

Exercise-11

4) Name two important processes supported by ~~oxygen~~ oxygen present in air.

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

- ★ Combustion
- ★ Respiration

2) Give two uses of the following components present in air:

a) Oxygen:- For respiration and breathing no life is possible without oxygen. Oxygen is the most ~~vital~~ vital component which is responsible for two most important processes,

- i) Respiration and
- ii) Combustion

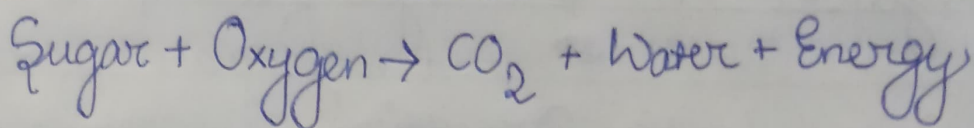
b) Nitrogen:- Present in air gets fixed up in the soil as nitrates ~~is~~ used by plants for their growth and for the formation of protein an important nutrient for animals. It is used to make fertilizers and various nitrogenous products.

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 & soda water.

d) Water vapour :- ~~Water~~ Water vapours present in air provide moisture for both plants and animals. It also helps in predicting climatic conditions of a particular area as its amount varies from place to place and time to time.

3) Define the following:

a) ~~Respiration~~ 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 ~~the~~ release of energy, carbon dioxide and water.



b) Photosynthesis :- Process of producing food by green plants taking CO_2 from air, water from soil by roots and in presence of sun light and chlorophyll is called photosynthesis.

(2) (10) (2)

c) Combustion:- Combustion also called burning is burning of substance in oxygen of air completely producing heat and light is called combustion.

4) What are fuels? Give two examples of modern fuels.

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 (Liquefied natural gas)

5) Give reasons

a) Aquatic animals and plants are able to survive in water.

Ans) Aquatic animals and plants use oxygen dissolved in water and survive.

b) A burning candle stops burning if covered with a glass tumbler.

Ans) Oxygen is necessary for combustion when covered with a glass tumbler supply of oxygen stops.

c) Mountaineers and divers carry oxygen cylinders with them.

Ans) For artificial respiration mountaineers carry oxygen cylinders as at high altitudes, the air is thin and breathing becomes difficult. Also divers carry artificial respiration as there is less oxygen dissolved in water (less dense) and breathing becomes difficult.

d) When water is heated, we see bubbles rising up.

Ans) These bubbles come from the air dissolved in water. The marine life uses air dissolved in water.