

## Air Around us

### Air is Present Everywhere

Our earth has a thin layer of air called the atmosphere. This air is present everywhere around us. Air occupies space and weight. It is colourless and odourless.

#### Activity

##### Air occupies space

Take a glass and place a crumpled paper at the bottom of it. Now invert this glass in a tub containing water. Invert it in a tub having water. Take out the glass and observe the paper. Does the paper get wet? No, the paper isn't wet.



Conclusion: The water does not enter the glass because air is filled in it which does not allow the water to rush in.

### Composition of Air

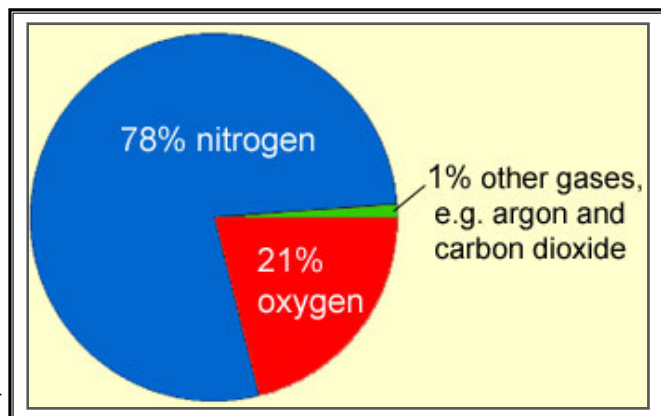
Air is composed of a mixture of gases.

**Nitrogen** - 78%

**Oxygen** - 21%

**Carbon dioxide, water vapour & other gases** - 1 %

Air also contains smoke from burning of fuels and exhaust from industries and dust.



**Nitrogen** - It is the most abundant gas which occupies nearly four-fifth of the space.

**Oxygen** - This gas is utilized by the living organism for respiration. Plants give out oxygen gas as a product of photosynthesis. Oxygen gas is essential for the purpose of burning.

**Carbon dioxide** - Green plants use carbon dioxide for photosynthesis and both plants and animals consume oxygen for respiration and produce carbon dioxide.

### Oxygen Availability to Animals and Plants Living in Water and Soil

Plants and animals living in water utilize oxygen in the dissolved form for respiration. This oxygen content is depleting due to dumping of wastes in water. The whole aquatic habitat is affected because of water pollution.

Oxygen is required by animals like earthworm living in soil also. These tiny creatures live in burrows and consume oxygen present in between the soil spaces.



### Replacement of Oxygen in Atmosphere

Plants use carbon dioxide for photosynthesis while both plants and animals use oxygen for respiration. The consumption of oxygen for respiration by plants is very less in comparison to the oxygen given out by photosynthesis. Plants give out oxygen which is used by animals and animals give out carbon dioxide that is used by plants.

### Uses of Air

Moving air is called as wind. This can be used for various purposes

- Windmill which moves by wind are used for the generation of electricity.
- Air helps in the movements of sailing yachts, gliders, parachutes and aeroplanes.
- Birds, bats and insects can fly due to the presence of air.
- Air also helps in the dispersal of seeds and pollen of flowers of several plants.
- Air plays an important role in water cycle.