

NUTRIENT CYCLES REVIEW OF IONS AND CHEMICAL FORMULAS

The Carbon Cycle

CO_2	carbon dioxide
CaCO_3	limestone or calcite – in rock or incorporated into shells of organisms
CO_3^{2-}	carbonate ions (mainly dissolved in seawater)
$\text{C}_6\text{H}_{12}\text{O}_6$	glucose in plants

The Nitrogen Cycle

N_2	nitrogen gas
NH_3	ammonia
NH_4^+	ammonium ions
NO_2^-	nitrite
NO_3^-	nitrate
N_2O	nitrous oxide gas (a greenhouse gas)
HNO_3	nitric acid (acid rain)

The Phosphorous Cycle

PO_4^{3-}	phosphate ions
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The Sulfur Cycle

SO_4^{2-}	sulfate ions
FeS_2	iron sulfide (pyrite – “fool’s gold”)
$\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$	calcium sulfate (gypsum)
H_2S	hydrogen sulfide gas
SO_2	sulfur dioxide gas
H_2SO_4	sulfuric acid (acid rain)