

Lesson Number	Title of the Lesson	Skills	Activity
15	EnvironmentManagement	Creative thinking Decision Making	As an Informed Citizen prepare a talk on Environmental Conservation for your friends
		Problem solving Critical Thinking	

Summary:

Environment is defined as our surroundings. It includes air, water, land, forests, parks, buildings etc. It is true that our environment is going from bad to worse due to our irresponsible activities. If things go like this, it will soon lose its ability to sustain life. The magnitude of environmental degradation is increasing each moment. It has reached an alarming stage. Some of the unfavorable changes of our surroundings have reached a stage of no return and have contributed to environmental degradation in a big way. The sad part is that the humans are the single contributors to environmental degradation. Agreed that some natural causes like earthquakes, floods also contribute to environmental degradation, but careless and callous activities of humans have done more harm. Still, all is not lost. There is a ray of hope. We can still save the earth by ecofriendly practices and products. Safety and preventive measures to be taken during production of products and treating of waste before disposal. For this movement to gain momentum, Governments have a big role to play. They must make strict rules against environmental pollution and degradation. They also must motivate individuals so that each one contributes to make the earth a better place to live.

Principal Points

Causes of Environmental Degradation

Uncontrolled Population	Technical Advancement	Poor Agricultural practices	Improper personal habits	Natural causes-causing soil, water & air pollution
<ul style="list-style-type: none"> • More demand for food, fuel and space 	<ul style="list-style-type: none"> • Industries causing toxic chemical pollution 	<ul style="list-style-type: none"> • Over grazing 	<ul style="list-style-type: none"> • Spitting in the open- land & air pollution 	<ul style="list-style-type: none"> • Earthquakes
<ul style="list-style-type: none"> • Employment 	<ul style="list-style-type: none"> • Automobiles emitting harmful gases depleting ozone layer 	<ul style="list-style-type: none"> • Excessive use of chemical fertilizer & pesticides causing barren lands 	<ul style="list-style-type: none"> • Open defecation-land pollution 	<ul style="list-style-type: none"> • floods

• Unplanned Industrialization	• Oil spills causing marine pollution	• Over cropping leading to depletion of nutrients in the soil	• Bathing & washing clothes near water bodies- water pollution	• famine
• Urbanization	• Nuclear weapons causing radioactive pollution	• Leaving the land fallow causing soil erosion	• Smoking- air pollution	• Cyclones
• Concretization of land				• Volcanic eruptions
• Deforestation				• Forest Fire

Build your understanding

1. Different Forms of Environmental Degradation

- Soil/Land degradation
- Deforestation
- Air degradation
- Water Degradation
- Slum Conditions

2. Effects of Environmental Degradation

A. Land /Soil Degradation

Causes:

- Chemical waste from factories and mines
- Excessive use of chemical fertilizers and pesticides

Effect:

- Microorganisms which regenerate the soil get killed
- Chemicals enter the food chain and cause cancer, nervous disorders

B. Deforestation

Causes:

- Excessive cutting down of trees

Effect:

- Landslides
- Floods
- Soil Erosion
- Climate change
- Extinction of wild animals and birds

C. Air Degradation

Cause:

- Unplanned Industrialization

- Toxic emissions from factories and vehicles
- Manmade disasters like Industrial/nuclear/biological leakage

Effect:

- Acid Rain
- Depletion of ozone layer
- Global warming
- Spread of Cancer, respiratory disorders, skin allergies, watering eyes

D. Water Degradation

Cause:

- Sewage disposal in water bodies
- Untreated Industrial Waste in water bodies
- Oil spills from ships

Effects:

- Destruction of Aquatic Life
- Spread of Water borne diseases
- Spread of Cancer

E. Slums

Cause:

- Mass migrations from villages
- Lack of employment opportunities in rural areas

Effect:

- Overcrowding
- Poverty and lack of basic facilities
- Unhygienic living conditions
- Poor sewage system
- Improper garbage disposal
- Diseases and Allergies
- Noise Pollution

What is Important to Know

A. Classification of Products

<u>Non-Eco friendly</u>	<u>Eco friendly</u>
• Petrol	• Unleaded petrol
• Crude motor oil	• Double refined motor oil
• Synthetic paints	• Water based paints
• Synthetic fibers	• Natural fibers
• Polythene	• Paper & paper products
• Traditional chulahs	• Smokeless chulahs
• Tharmacol	• Biogas
	• Solar cookers/panels

	<ul style="list-style-type: none"> • Earthenware
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B. Classification of Practices

Non Eco friendly	Eco Friendly
<ul style="list-style-type: none"> • Improper disposal of garbage 	<ul style="list-style-type: none"> • Using biodegradable waste as manure
<ul style="list-style-type: none"> • Dumping domestic waste without segregation 	<ul style="list-style-type: none"> • Recycle of waste
<ul style="list-style-type: none"> • Dumping untreated industrial waste on land, water 	<ul style="list-style-type: none"> • Pollution control measures in industries & vehicles
<ul style="list-style-type: none"> • Emission of toxic gases from Industries/ vehicles 	<ul style="list-style-type: none"> • Setting up sewage treatment plants, treating toxic fumes before releasing.
<ul style="list-style-type: none"> • Open defecation 	<ul style="list-style-type: none"> • Constructing SulabhShauchalayas
<ul style="list-style-type: none"> • Deforestation 	<ul style="list-style-type: none"> • Afforestation on a massive scale

Did you know

Steps For Environmental Conservation

A. At Home

- Adopt 4 Rs that is Reuse-Recycle-Reduce-Refuse
- Use solar energy for cooking and lighting
- Maintain sanitation and Hygiene
- Avoid open defecation
- Proper disposal of household waste
- Adopt family planning norms to control population
- Avoid wastage of water
- Avoid smoking
- Avoid noise pollution

B. On The Road

- Use ecofriendly vehicles
- Practice carpooling
- Use Public Transportation
- Get vehicles checked regularly
- Use unleaded petrol or CNG

C. Contribute to Nature

- Plant trees and nurture them
- Report any illegal felling of trees
- Contribute to wildlife conservation
- Spread Awareness to go Green

Extend your Horizon

Initiatives by the Government to control Environmental Degradation

- Industries to be located away from the cities
- Strict laws for pollution
- Waste treatment plants in all industries
- Linking various industries for utilizing each other's waste
- Family Planning to be strictly adopted
- Efficient waste disposal of household waste
- Awareness drives to educate people to conserve environment
- Ensure healthy farm practices
- Afforestation
- Wildlife conservation

Evaluate yourself

- **What is Acid Rain? How is it caused?**
- **You have been appointed as a Forest Officer. What will be your first initiative to protect the forests?**

Maximize your marks:

- **Attempt all the exercises given in the lesson**
- **List three Man –Made disasters that you know which have led to environmental degradation**