

# Air and atmosphere

## Exercise 1

- 1) Thick layer of air that surrounds the Earth is called atmosphere.
  - 2) We cannot see air because it is colourless, odourless, tasteless and transparent gaseous matter.
  - 3) The first movement of air is called wind.
  - 4) Atmosphere protects the Earth from harmful rays thus protecting us. We could be either burnt or frozen if there was absence of atmosphere. In the absence of it, the earth would have got very hot during the day and cold at night.
  - 5) Air is called a mixture because it contains nitrogen, oxygen, carbon dioxide, inert gases like helium, argon etc., water vapour and dust particles.
- a) The air composition varies from place to place and from time to time. During the rainy season the weather becomes humid as compared to summer season. This is because air contains more vapour than summer season.
- b) No energy change occurs when the components of air are mixed whereas energy changes occurs in the formation of compounds.
- c) Air cannot be represented by formula as its constituents are not in a fixed proportion.
- d) The components of air cannot be separated by physical methods. It only can be separated by physical methods.
- e) The components of air retain their individual properties.

b) The main components of air are and their volume:

Nitrogen - 78%

Oxygen - 21%

Carbon Dioxide - 0.03% to 0.04%

Inert gas - 0.9%

Water vapour - Varies

Dust particles - Varies

1) a) Small droplets of water on the surface of the glass tumbler.

b) It gets extinguished after sometime.

c) The lime water turns milky white.

d) Dust particles can be seen floating in air.

S a) Calcium hydroxide -  $\text{Ca}(\text{OH})_2$

b) Calcium carbonate