



CLASS: VI

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SUBJECT: Science

L11- Air Round Us.

Key Words:

1. Atmosphere 2. Carbondioxide 3. Composition of air 4. Oxygen 5. Nitrogen 6. Smoke 7. Windmill

Pre Activity

Draw a chart showing composition of air (T.B. Pg no.151)

I. VERY SHORT ANSWER QUESTIONS:

1. What is the source of oxygen gas in air?

Ans: Photosynthesis by green plants is source of oxygen gas in air.

2. Mention one necessary condition for the combustion to take place.

Ans: Presence of air(oxygen).

3. Name a device which uses wind energy to generate electricity.

Ans: Windmills use the wind energy to convert wind energy into electrical energy.

II. SHORT ANSWER QUESTIONS:

1. Mention any two advantages of wind energy.

Ans: Uses of Wind Energy are: (i) Wind energy is used to pump the ground water. (ii) Wind energy is used to generate electricity with the help of windmills

2. Mention two uses of air.

Ans: The two uses of air are as below:

(a) For respiration all organisms need air. (b) For burning of any substance air is needed.

3. Why does a lump of cotton wool shrink in water?

Ans: Sufficient volume of air is present in the cotton wool. When dipped in water, this air is replaced by less volume of water, so it shrinks.

4. Why is carbon-dioxide gas used to extinguish fire?

Ans: It is because carbon-dioxide does not support combustion. When sprayed on burning object it stops the supply of oxygen and extinguishes fire.

5. Explain why mountaineers carry oxygen cylinders with them?

Ans: As you go up, above the sea-level the atmospheric pressure goes on decreasing and the amount of oxygen also decreases at higher altitude. The mountaineer may feel difficulty in respiration, hence oxygen cylinder is carried with them.

6. Describe balance of oxygen in the air.

Ans: The oxygen is used by the organisms present in air, water or soil or on earth for their respiration. During respiration carbon dioxide gas is released to air. But green plants during photosynthesis use carbon dioxide of air for preparing food and they release oxygen gas in the air. Thus the balance of oxygen in air is maintained.

7. You must have seen during rainy season, when it rains the animals like earthworm, snakes, snails etc. are commonly seen. Explain why?

Ans: All these animals live in underground burrows or remain buried in the soil. They get oxygen from air that enters into the burrow through entrance of burrow or through pores in the soil. But when it rains, the water gets filled in their dwelling places and pores of the soil. So, they come out in search of air.

8. What is the composition of air?

Ans: Air contains some water vapour, dust particles and gases. The gases in air are mainly nitrogen, oxygen, small amount of carbon dioxide, and many other gases. In fact, nitrogen and oxygen together make up 99% of the air. The remaining 1% is constituted by carbon dioxide and a few other gases, water vapour and dust particles.

III. Long Answer the following:

1. How will you prove that air supports burning?

Ans: Place a burning candle upright in a tray having water. Cover it with a glass jar. Water will make it air-tight. During burning, oxygen is consumed and carbon-dioxide is released. After sometime no oxygen is left inside the jar and flame goes out. It shows air support burning.

2. How will you show that air is dissolved in water?

Ans: Take some water in a glass vessel or beaker. Heat it slowly on a tripod stand. Look carefully at the inner surface of the vessel, before reaching to its boiling point, the bubble of air start rising from bottom to surface. These bubbles come from the air dissolved in water.

3. List five activities that are possible due to the presence of air.

Ans: 1. Living beings use air for respiration.

2. Plants use air (carbon dioxide) to prepare their food.

3. Blowing air (wind) is used for power generation by wind mills.

4. Air helps in burning of fuels and substances.

5. Air helps in the scattering of seeds and pollens of plants.

6. Air helps in the movements of sailing yachts, gliders, parachutes and aeroplanes.

4. How do plants and animals help each other in the exchange of gases in the atmosphere?

Ans: There is the interdependence of plants and animals. Plants and animals respire i.e. they intake oxygen and gives out carbon dioxide in the atmosphere. Plants take carbon dioxide from the atmosphere and prepare food and return oxygen to atmosphere by the process of photosynthesis. So, in this way plants and animals help each other in the exchange of gases in the atmosphere.

POST ACTIVITY: Draw a diagram to show that Air occupies space.



