

## Exercise - 11

1. Ans- Two processes supported by oxygen present in air are:

1. Combustion
2. Respiration.

2. Ans- a) Oxygen: For respiration and breathing no life is possible without oxygen.

Oxygen is the most vital component which is responsible for two most important processes,

- i) Respiration and
- ii) Combustion.

b) Nitrogen: Present in air gets fixed up in the soil as nitrates used by plants for their growth and for the formation of protein an ~~impre~~ important nitrogenous products.

c) Carbon dioxide: Carbon dioxide is used by plants to prepare their food by photosynthesis. Dry ice (solid carbon dioxide) is used as a refrigerant. Carbon dioxide is used to prepare fizzy drinks like soda water.

d) Water vapour: Water vapours present in air provide moisture for both plants and animals. It also helps in predicting climatic conditions of a

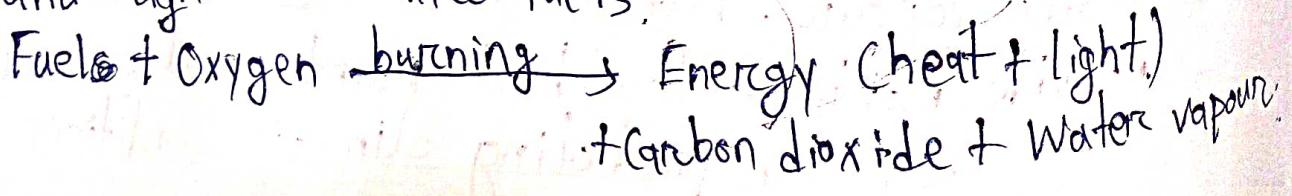
a particular area as its ~~important~~ amount varies from place to place and time to time.

3. a) Respiration: Respiration is a chemical process that takes place in all living beings (slow in plants). In this process, oxygen present in inhaled air reacts with the digested food material in the body. This results in release of energy, carbon dioxide and water.
- $$\text{Sugar} + \text{Oxygen} \rightarrow \text{CO}_2 + \text{Water} + \text{Energy}$$

- b) Photosynthesis: Process of producing food by green plants taking  $\text{CO}_2$  from air, water from soil by roots and in presence of sun light and ~~in~~ chlorophyll is called photosynthesis.

- c) Combustion: combustion also called burning "is burning of substance in oxygen of air ~~not~~ completely producing heat and light, is called combustion."

4. Ans Fuels: The substances which burn in air to produce large amount of energy in the form of heat and light are called fuels.



### Examples:

1. CNG (Compressed natural gas)
  2. LPG (Liquified petroleum gas)
- 5.
- a) Aquatic animals and plants use oxygen dissolved in water and survive.
  - b) Oxygen is necessary for combustion when covered with a glass tumbler supply of oxygen stops.
  - c) For artificial respiration mountaineers carry oxygen cylinders as at higher altitudes, the air is thin and breathing becomes difficult. Also divers carry oxygen cylinders for artificial respiration as there is less oxygen dissolved in water (less dense) and breathing becomes difficult.
  - d) These bubbles come from the air dissolved in water which is used by marine life in seas and oceans.