

Board – CBSE

Class –6

Topic – Air around us ( question - answer)– als and

## Question 1.

What are the properties of air?

### Answer:

- Air occupies space.
- Air is present everywhere around us.
- Air has no colour and one can see through it.
- It is transparent.

## Question 2.

What is atmosphere?

### Answer:

Our earth is surrounded by a thin layer of air. This layer is called atmosphere. It extends up to many kilometres above the surface of the earth.

## Question 3.

Why is atmosphere called the place where exchange of gases in nature occurs?

### Answer:

We know that various gases are found in air. Now some organisms live on land, some in water and some deep under the soil. But all need oxygen to respire. The terrestrial organisms take oxygen from the atmosphere. You know that during respiration by living beings and burning of materials, carbon dioxide is produced along with some other gases. Also  $\text{CO}_2$  is used by the plants in the process of photosynthesis in which oxygen is released. All gases go into the atmosphere. Thus, it is a place in nature for gaseous exchange

## Question 4.

What do you mean by relative humidity?

### Answer:

The content of water vapour in the air is expressed in terms of humidity or relative humidity.

## Question 5.

The mountaineers carry oxygen cylinder with them while climbing high mountains. Why?

**Answer:**

The availability of air decreases gradually as we go up in the atmosphere.

**Question 6.**

How will you prove that air is a mixture of several gases and not a compound?

**Answer:**

The following points show that air is a mixture:

1. The composition of air varies slightly from place to place.
2. Different components of air are separable by physical processes.
3. Different components of air exhibit their characteristics, for example,  $O_2$  in air supports combustion,  $CO_2$  in air turns lime water milky.

**Question 7.**

Name the substances which are present in traces in air. What are these together called?

**Answer:**

Xenon (Xe), Krypton (Kr), Neon (Ne) and Helium (He) are present in traces in the air.

These together form 0.02% of air and are called inert gases.

**Question 8.**

Describe the composition of air.

**Answer:**

Air contains mostly nitrogen (78.03%) and oxygen (20.99%). The remaining 1% (by volume) is shared by argon (0.34%), carbon dioxide (0.33%), other noble gases, oxides of nitrogen and sulphur etc., in the decreasing order.

**Question 9.**

What will happen if the amount of oxygen is increased in the air?

**Answer:**

Air will become more combustible and many substances may undergo fast oxidation.

**Question 10.**

Why are fine hair and mucus present in our nostrils? Why should we not breathe in by

mouth?

**Answer:**

We inhale air when we breathe through our nostrils. We also know that air contains dust particles. To prevent dust particles from getting into the respiratory system, fine hair and mucus are present inside the nose.

Since, our mouth does not contain the above discussed barriers of dust, so if we breathe through it, dust particles may enter in our respiratory tract. That is why breathing through mouth is not suggested.

**Question 11.**

Name the gases present in air. Which one of them is most abundant?

**Answer:**

$N_2$ ,  $O_2$ , Ar (argon),  $CO_2$ , water vapour, neon (Ne), helium (He), krypton (Kr), xenon (Xe) are present in air. Nitrogen is most abundant.

**Question 12.**

Name the vital component of air. Specify its importance.

**Answer:**

Oxygen is regarded as the most important and vital component of air. The living beings take in oxygen (respiration) and give off carbon dioxide. The oxygen used is replaced by plants through photosynthesis. The concentration of oxygen in the air is thus maintained.

Thus, it is very important to sustain life on the earth

**Question 13.**

Why do we feel suffocated in a closed room if something is becoming there?

**Answer:**

We feel suffocated in a closed room if some material is burning there because burning causes excess of carbon dioxide and its accumulation causes suffocation.