

NCERT SOLUTIONS

CLASS VIII SCIENCE

CHAPTER-18

Question-1

POLLUTION OF AIR AND WATER

State the different ways in which water is contaminated.

Answer:

The different ways in which the water is contaminated are:

- i) **Industrial waste:** The harmful chemical wastes, released by the industries into water sources and pollutes the water.
- ii) **Sewage waste:** kitchen, laundry and toilet release the waste materials that are responsible for polluting water.
- iii) **Agricultural chemicals:** Excessive amount of pesticides and fertilizers are used by the farmers for enhancing crop production. Rains and floods contain harmful chemicals carried away to water bodies and pollute the water.

Question-2

What are the steps you could take to reduce air pollution?

Answer:

The following are the steps taken for reduction of air pollution:

- i) We should avoid the usage of personal cars and opt public transport as much as possible.
- ii) We should properly dispose the garbage and not burn it.
- iii) For shorter distances, avoid vehicles.
- iv) We should control the amount of emissions from household chimneys and vehicles.
- v) We should replace our vehicle fuel, diesel and petrol by LPG and CNG.

Question-3

Do you agree that clean, transparent water is always fit for drinking?

Answer:

No, we don't agree to the statement that clean water is always fit for drinking because water might appear clean but it may contains some disease causing micro-organisms and several other dissolved impurities. Hence, we advised to purify the water by boiling or by any purifying system before drinking it.

Question-4

Suppose in your town, you are a municipal body member. What are the measures taken by you that help your town to ensure the supply of clean water to all the residents?

Answer:

The following are the measures taken by us to ensure the supply of clean water to our town resident:

- a) We clean the area around the water pipes.
- b) The main water source has to be built in a clean surrounding, and should be maintained properly.
- c) Chemical methods such as chlorination must be used for purifying water.

Question-5

Differentiate between pure air and polluted air.

Remove Watermark Now

Answer:

The composition of pure air contains 78% nitrogen, 21% oxygen and 0.03% carbon dioxide. Beside these, there are some other gases like methane, argon, ozone and water vapors' are present. The air is said to be polluted, when the composition of air is altered by the addition of harmful substances or gases such as sulphur dioxide, carbon monoxide, nitrogen dioxide and particulate matter.

Question-6

What do you mean by the acid rain? What are its effects?

Answer:

Sulphur dioxide and nitrogen dioxide are the type of pollutants, which is released into the atmosphere by the burning of fossil fuels like diesel and coal. These pollutants react with the water vapours present in the atmosphere to form nitric acid and sulphuric acid respectively. By precipitation, these acid come down and forms the acid rain.

Effects caused by the acid rain:

- a) It destroys the crops.
- b) Harmful for the building especially those made of white marble like the Taj Mahal.

Question-7

Among the following gases, which is not a greenhouse gas?

- a) Sulphur dioxide
- b) Carbon dioxide
- c) Nitrogen
- d) Methane

Answer:

- c) Nitrogen

Question-8

What do you mean by the Greenhouse Effect?

Answer:

Greenhouse effect is the cause of global warming, i.e. overall increase in the temperature of the Earth. The greenhouse gases cause the greenhouse effect. Examples of greenhouses gases include methane, CO₂ and water vapour. When solar radiation reaches the Earth, some radiations are absorbed by the Earth and then released back to the atmosphere. Greenhouse gases present into the atmosphere trap these radiations and do not allow the heat to leave. This helps our planet in keeping itself warm and thus helps in human survival. However, an indiscriminate increase for gases can lead to excessive increase in the Earth's temperature leading to global warming.

Question-9

Write a brief note on Global warming.

Answer:

The increase in the average temperature of the Earth's surface is known as Global warming. It occurs due to the increased

concentration of greenhouse gases in the atmosphere. The greenhouse gases include methane, CO₂, and water vapour. These gases trap the solar radiations released back by the earth, which results in keeping our planet warm and helps in human survival. However, an increase in these gases can lead to an increase in the earth temperature resulting in global warming.

Question-10

What are the threats to the beauty of Taj Mahal?

Answer:

The major threat to the Taj Mahal is the acid rain. When the acid rain falls on the Taj, which is completely made of marble, they react with marble to form a powder like substance which is then washed away by the rain. This phenomenon is known as marble cancer. In addition, the soot particles emitted from the Mathura oil refinery located near Agra is leading to the yellowing of Taj Mahal marble.

Question-11

Why does the increased level of nutrients in the water affect the survival of aquatic organisms?

Answer:

An increase in the level of nutrients in water body leads to an excessive increase in the population of algae in the water body. When these algae die, they serve as food for de-composers. A lot of oxygen is utilized in this process, consequently leading to a decrease in the level of oxygen dissolved in the water body. This in turn causes fishes and aquatic organisms to die.

