

# NCERT solutions of class 9 chapter 14-Natural Resources

## NCERT Solutions of class 9 science

Chapter 1-Matter in our surroundings

Chapter 2-Is matter around us pure?

Chapter3- Atoms and Molecules

Chapter 4-Structure of the Atom

Chapter 5-Fundamental unit of life

Chapter 6- Tissues

Chapter 7- Diversity in living organism

Chapter 8- Motion

Chapter 9- Force and laws of motion

Chapter 10- Gravitation

Chapter 11- Work and Energy

Chapter 12- Sound

Chapter 13-Why do we fall ill ?

Chapter 14- Natural Resources

Chapter 15-Improvement in food resources

Last years question papers & sample papers

Study notes of Maths and Science NCERT and CBSE from class 9 to 12

## NCERT solutions of class 9 chapter 14-Natural Resources

Page 193

**Q1. How is our atmosphere different from the atmosphere on venus and mars?**

Ans. The atmosphere consists of the gases oxygen, nitrogen and carbon dioxide and a few gases in small quantity like helium and argon, overall there is a balanced composition of earth's atmosphere making it only one living planet in the solar system. The atmosphere of Venus contains carbon dioxide and clouds of sulphuric acid while the atmosphere of Mars contains argon and carbon dioxide.

**Q2. How does the atmosphere of the earth act as a blanket?**

Ans. The earth's atmosphere regulates the temperature of the earth, at the day time it prevents the sudden rise of temperature and at night it slows down the escape of heat more over the ozone layer also prevents us by the transmission of the sun's dangerous ultraviolet rays.

**Q3.What causes winds?**

Ans. The sunlight falls unevenly on the earth, at the equator the Sun rays are straight and in the poles, these incidents slantly, hence due to the temperature differences there becomes high and low-pressure zone in two places causing the wind flow from one area to another.

**Q4. How are clouds formed?**

Ans. In the earth, the water of the river, lake, well and ocean evaporated by the sun, these vapours rise up to a certain height and the temperature of vapour cool down and transforms into little water droplets by the process of condensation, these water vapour in bulk forms cloud.

**Q5. List any three human activities that you think would lead to air pollution.**

Ans. Three human activities which are responsible for increasing air pollution are following

- (i) Release of carbon dioxide from the vehicles and electric plants.
- (ii) The release of sulphur dioxide, nitrogen oxide etc from the chemical factories.
- (iii) Burning of woods, coal and junks

Page 194

**Q1. Why do organisms need water?**

Ans. The organism needs water for the following activities in the organisms.

- (i) The water is needed for the process of photosynthesis in plants.
- (ii) The water is needed for the transportation of minerals and other nutrients.
- (iii) Water is needed for the process of respiration.
- (iv) All the cellular activities are accomplished in presence of water
- (v) The water dissolves all the toxic material and helps them to excrete

**Q2. What is the basic source of water in the city/town/village where you live?**

Ans. The basic source of water in the city/town/village are rain, snow fall, river, ponds, lake, well and underwater

**Q3. Do you know of any activity which may be polluting the source of water?**

Ans. The dumping waste material, the activities like washing cloths and bathing in the river .

The release of chemicals to the river and acid rain due to the release of harmful gases added the pollution in all the water bodies.

The drainage of Sewage merges into the river.

Page 201

**Q1. What are the different states in which water is found during the water cycle?**

Ans. The water is found in all three states during water cycle.

In solid states it is found in the form of ice on the mountain. In liquid states it is found in well, river, underground and ocean, in gaseous state it is found in the form of vapour in the atmosphere and clouds.

**Q2. Name two biologically important compounds that contain both nitrogen and oxygen.**

Ans. (i) DNA- Deoxyribonucleic acid (ii) Ribonucleic acid

**Q3. List any three human activities which would lead to an increase in the carbon dioxide content of the air.**

Ans. (i) Burning of LPG, woods and charcoal for cooking.

(ii) Burning of fuel like coal, petroleum products releases carbon dioxide

(iii) Deforestation decreases the utilization of carbon dioxide.

**Q4. What is the greenhouse effect?**

Ans. The molecules of the gases like carbon dioxide and methane trap the sunlight in the earth. Usually, 30% of the total incoming radiations of the sun is reflected back to space, the reduction in this amount due to the presence of these gases leads to an increase in the earth's average temperature which is known as the greenhouse effect.

**Q5. What are the two forms of oxygen found in the atmosphere?**

Ans. In the earth oxygen is found in two forms

In diatomic form ( $O_2$ ) it is known as oxygen gas

In triatomic form ( $O_3$ ) it is known as ozone gas.

## **Exercise**

**Q1. Why is the atmosphere essential for us?**

Ans. The earth's atmosphere contains the gases oxygen, nitrogen and carbon dioxide, these are the gases that are required for the survival of all organisms on the earth.

The most important activity is photosynthesis which occurs in the presence of carbon dioxide taken from the atmosphere.

The earth's atmosphere regulates the temperature of the earth, oxygen is needed us for the process of respiration and combustion.

In the soil microbes convert atmospheric nitrogen into nitrogenous compounds which is taken by the plants

Our atmosphere saves us from the ultraviolet rays of the Sun which causes skin cancer.

**Q2. Why is water essential for us?**

Ans. Water is essential for us to do the following activity in our body

For the process of respiration, digestion and excretion we need water. All the nutrients, minerals and fibres taken by us are dissolved and transported from one place to another by the water.

**Q3. 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 aquatic and terrestrial on the earth directly or indirectly are dependent on soil for a living. Plants gets water and minerals through the soil and prepare their food. Aquatic animals entirely not totally independent of soil because the microbes growing on the soil is transported to water bodies and exist as primary producers there also 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.

**Q4. 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.

**Q5. 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 pollutants into various sources like water and soil. Hence, we can say that limiting activities in certain place will definitely help the air pollution to be controlled to some extent.

**Q6. Write a note on how forests influence the quality of our air, soil and water resources.**

Ans: Forest maintains the life cycles in the earth by influencing the quality of air, soil and water resources through the following ways.

**Air:**

(i) Forests help in purifying the air by absorbing all kinds of pollutants.

(ii) Forests help in increasing the oxygen level in the air by absorbing carbon dioxide during photosynthesis.

(iii) Transpiration helps to maintain the temperature of the surrounding and helps in the formation of clouds.

**Soil:**

(i) Plants in forest hold the soil thereby preventing soil erosion.

(ii) 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

FUTURE STUDY POINT