

Sakarbai Khimji Ramdas Memorial English Medium School
Mandvi –Kutch
Std : IX

Sub : Science

Ch: 14. Natural resources

❖ Answer the following question.

1. What are the different states in which water is found during the water cycle?

Ans. Water is found in all three states like

⇒ A solid-state (Snow, ice)

⇒ Liquid state (river water, underground water)

⇒ Gaseous state (water vapour)

2. Name two biologically important compounds that contain both oxygen and nitrogen.

Ans. ⇒ DNA (Deoxyribonucleic Acid)

⇒ RNA (Ribonucleic Acid)

⇒ Amino acids

3. List any three human activities which would lead to an increase in the carbon dioxide content of air.

Ans. ⇒ Breathing process where Carbon dioxide is released

⇒ Burning of petrol, coal, and fuel

⇒ Using fridge, air conditioners, and oven

4. What is the greenhouse effect?

Ans. Gases like Carbon dioxide and methane trap sun's radiation and does not allow it to go back and hence causing warming of the atmosphere, resulting in the greenhouse effect.

5. What are the two forms of oxygen found in the atmosphere?

Ans. Oxygen is present in two form

⇒ Diatomic molecular form (O₂)

⇒ Triatomic molecular form (O₃)

6. Why is the atmosphere essential for life?

Ans. ⇒ The atmosphere is constituted of various main gases like O₂, N₂, and CO₂ which are the basis of living of microorganisms, plants, and animals.

⇒ Photosynthesis is due to earth's atmosphere

⇒ The constant temperature of the earth is the cause of the earth's atmosphere

⇒ Processes like respiration, burning, and combustion are due to the atmosphere

⇒ The atmosphere is the main reason to restrict UV rays into the earth.

7. Why is water essential for life?

Ans. ⇒ All the biological activities are respiration, digestion and other biological reactions are supported by water

⇒ Living beings are composed of more than 70% of water

⇒ Transportation of substances from one form to another takes place due to the presence of water.

8. How are living organisms dependent on the soil? Are organisms that live in water totally independent of soil as a resource?

Ans. All living organisms on the earth directly or indirectly dependent on soil for a living. Plants obtain water and minerals through the soil and prepare their food. Other living organisms that live in water are entirely not totally independent of soil because the microbes growing on the soil

in water are the primary producers. Primary producers are the main and chief element of the food chain. Various microbes found in soil help in the decomposition of dead plants and animals in water which helps in returning the nutrients and elements back to the water.

9. You have seen weather reports on television and in newspapers. How do you think we are able to predict the weather?

Ans. Weather is studied as the collection of various elements like high and low temperatures, humidity, rainfall, wind speed and more using various figures and facts with relevant instruments. Hence on the data collected by the meteorologists, we are able to forecast the weather.

10. We know that many human activities lead to increasing levels of pollution of the air, water-bodies and soil. Do you think that isolating these activities to specific and limited areas would help in reducing pollution?

Ans. Human activities are the main reason for the pollution in the air. Air is the medium to spread the pollutants into various sources like water and soil. Hence we can say that limiting activities certain place will definitely help the air pollution to be controlled to some extent.

11. Write a note on how forests influence the quality of our air, soil and water resources.

Ans. **Air:**

- Forests help in purifying the air by absorbing all kinds of pollutants.
- Forests help in increasing the oxygen level in the air by absorbing carbon dioxide during photosynthesis.
- Transpiration helps to maintain the temperature of the surrounding and helps in the formation of clouds.

Soil:

- Plants in forest hold the soil thereby preventing soil erosion.
- Adds nutrients to the soil as a lot of vegetation present in the forest gets decomposed.

Water:

- Forest helps in bringing rain and increasing the level of water in underground levels