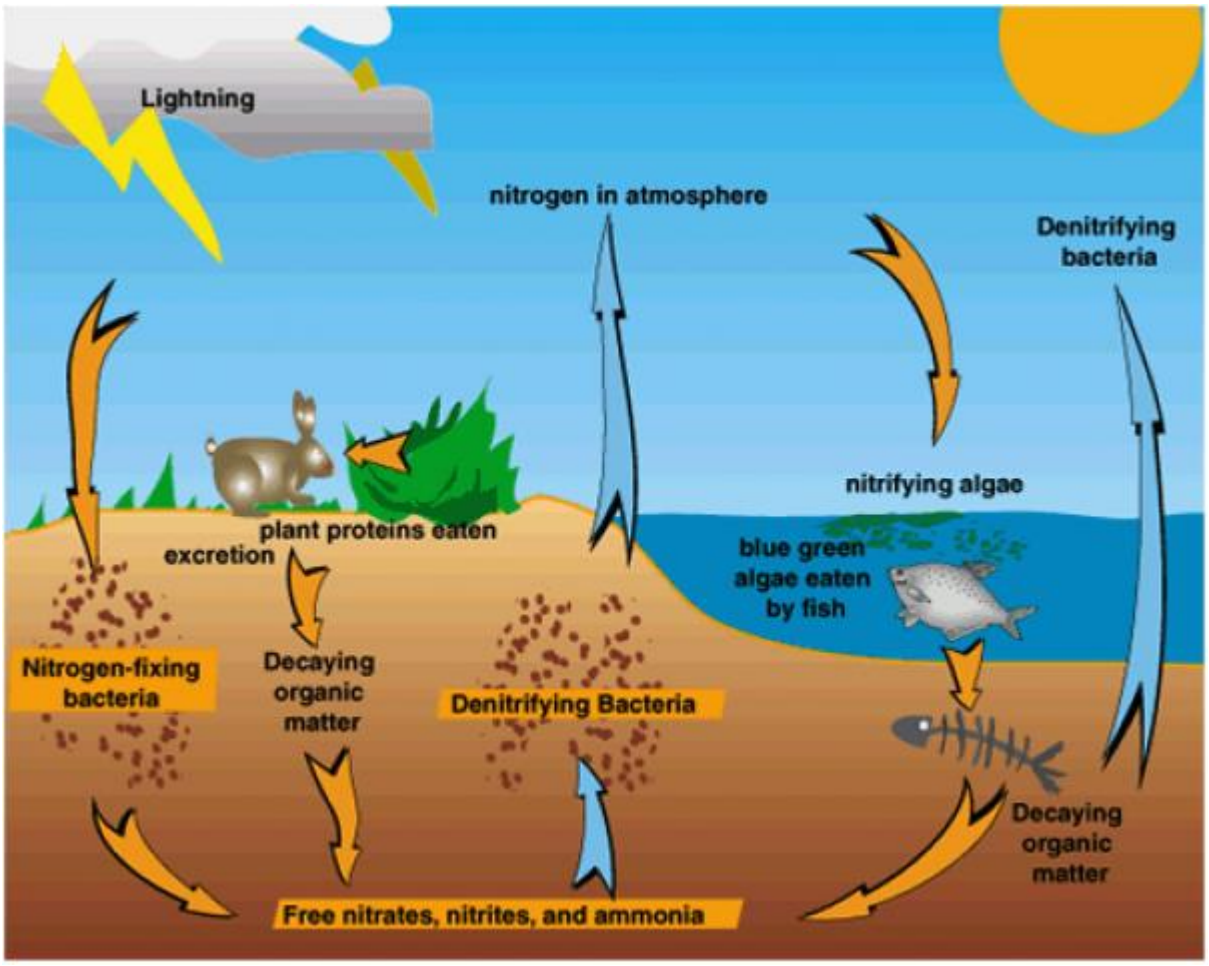
- Photosynthesis removes CO_2 from the air
- Cellular respiration adds CO_2.to the air
- Photosynthesis and respiration usually balance out.
- Decomposers break down organic material releasing CO_2.
- Connected to the Oxygen cycle
- Increased levels of CO_2 in the atmosphere trap more heat and increase the possibility of global warming.



The Water Cycle



<u>The Nitrogen Cycle</u>



Nitrogen- fixation

Nitrogen fixation is carried out by nitrogen fixing bacteria which convert nitrogen gas to nitrates in the soil. Lightning also converts nitrogen gas into nitrates in the soil. Some nitrogen fixing bacteria are found in association with root nodules such as those of legumes, resulting in the fertility of the soil being increased.

Denitrification

This process is also carried out by bacteria in the soil. They convert nitrates into nitrogen gas and send it back to the atmosphere. This action reduces soil fertility.