

Atmosphere Composition and Structure

By

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Definitions of Atmosphere

1. A.E.M. Geddes – The envelope of colourless, testless and odourless gas which surrounded the earth has been called the atmosphere
2. Finch and Trewartha – Surrounding the earth and yet an integral part of the planet is a gaseous envelope called the atmosphere which extends to a several hundred miles
3. Koppen and De Long – Atmosphere is mixture of different gaseous among the land and water area on the earth

- Origin of Atmosphere



- Composition of the Atmosphere

- 1. Gases

- 2. Dust Particles

- Water Vapour



Composition of the atmosphere

Main Elements = 99%

Nitrogen (N₂) 78%
Oxygen (O₂) 21%

Trace Elements = 1% Xenon (Xe)

Argon (Ar) Ozone (O₃)

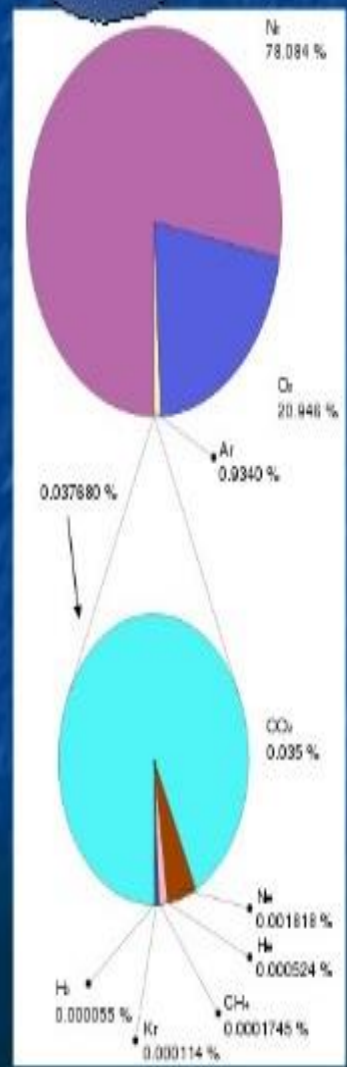
Carbon Dioxide (CO₂) Nitrogen Dioxide (NO₂)

Neon (Ne) Iodine (I)

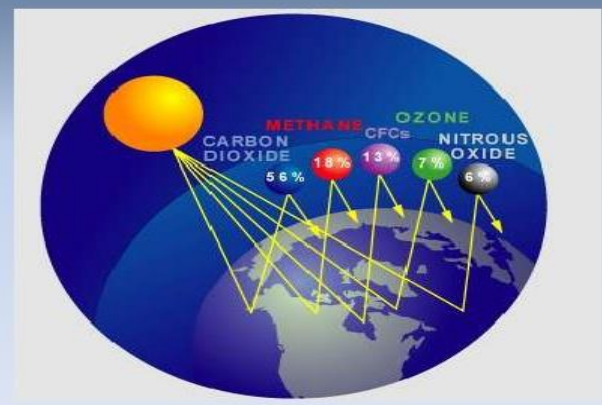
Helium (He) Carbon Monoxide (CO)

Methane (CH₄) Ammonia (NH₃)

Nitrous Oxide (N₂O) Water Vapour (H₂O)



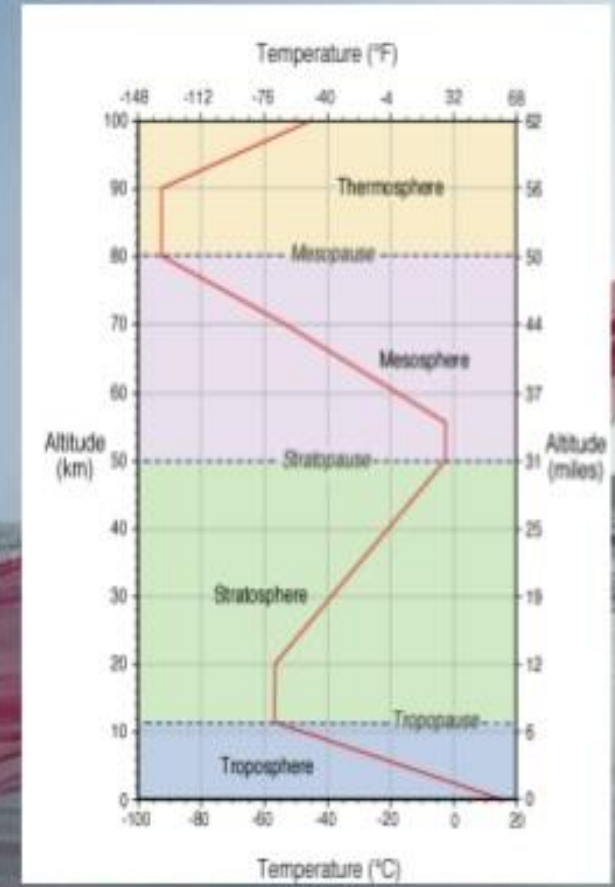
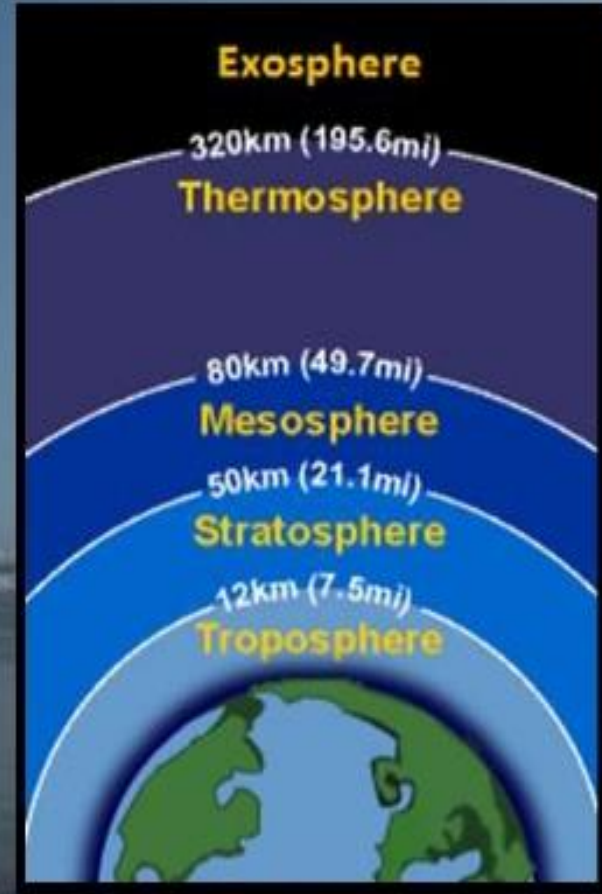
COMPOSITION OF ATMOSPHERE



- Structure of the Atmosphere of Layers of the Atmosphere

Structure of the Atmosphere

- 1. Troposphere – Tropopause
- 2. Stratosphere – Ozonosphere
- 3. Ionosphere / Thermosphere – D layer, E layer, F layer
- 4. Exosphere or Magnetosphere



Thanks