

# POLLUTION - WATER AND AIR

## Subject

Basic Science

## Prepared By

[Instructor Name]

## Grade Level

4

## Overview

This lesson plan covers teaching content for;

1. Pollutants / sources of pollution
2. Effects of pollution
3. Control of pollution

## Objectives

Students should be able to;

1. Define pollution.
2. Identify and discuss different kinds of pollution
3. Identify and discuss sources of pollution
4. Discuss and explain why it is important to keep the environment free of pollution.
5. Identify and discuss ways of controlling pollution.

## Activity Starter/Instruction

1. Discuss and display pictures of water, land and air pollution.
2. Have students identify what is wrong in each of the pictures displayed.
3. Write the students responses underneath each of the pictures.
4. Remind the students that pollution is anything that harms our surroundings and that people cannot survive without clean air, water and land. Stress that pollution is a responsibility and concern of all people in every community.
5. Ask students to "Brainstorm" to compile a list of ways that they can help to stop pollution. Examples: do not put garbage into the lakes and streams, pick up litter).
6. List the students' responses on a poster titled "Let's Stop Pollution". Stress that because so many important things in the surroundings are shared by people in other communities, everyone must work to stop pollution of the air, water, and land.

## Teacher Guide

### Day 1/ Lesson 1: 15 Mins

1. Provide students with a half sheet of poster board and crayons. Have them make a poster to inform others about pollution. Display the posters around the school
2. Provide students with boxes and paint. Have them make "litter boxes" with labels and decorations that state why it is important not to litter. Place the boxes in areas around the school or home.
3. Provide students with materials to make replicas of bumper stickers illustrating warnings and laws concerning pollution. Suggestions: NO LITTERING, NO TRUCKS, NO DUMPING, NO BURNING.
4. Students will then have a variety of activities for you to teach them about the causes and effects of pollution.

## Guided Practice

### Day 3/ Lesson 3: 15 Mins

1. Half fill a jar with tap water and another jar with the same quantity of polluted water from pond, stream or river.

## Materials Required

- Pictures of water, air and land pollution on cardboards.
- Markers
- Crayons
- Posterboard / Cardboards
- Empty cartons to make litter boxes
- Poster colour
- Napkins
- Clean tissue paper
- 2 Jars
- Clean tap water
- Dirty water from pond, gutter, river, etc
- Plain papers
- Petroleum jelly (Vaseline)

## Additional Resources

- <https://aminghori.blogspot.com/2016/03/le-plan-of-effects-of-pollution-on.html>
- <http://www.lessonsnips.com/lesson/typesp>
- <https://teachers.net/lessonplans/posts/169>
- <http://onetimethrough.com/water-pollution-kids-fun-science-activities/>

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### Guided Practice

#### Day 2/ Lesson 2: 15 Mins

1. Have students wash the outside of a window that is easy to reach. A few days later (next class), let them wipe the same window with a clean tissue. Discuss possible reasons the window became dirty. (Air pollution).
2. Divide students into groups.
3. Instruct them to spread petroleum jelly on three plain papers with the help of a plastic knife.
4. Attach one paper to a clipboard and place it outside.
5. Place one paper in the classroom under the teachers' desk.
6. Place one paper near window in the classroom.
7. After a day or two (next class) compare the papers to see how pollution has effected the petroleum jelly placed at the different locations.
8. Ask students which paper has the greatest effect of pollution? What does it show?
9. Conclude the results through thinking and predictions. Explain the effects of air pollution.

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### Assessment Activity

Assess if pupils can:

1. Define pollution.
2. List the types of pollution.

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### Summary

1. Ask for volunteers to share what understand about pollution.
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2. Ask the students to compare the two waters for color, smell, transparency and suspended particles.

3. Draw the following table on board and fill it with answers given by the students.

	Colour	Smell	Transp arency	Suspended particles
Tap water				
Water from Pound				

4. Now ask the following questions from students to conclude this activity.

- Which water will you like to drink?
- What will happen if water of both jars is mixed?
- If you drink the mixed water, will it cause any disease?
- Name some diseases which may spread if the polluted water is used for drinking purpose? (Expected Ans: Typhoid, Cholera and dysentery).

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### Assessment Activity

Assess if pupils can:

1. Know the effect of pollution.
  2. Explain how pollution can be controlled.
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