



Class: 5

Subject: Science

Lesson-13- Our Environment

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I. Key words:

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|------------------|-------------------|
| 1. biodegradable | 7. pesticides |
| 2. corrode | 8. greenhouse |
| 3. haze | 9. Global warming |
| 4. oil spill | 10. biotic |
| 5. soot | |
| 6. pollution | |

II. Pre activity: Name any 5 biotic and 5 abiotic components that you daily interact with.

III. Name the following.

Q.1. Write the names of two gases involved in breathing.

Ans- Oxygen, Carbon dioxide

Q.2. Write the names of two water-borne diseases.

Ans- Typhoid, Jaundice

Q.3. Which gases are responsible for global warming?

Ans- Methane, Carbon dioxide, Ozone, CFC, Water Vapour

Q.4. name any 3 greenhouse gases.

Ans- Methane, Carbon dioxide, Ozone

IV. Short answers questions.

Q. 1. What is greenhouse effect?

Ans- The Earth's atmosphere contains many gases. Carbon dioxide, nitrous oxide, methane and water vapour are some of the gases contained within the Earth's atmosphere. These gases trap the Sun's heat and do not let it escape into space. This heat then warms up the Earth and makes it habitable. These gases are called greenhouse gases and this effect is known as the **greenhouse effect.**

Q. 2. What is global warming? How is it related to greenhouse effect?

Ans- The air pollutants act as carriers of heat from the Sun's rays, and hence create a greenhouse effect on the entire Earth. The heat gets trapped in the Earth's atmosphere. This is constantly increasing the temperature on the Earth. This effect is called **Global Warming.**

Q. 3. What is air pollution?

Ans- The presence of pollutants in the air is called air pollution.

Q. 4. What is water pollution?

Ans- The presence of pollutants in water is called water pollution

V. Long answers questions.

Q.1. Explain greenhouse gases and lists their names.

Ans- Gases that cause the greenhouse effect are:

- **Methane:** Released by herbivores when their food is digested. Also released by fertilisers.
- **Carbon dioxide:** Biotic components exhale carbon dioxide. Burning of fossil fuels and cutting of trees release carbon dioxide.
- **Ozone:** Ozone is present in the stratosphere, which is a layer of the atmosphere. The layer in which ozone is present is called the ozone layer. The ozone layer blocks the harmful ultraviolet rays which produce harmful radiations and harm the environment.
- **Water vapour:** Released into air by evaporation and transpiration.
- **CFC (Chlorofluorocarbons):** Appliances like refrigerators, air conditioners, electrical devices tend to warm up the atmosphere.

Q.2. How is global warming caused? How is it harming the environment?

Ans- The air pollutants act as carriers of heat from the Sun's rays, and hence create a greenhouse effect on the entire Earth. The heat gets trapped in the Earth's atmosphere. This is constantly increasing the temperature on the Earth. This effect is called Global Warming.

Global warming is the reason behind the melting of ice caps and glaciers at the Earth's poles. This causes flooding in the surrounding low-lying plains and causes damage. The melting ice caps also add to the increasing temperatures which slowly affects the climate of the whole world. The effects of global warming can become even more drastic if not controlled.

Q.3. Explain the meaning of pollution. What are the steps we can take to control it?

Ans- The release of harmful substances called pollutants is pollution. We can take certain measures to control pollution. These measures are:

- We should plant more trees as they release oxygen into the air and keep the air pure.
- We should increase the use of solar energy and depend less on energy acquired by burning fossil fuels. This will reduce the amount of greenhouse gases released into the air and also reduce air pollution.
- We must stop the use of plastic bags and instead promote the use of cloth, jute bags.
- We must prevent deforestation, or limit it to a reasonable amount.
- Jars, bottles and newspapers should be recycled to make other useful things.
- Factories and chimneys should be equipped with waste treatment facilities and smoke

reduction filters.

- Pesticides and fertilisers should be used only in limited quantities in farming.
- Organic fertilisers (manure) can be used in place of chemical fertilisers.

Q.4. How is the Taj mahal affected by the pollution.

Ans- Taj Mahal is a structure made entirely of white marble. But it is slowly turning yellow. This is because the harmful pollutants in the air mix with the rainwater and produce acid rain. This acid rain is slowly ruining the quality of the white marble of the Taj Mahal. In order to save this monument, many factories have been closed down or relocated. More trees have been planted around the Taj Mahal to keep the area clean.

Post-activity- What is water pollution? How you can stop water pollution.

Subject Teacher

H.O.D.

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