

Pollution

EXERCISE [PAGE 61]

Exercise | Q 1.1 | Page 61

Following are some statement about pollution which type of pollution do those express?
Fog seems to be appearing in Delhi during day hours.

Solution: Air pollution

Exercise | Q 1.2 | Page 61

Following are some statement about pollution which type of pollution do those express?
Many times, vomiting and dysentery occurs after eating 'pani puri'

Solution: Water pollution

Exercise | Q 1.3 | Page 61

Following are some statement about pollution which type of pollution do those express?
Problem of sneezing occurs sometimes during visit to garden.

Solution: Air pollution

Exercise | Q 1.4 | Page 61

Following are some statement about pollution which type of pollution do those express?
Crop does not grow up in some areas.

Solution: Soil pollution

Exercise | Q 1.5 | Page 61

Following are some statement about pollution which type of pollution do those express?
People living in the busy squares face the problems like short breathing and other respiratory problems.

Solution: Air pollution

Exercise | Q 2 | Page 61

Read the passage and identify the sentences expressing types of pollution.

Nilesh is a student of std. VIII and lives in urban area. It takes about an hour to go to the school by bus. He faces the heavy traffic of two wheelers, four wheelers, rickshaws,

buses while going to school. He is facing the problem of asthma since to stay away from urban area. Since then, his mother sent him to the village of his maternal uncle. Nileshe saw the heaps of garbage of many places in village. Foul smell of human and animal wastes was present at many places. Blackish water with foul smell was flowing in a stream. He developed some abdominal disease within a few days.

Solution: Nileshe is a student of std. VIII and lives in urban area. It takes about an hour to go to the school by bus. He faces the heavy traffic of two wheelers, four wheelers, rickshaws, buses (**Air pollution**) while going to school. He is facing the problem of asthma (**Air pollution**) since to stay away from urban area. Since then, his mother sent him to the village of his maternal uncle. Nileshe saw the heaps of garbage in many places in village. Foul smell of human and animal wastes (**Air and soil pollution**) was present at many places. Blackish water with foul smell (**Water pollution**) was flowing in a stream. He developed some abdominal disease (**Water pollution**) within a few days.

Exercise | Q 3 | Page 61

Match the pairs from 'A' and 'B' columns and explain the effect of pollution on human health.

Column 'A'	Column 'B'
1. Water containing cobalt	a. Mental retardation
2. Methane gas	b. Paralysis
3. Water containing lead	c. Inflammation of lungs.
4. Sulphur dioxide	d. Skin cancer
5. Nitrogen dioxide	e. Irritation of eyes

Solution:

Column 'A'	Answer
1. Water containing cobalt	b. Paralysis
2. Methane gas	d. Skin cancer
3. Water containing lead	a. Mental retardation
4. Sulphur dioxide	e. Irritation of eyes
5. Nitrogen dioxide	c. Inflammation of lungs

Exercise | Q 4.1 | Page 61

True or false.

Water does not get polluted by washing the cloths in running water of river.

1. True
2. False

Solution: False.

Exercise | Q 4.2 | Page 61

True or false

More the use of electric appliances, more will be the pollution.

1. True
2. False

Solution: True

Exercise | Q 5.1 | Page 61

Answer the following.

What is pollution ?

Solution: Pollution is any undesirable change that takes place in the environment which is harmful to both living and non-living things.

Exercise | Q 5.2 | Page 61

Answer the following.

What are pollution ?

Solution: Pollutants are the harmful chemicals and substances that cause pollution. For example, nitrogen oxides, sulphur oxides, carbon monoxide, pesticides etc.

Exercise | Q 5.3 | Page 61

Answer the following.

What is acid rain ?

Solution: Gases such as sulphur dioxide, sulphur trioxide and nitrogen dioxide, when present in air, combine with the water droplets present in the atmosphere to form acid droplets. These droplets remain suspended in air and fall down on the earth along with rain, thereby making the rain acidic. Such rain is called acid rain.

Exercise | Q 5.4 | Page 61

Answer the following.

What is green house effect ?

Solution: The increase in the average temperature of the earth's surface due to the increase in concentration of greenhouse gases such as carbon dioxide, methane, etc. is called greenhouse effect.

Exercise | Q 5.5 | Page 61

Answer the following.

Which are visible pollution known as you ?

Solution: Pollutants which are visible to our naked eyes are called visible pollutants. For example, sewage, plant and animal wastes, pesticides, plastic, sand etc.

Exercise | Q 5.6 | Page 61

Answer the following.

Which are invisible pollutions ?

Solution: Invisible pollutants are pollutants which are not visible to our naked eyes. For example, fungi, viruses, bacteria, gases like carbon monoxide, nitrogen dioxide etc.

Exercise | Q 6.1 | Page 61

Answer the following

Give are examples of each of water, soil and air pollution from your residential area.

Solution: Sources of air pollution:

1. Burning of fuel like wood, kerosene.

Vehicular emissions from automobiles.

2. Sources of water pollution:

3. Washing of clothes in flowing water bodies.

Release of domestic sewage into water bodies.

4. Sources of soil pollution:

5. Spraying of pesticides and insecticides on plants.

Mixing of wastes of animals and plants.

Exercise | Q 6.2 | Page 61

Answer the following

How does the pollution occur due to vehicles ? Give the names of vehicles causing least pollution.

Solution: Most of the vehicles are run on fossil fuels like petrol and diesel. These fossil fuels are burnt in vehicles to produce energy which results in the production of smoke. This smoke contains harmful gases like carbon monoxide, hydrogen, nitrogen oxide, particulate matter, ammonia and sulphur dioxide.

There are various other kinds of vehicles which cause least or no pollution at all, for example. bicycle, vehicles run on CNG, electric cars, metro etc.

Exercise | Q 6.3 | Page 61

Answer the following

What are natural reasons for water pollution.

Solution: The natural reasons of water pollution are :

- Presence of aquatic weeds which depletes the oxygen content of water bodies.
- Excessive algal growth.
- Mud and sludge which are added to water bodies due to river currents and their diversions.
- Growth of microbes like bacteria and fungi on dead and decaying matter present in water bodies.

Exercise | Q 6.4 | Page 61

Answer the following

Suggest four preventive measures for air pollution.

Solution: Some of the measures that can be taken to prevent air pollution are as follows:

- (i) Use of clean fuels such as CNG, LPG and unleaded petrol in public and private transport.
- (ii) Use of renewable sources of energy such as solar, wind, and hydel energy.
- (iii) Planting more and more trees to prevent pollution.
- (iv) Preventing burning of dry leaves and using them in composting.

Exercise | Q 6.5 | Page 61

Answer the following

Explain relation between green house effect and global warming.

Solution: Greenhouse gases such as CO₂, methane, etc. are gases that absorb the heat of the Sun and the Earth and emit it back to the Earth's surface. Thus, these gases prevent a part of the heat rays from escaping into the atmosphere. This cycle is repeated several times to maintain the Earth's temperature to an optimum temperature of 15°C. Therefore, upto a normal level, greenhouse gases help in maintaining the temperature on the Earth.

However, the concentration of these gases has increased because of increased industrialization, which has lead to the heating up of the Earth's surface. As a result, the overall temperature of the Earth has increased, resulting in climatic changes. During the last century, the temperature of the Earth has increased by 0.6°C. This has lead to global warming.

The greenhouse effect can be controlled by reducing the use of fossil fuels. Fossil fuels produce greenhouse gases on burning.

Exercise | Q 6.6 | Page 61

Answer the following

Construct two slogans each on air, water and soil pollution.

Solution: It is an activity based question. Kindly do it yourself.

Exercise | Q 7 | Page 61

Classify the following pollutions into natural and manmade categories.

Sewage, dust, pollen grains, chemical fertilizers, vehicular smoke, algae, pesticides, waste of animals and birds.

Solution:

Pollutant	Category
Sewage	Man made
Dust	Natural
Pollen grains	Natural
Chemical fertilizers	Man made
Vehicular smoke	Man made
Algae	Natural
Pesticides	Man made
Waste of animal and plants	Natural