

Homework

~~Ans- The earth is surrounded~~

Exercise - 1

1. Ans- The earth is surrounded by a thick layer of air called the atmosphere that extends upto a height of about 320 kilometres above the surface of the earth.
2. Ans- We can't see air because it is colourless, odourless and transparent gaseous matter.
3. Ans- Fast moving air is called wind.
4. Ans- Without atmosphere life would not be possible as atmosphere protects us from harmful gases. We could not live without air ~~per~~ present in the atmosphere. In the absence of atmosphere, earth would get so cold at night that we would not be able to survive. No CO_2 and N_2 for plants without atmosphere.
5. Ans- Air is a mixture because:
 1. Air has no formula, a mixture has no formula whereas compounds have their own formula.
 2. No energy changes are involved when air forms.
 - ~~3. When air is formed, each~~
 3. The components of air retain their individual properties like a mixture while a compound doesn't.

4. The composition of air changes in respect to time and place while composition of compounds doesn't change with respect to time and place.
5. Components of air can be separated by simple physical methods.

6) Ans- Main components of air are:

i) Nitrogen ii) Oxygen

Composition of air by volume:

Nitrogen: 78%

Oxygen: 21%

Carbon dioxide: 0.03-0.04%

Inert gases: 0.9%

Water vapour: Varies

Dust particles: Varies

Other impurities: Varies.

7) Ans- a) We will observe that fine water droplets get deposited on the outer wall of the glass ~~tumbler~~ tumbler.

b) The candle burns more brightly because candle gets oxygen support in burning.

c) When CO_2 gas is passed through lime water it forms calcium carbonate which is white precipitate (turbidity). This gives the milky white appearance to the solution.

d) We will observe randomly moving dust particles in the

beam of light. This confirms the presence of dust particles in the air.

8) Ans

- a) Calcium hydroxide — Ca(OH)_2
- b) Calcium carbonate — CaCO_3