

Subject: Science

Activity - Air Pollution

Chapter- Pollution of Air and Water

Class: VIII

Duration: 10 Days

Nature of the activity: Individual

Learning Outcome: Students will be able to analyse how the concentration of a polluting gas change in the environment over a period of time and suggest measures to control the concentration.

What we have to do?

To analyse the change in the amount of polluting gases in the air over a period of ten days

What do we require?

Tabulated concentration of 4 major polluting gases and 4 graph papers.

What you need to know?

Air pollution is a mixture of particles and gases that can reach harmful concentrations both outside and indoors, smoke, pollen, methane, and carbon dioxide are a just few examples of common pollutants

How do we proceed?

- **Teacher's Activity:**

Teacher will give necessary instructions to monitor the amount of polluting gases in air through Air Quality Index.

- **Student's Activity:**

1. Students will be divided into pairs.
2. Each pair will be asked to monitor the Air quality Index on Delhi Pollution control site-<http://www.dpccairdata.com>.
3. The readings will be tabulated in the table given below:
4. Each pair will thereafter, plot a Bar Graph showing fluctuations in the level of each gas

What do we observe?

Name of Gas	Day and Date	Time	Gas Concentration $\mu\text{g}/\text{m}^3$	Prescribed Level

What have you learnt?

The concentration of _____ gas affects the environment to a greater extent.

The level of harmful gases in the atmosphere can be controlled by _____

What more can we do?

- Prepare Posters with slogans sensitising people in the community about increasing Pollution Levels.
- Carrying out a campaign motivating people to switch off Car Engines at the red light, decrease the burning of fossil fuels (coal and wood) causing an increase in the level of particulate matter.
- Recording the amount of particulate matter for the same duration of 10 days and analyse the fluctuations in the level of particulate matter during the period.
- Recording the amount of Air Pollutants during different seasons and analysing the fluctuations in their levels in different seasons.

EXTENDED LEARNING WORKSHEET:

1.What do you understand by the term 'Pollutant'?

2.What are harmful effects of the Air Pollutants tabulated above on the Human Body?

3.How is Particulate matter harmful for human body? What is the unit used to measure the size of the particulate matter?

4.What steps should we take to minimise air pollution?

5.What are cleaner fuel? Why is it advised to use cleaner fuel in industries in the Taj Mahal zone in Agra?
