

NIOS lesson adaptation project

by  **Embrace** volunteers
The power within you!

(A community initiative of Harchan Foundation Trust)

CHAPTER -6 ENVIRONMENT

This project is aimed at supporting children with different needs. Information provided is adapted to the best of knowledge by the volunteers. For complete information please refer to the NIOS resources in <https://www.nios.ac.in/online-course-material/secondary-courses.aspx>.

K - What does the child KNOW	W - What does the child WANT to know	L - What has the child LEARNT
	Pollution and pollutant	
	Types of pollution	
	Effects of pollution on environment and health	
	Measures for controlling pollution	
	Process of waste disposal	

KEYWORDS and MEANINGS

KEYWORD	MEANING
Combustion	The act or process of burning.
Sewage	Type of waste water produced by people.
Solvents	A liquid used for dissolving other substance.
Silencers	A device used to reduce the sound.
Smog	Pollutant which is combination of smoke and dust in air

Pollution and pollutant

■ Pollution

Addition of any substance to environment in excess which is harmful



■ Pollutant

Substance which causes pollution



Categorization /Types of pollution

1. Air pollution -Imbalance in oxygen and carbon dioxide in air



2. Water pollution-Not suitable for drinking.



3. Soil pollution -Presence of chemicals.



4. Noise pollution -Unpleasant sound around.





Spray paints
and fumes

Natural

Volcanoes ,
Forest Fires



Solvents

Sources of air pollution

Combustion

Smoke



Pesticides &
Insecticides

Agricultural

Industrial



Smoke , poisonous gas

Effects of Air Pollution

Human Beings

- Eye infections
- Respiratory tract infections.
- Skin Allergies



Plants

- Decrease in food production



Environment

- Poor visibility.
- Rise in Temperature
- Destruction of vegetation



Ways to control air pollution

➤ Use smokeless Chulha.



➤ Use Bio gas.



➤ Use of Solar cooker



➤ Factories should have chimney filter.



➤ Factories should be away from residential area.

Ways to control air pollution

- Vehicles should be fitted with special devices .
- Use unleaded petrol and CNG for transport
- Garbage should not be burnt , disposed through sanitary landfills
- Pucca roads to avoid dust in air .
- Planting trees.
- Crops should be grown throughout to avoid erosion



Water pollution

We say water is polluted when :

- ✓ It is colored.
- ✓ Have suspended particles
- ✓ With Foul smell and bad taste



Sources of water pollution

❖ Domestic wastes

- Bathing animals and washing clothes in harvested water
- Washing self after defecation in harvested water.
- Disposal of garbage in water



❖ Industrial waste

- Waste material which comes from factories.
- Harmful and toxic substance flows to river, ponds and sea.



Sources of water pollution

❖ **Agricultural waste**
Chemical fertilizers ,
pesticides



❖ **Oil Spills**

- Oil spills from oil tanker.
- Spills over large area of sea



Effects of water pollution

Water pollution can Cause:

- Diseases like cholera, typhoid, diarrhea and dysentery
- Bathing in polluted water causes skin diseases and allergies
- Polluted water affects plants and animals

Ways to control water pollution

❖ Sewage water should not be thrown into water sources



❖ Industries should not be allowed to throw their waste to water source.



❖ Stop open defecation.



❖ Dumping pits should be away from source of water.



Ways to control water pollution

- ❖ Banning of bathing & washing clothes in harvested water sources.
- ❖ Don't use sea and river to dispose garbage.
- ❖ Ponds should have concrete or parapet wall & firm flooring
- ❖ Drinking water should be kept covered.
- ❖ Never dip your hand in drinking water, use ladle.



Soil pollution

Soil pollution is defined as

Change in physical, chemical and biological nature of soil Which has harmful effect on human beings

Effects Of Soil Pollution

Improper disposal of domestic waste



Spread of germs



Walking in bare foot

Germs enter into our body and cause diseases

Industrial & agricultural wastes



Plants & vegetables absorb



Animals & humans consume plants fall ill

How soil gets polluted

- Waste from factories.
- Insecticides , Pesticides , and Fertilizer
- Open defecation and urination
- Spitting



Ways to control soil pollution

- **Dumping outside the city limits**
- **Landfills outside the city**
- **Composting garden waste**
- **Stop burning of garden waste**
- **Incineration**
(burning garbage in special furnace)
- **Use of sanitary latrines**
- **Limited use of insecticides and pesticides**
- **Use of environment friendly products**
- **Buy only eco marked goods**



Noise pollution and its source

Any unpleasant sound is called Noise

Noise Pollution



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graph TD; A[Noise Pollution] --> B[Automobiles, Trains, airplanes]; A --> C[Loud speakers, radios, television in high volume]; A --> D[Industries and Machines]
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The diagram is a flowchart starting with a yellow box labeled 'Noise Pollution' at the top. A horizontal line with three downward-pointing arrows branches from this box to three green boxes below. The first green box on the left contains the text 'Automobiles, Trains, airplanes'. The middle green box contains 'Loud speakers, radios, television in high volume'. The third green box on the right contains 'Industries and Machines'.

Automobiles,
Trains ,
airplanes

Loud speakers,
radios, television in
high volume

Industries and
Machines

Effect of noise pollution

➤ Disturbs us.

➤ Stress

➤ Strain our nerves.

➤ Mental irritability

➤ Headache

➤ Affect hearing ability

➤ Mental disturbance

Ways to control noise pollution



Use low volume in radio and TV



Get silencers fitted to engine of vehicle



Avoid the use of loud speakers



Airport away from city limits



Use vehicle horns only when it is necessary



Factories away from residential area

List of Volunteers

Embrace-NIOS lesson adaptation project

(A community initiative of Harchan Foundation Trust)

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"volunteers don't necessarily have the time, they just have the **HEART**."

~ elizabeth andrew

Thank You
Volunteers.

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