

# Carbon Cycle

1. Photosynthesis: Plants pull CO<sub>2</sub> out of the air
2. Respiration: animals breathe in O<sub>2</sub> and exhale CO<sub>2</sub> or soil releases carbon into the air.
3. Consumption: Animals eat plants full of carbon
4. Decomposition: Plants and animals die and return Carbon to the Earth.
5. 5. Fossil Fuel: Carbon in Earth condenses to create fuels
6. 6. Combustion: Burning fossil fuels returns CO<sub>2</sub> to atmosphere.

# Nitrogen Cycle

**Nitrogen fixation:** Bacteria converts Nitrogen in atmosphere ( $N_2$ ) to the soil in the form of ammonium ( $NH_3$ )

**Nitrification:** Decomposers convert  $NH_3$  to nitrites or nitrates.

**Assimilation:** Plants use nitrates to grow and animals eat the plants to grow

**Ammonification:** Plants and animals die so  $N_2$  returns to the soil and atmosphere.

**Denitrification:** Denitrifying bacteria releases  $N_2$  back into atmosphere.