Environmental Chemistry



It is a way of thinking and utilizing the existing knowledge and principles of chemistry and other science to reduce the adverse impact in environment.



Green chemistry

Gradual increase in average temperature of surface of the earth due to increase in concentration of green house gases (CO_2, CFC_s, CH_4)

Global warming



Green House Effect

It is naturally occurring phenomenon responsible for heating earth's surface and atmosphere

Amount of oxygen required by bacteria to break down the organic matter present in a certain volume of a sample of water.

Biochemical oxygen demand (BOD)



Water Pollution

Pathogens

Disease. Tauring agents. Include bacteria.







Soil Pollution

- Pesticides
- Herbicides
- Industrial waste
- Plastics

Preventions

- Use of manures.
- Use of bio-fertilizers.
- Proper Sewage System.
- Salvage and recycling.

Types

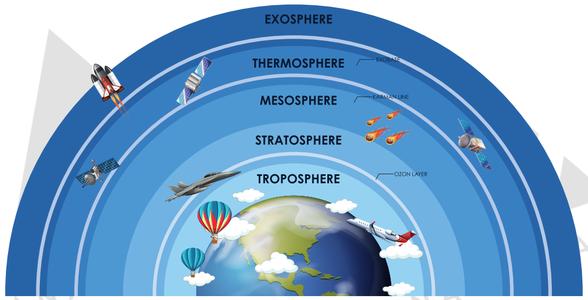
1. Biodegradable waste: Generated by cotton mills, paper mills, textiles, etc.
2. Non-biodegradable waste: Generated by power plants, steel plants, fertilizer industries.etc

Atmosphere

Troposphere : 0-10 km
Stratosphere : 10-30 km
Mesosphere : 30-50 km
Thermosphere : 50-400 km
Exosphere : 400 km

Layer of Atmosphere

THE EARTH'S ATMOSPHERE



When pH of rain water drops below 5.6

Acid Rain

Atmospheric pollution

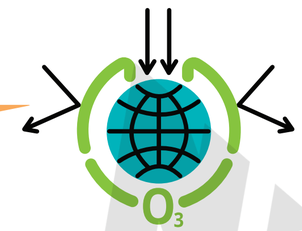


- Oxides of Sulphur
- Oxides of Nitrogen
- Oxides of Carbon
- Particulate pollutants
- Hydrocarbons

Smog → Smoke + Fog

- Classical Smog
- Photochemical Smog

Depletion of O_3 Layer



OZONE DEPLETION

Chlorofluorocarbon (CFC'S)

CFC + hv (high heat) + O_3 → Free Cl ion

Free Cl ion + O_3 → O_2 + O

ANAND MANI