

# Grade 9 - Unit 3 – Environmental Chemistry Concepts

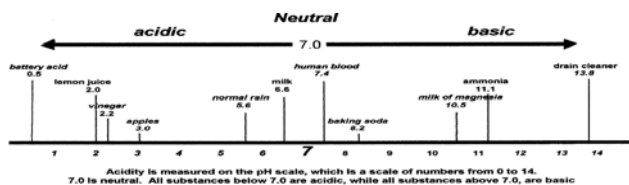
\* Medicines from the Environment \*

<b>Nutrients</b>	<b>Harmful Human Activities</b>
- Optimum Amount - Macronutrients Micronutrients (trace)	Agricultural Waste Fuel Combustion Industry Manufacturing
<b>Organic</b> (contain carbon) Carbs, fats, proteins, nucleic acids	
<b>Inorganic</b>	

**Water**  
Chemical Testing (ppm)

**Air**  
Sulfur Dioxide  
Nitrogen Oxides  
Carbon Monoxide  
Ground-Level Ozone  
Chloroflurocarbons (CFC's)

**Soil**  
Pesticides  
Heavy Metals  
Toxins



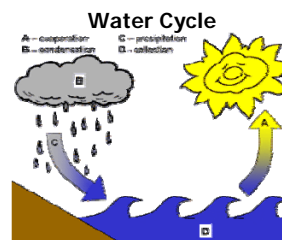
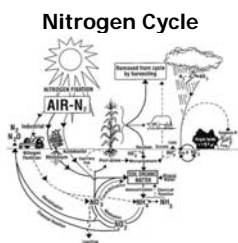
**Atmosphere**  
Greenhouse Effect  
Enhanced Greenhouse Effect  
Global Warming  
Toxicity

**Neutralization**  
Acid + Base → Salt + Water

**LD50**

**Chemicals Support or Harm Living Things**

**Monitoring for Quality**

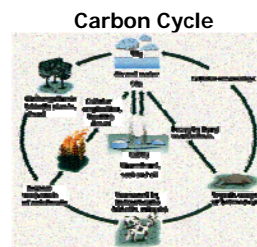
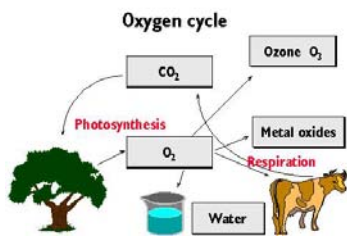


H  
C  
O  
N

Mo Mn Mg Na Se Fe Sn Ca

**Environmental  
Chemicals**

Si V B I K Zn Cl Ni Cr Cu S



F  
P  
O  
H

**Chemical Transportation**

**Chemical Hazards**

<b>Plants</b> Diffusion Osmosis Active Transport	<b>Animals</b> Ingestion Digestion Absorption	<b>Environment</b> Release Dispersion Deposition Dissolving Dilution Leaching
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Biomagnification	W.H.M.I.S.	Labeling
Bioaccumulation	MSDS	Disposal Sites

**Substrate**  
**Changing Chemical Concentrations**  
Biodegradation    Phytoremediation    Photolysis

Storage and Transportation  
of Dangerous / Hazardous Goods  
Government Regulations