

# What is atmosphere?

We all know that earth is a unique planet due to the presence of life. The air is one among the necessary conditions for the existence of life on this planet. The air is a mixture of several gases and it encompasses the earth from all sides. The air surrounding the earth is called the atmosphere.



- Atmosphere is the air surrounding the earth.
- The atmosphere is a mixture of different gases. It contains life-giving gases like Oxygen for humans and animals and carbon dioxide for plants.

- It envelops the earth all round and is held in place by the gravity of the earth.
- It helps in stopping the ultraviolet rays harmful to the life and maintains the suitable temperature necessary for life.
- Generally, atmosphere extends up to about 1600 km from the earth's surface. However, 99 % of the total mass of the atmosphere is confined to the height of 32 km from the earth's surface.

## Composition of the atmosphere

- The atmosphere is made up of different gases, water vapour and dust particles.
- The composition of the atmosphere is not static and it changes according to the time and place.

## Gases of the atmosphere

Clear IAS	Permanent Gases of the Atmosphere	
	Percent	Concentration in Parts Per Million

Constituent	Percent by Volume	Parts Per Million (PPM)
Nitrogen (N <sub>2</sub> )	78.084	780,840.0
Oxygen (O <sub>2</sub> )	20.946	209,460.0
Argon (Ar)	0.934	9,340.0
Carbon dioxide (CO <sub>2</sub> )	0.036	360.0
Neon (Ne)	0.00182	18.2
Helium (He)	0.000524	5.24
Krypton (Kr)	0.000114	1.14
Hydrogen (H <sub>2</sub> )	0.00005	0.5

- The atmosphere is a mixture of different types of gases.
- Nitrogen and oxygen are the two main gases in the atmosphere and 99 percentage of the atmosphere is made up of these two gases.
- Other gases like argon, carbon dioxide, neon, helium, hydrogen, etc. form the remaining part of the atmosphere.
- The portion of the gases changes in the higher layers of the atmosphere in such a way that oxygen will be almost negligible quantity at the heights of 120 km.
- Similarly, carbon dioxide (and water vapour) is found only up to 90 km from the surface of the earth.

