

A STUDY OF POLLUTION & SAVING THE ENVIRONMENT

A THIRD GRADE LESSON PLAN

Teaching young students for a brighter, cleaner tomorrow



Third Grade Environmental Pollution Lesson Plan

INTRODUCTION

This lesson will provide students with a greater understanding of what pollution is, the negative effects on the environment and humans, what individual's responsibilities are to prevent pollution, as well as how to correct existing pollution issues.

LESSON PLAN OBJECTIVE

Educate students of the various types of pollution

- Land Litter, Chemical Spills, Abandoned Tires
- Air Car Exhaust, Factory Emissions, Cigarette Smoke, Smog
- Water Litter, Oil Spills, Fertilizer Run Off, Factories Emptying Waste

ESSENTIAL QUESTIONS:

WHAT IS POLLUTION & WHAT CAN WE DO TO HELP SOLVE THE PROBLEMS ?

Pollution is trash that is in a place that it should not be in. Some pollution is caused by an individual and can be corrected by another individual. For example one person may throw a candy wrapper on the ground, while another person can pick the wrapper up and toss it in a can. Some pollution is the result of a group of individuals making poor decisions such as factory waste being dumped into a river. This type of pollution is very costly and takes even a greater number of individuals to correct. There are three forms of pollution: land, air and water. We can remember this with the acronym LAW. Land pollution is something that harms the earth's surface, such as bottles, wrappers, and gasoline spills. Water pollution is something that makes water impure for people, animals, and plants, such as litter, oil spills, fertilizer run off, and factories emptying waste into waterways. Unfortunately, over half of the Earth's drinkable water is polluted. Air pollution is something that makes the air we breathe harmful to our bodies. Air pollution is caused by factories, cars, and fires.



LAND POLLUTION LESSON: Lesson time 15 minutes

Materials Needed: 1 Plastic Grocery Bag,
Recyclable Paper from Home

For homework the night before, have each student bring in a piece of paper they have at home that can be recycled i.e. envelop, scratch paper, newspaper page, old homework page, etc. for the following day. Begin the lesson by describing what land pollution is by giving the students examples such as litter, chemical spills, and abandoned tires. Challenge the students to think of other types of land pollution and make a list on the white board. Once the class has formulated their list introduce the land pollution activity. In this activity you would need a plastic grocery bag. One by one have each student crumple their paper and deposit it in the plastic bag and say "Littering is land pollution. I will never litter!" This lesson will work best if each student crumples their paper so that the plastic bag fills more quickly and overflows. If need be, allow the paper to fall on the floor and see what the student's response is. Do they pick it up, leave it on the ground or find another place to throw the trash? This activity represents how we only have one precious world that is quickly being filled with pollution.

Extension Idea: School Grounds Clean Up

Have each child bring a plastic grocery bag from home. (For the student's protection ask if your local store will donate inexpensive plastic gloves to wear while picking up the trash.) Discuss the importance of not picking up anything sharp like needles.) As a group, go on a treasure hunt in the school yard looking for land pollution having each child place items in their bag. Discuss the items found. To further the lesson, make a pictograph allowing each student to glue an item they found onto a piece of poster board, producing a classroom trash art project. Discuss how the children think the objects got into the school yard. Other possible ideas are to make a classroom graph of the items found.



AIR POLLUTION LESSON:

Lesson time 30 minutes

Materials Needed:

- Balloon
- Large Funnel
- Air Pump
- Small Pieces of Paper (i.e. from a hole punch)

Discuss the many types of air pollutions and what causes them: Car exhaust, factory emissions, cigarette smoke, and smog. Challenge the class to see how many forms of air pollution they can name.

Explain to the students that the balloon represents our atmosphere. Place a funnel into the opening of the balloon. (Hint: Use a funnel with a larger spout than the hole punched paper pieces. Have each student place some of the hole punched paper pieces into the funneled balloon. Explain to the students that this represents harmful particles we are all adding to our atmosphere. After all the pieces have been placed into the balloon, take an air pump and blow up the balloon. Students may take turns using the pump. Explain to the students that this too represents human contributions of pollution to the atmosphere. Keep adding air until the balloon bursts. Once the balloon bursts explain to the students that we have but one atmosphere and once it is filled with pollution it cannot be returned to its natural state. We must each take measures to care for the atmosphere and the air we breathe.

Extension Ideas: Have students complete the attached word search regarding air pollution.



WATER POLLUTION: Lesson time: 30 minutes

Materials Needed: Clear container – jar, aquarium, bowl etc.
Objects from home listed below
Picture of underwater environment enclosed or one found on the internet

For homework have each student bring a small object from home which they would not want to see in a place they might swim. These objects are called pollutants. Provide students with examples such as the following: paper cup, newspaper, small toy car, small rubber ball, soda can, small zip lock bag, etc.

Fill a clear container such as an aquarium, large jar, bowl, etc. with clean water. Tape an underwater image on the container so that students view the image through the water filled container. The water filled container represents the water before pollution. One by one have students place their objects into the water. Explain how each item represents a form of water pollution which is hurting the environment. Would you want to drink or swim in this water? Why?

Extension Ideas:

Make a drawing with hidden pictures of pollution.

Draw pictures of pollution.

Tally how many different types of pollution you see during the week (water, land, air). During the week, make a graph of the pollution that was tallied for the homework. Write ways to solve the pollution that was observed.



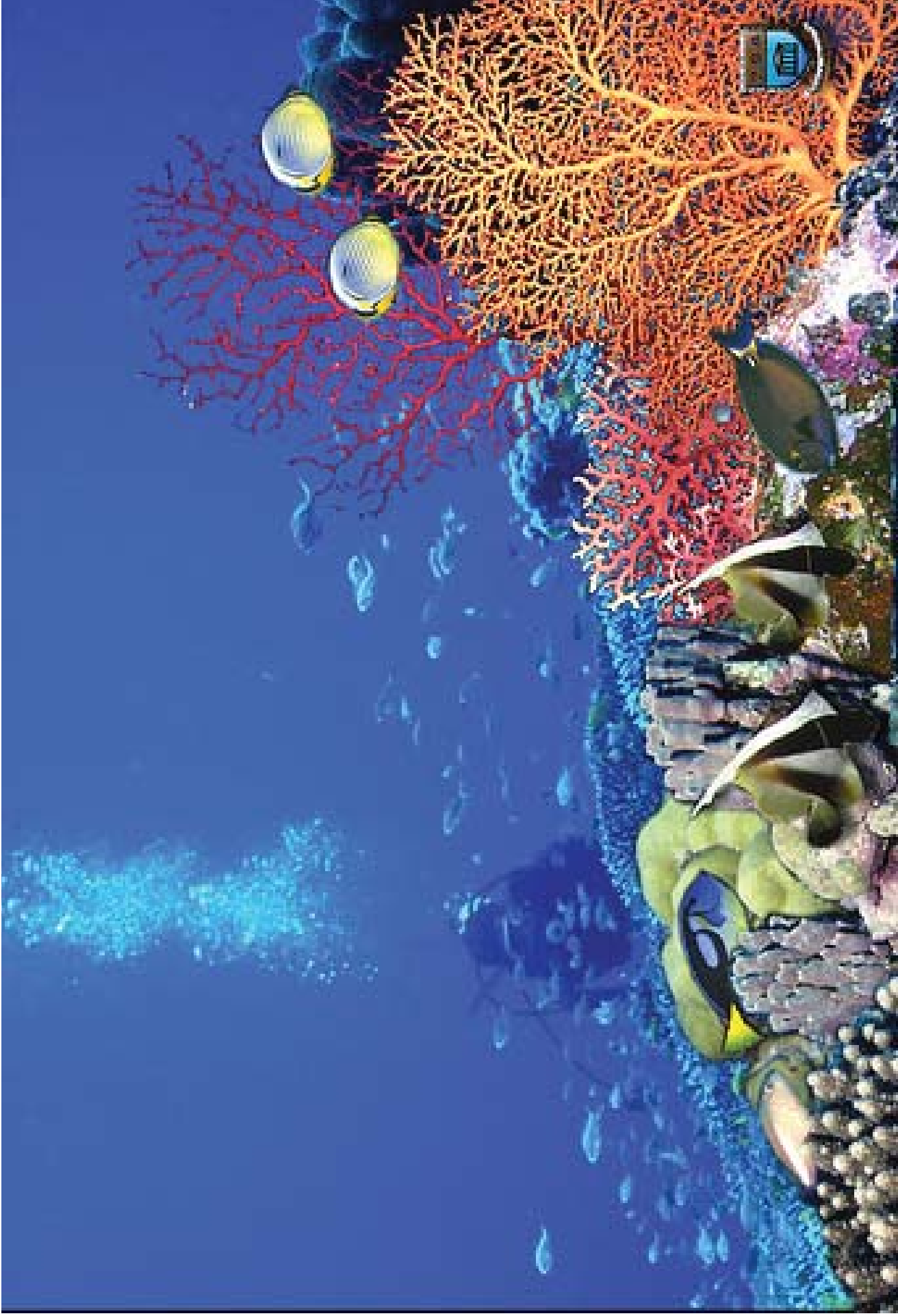
LAND POLLUTION



AIR POLLUTION



WATER POLLUTION



WATER POLLUTION ACTIVITY BACKDROP

AIR POLLUTION WORD SEARCH

W Y T A I R X S T R P T A
S M O K G F A M C T O G T
J O P A T L O O S L O B M
O Y G E N E K K C L R O O
A F S F F I R E U E S S S
F F S C T O R Y A S T H P
C A D F G H J K L Z I P H
S X C S M O G C V B U S E
R B N T M Q W E R T P A R
E Y U I O O P H E R E R E
U X T R Y R A N D D E G C
D U S T E T Y H I S T H I
A Y F T O E X H A U S T A
G I R C T X S M O R A C T
A G H H E R Y F A C T O R
S G T W Q B A G X R Y O I
Y H A E L J M C E T U E G
P O L L U T A N T N F P O

AIR OXYGEN EXHAUST SMOKE SMOG FACTORY
GAS DUST ATMOSPHERE FIRE POLLUTANT

AIR POLLUTION WORD SEARCH (ANSWER KEY)

W Y T A I R X S T R P T A
S M O K G F A M C T O G T
J O P A T L O O S L O B M
O Y G E N E K K C L R O O
A F S F F I R E U E S S S
F F S C T O R Y A S T H P
C A D F G H J K L Z I P H
S X C S M O G C V B U S E
R B N T M Q W E R T P A R
E Y U I O O P H E R E R E
U X T R Y R A N D D E G C
D U S T E T Y H I S T H I
A Y F T O E X H A U S T A
G I R C T X S M O R A C T
A G H H E R Y F A C T O R
S G T W Q B A G X R Y O I
Y H A E L J M C E T U E G
P O L L U T A N T N F P O

AIR OXYGEN EXHAUST SMOKE SMOG FACTORY
GAS DUST ATMOSPHERE FIRE POLLUTANT

Name _____ Date _____

ENVIRONMENTAL POLLUTION TEST

I. Multiple Choice

1. What is not a type of pollution?

- A. water pollution
- B. fire pollution
- C. air pollution
- D. land pollution

2. What is an example of water pollution?

- A. car exhaust
- B. trash on the highway
- C. rain
- D. tires in a lake

3. What is an example of air pollution?

- A. candy wrapper
- B. oil spill
- C. car exhaust
- D. soda can

II. True/False

- 4. Pollution is good for the environment. _____
- 5. Over half of the Earth's drinkable water is polluted. _____
- 6. The efforts of one person can help the environment. _____
- 7. Air pollution harms our breathing. _____

III. Short Answer

8. What does LAW stand for?

9. Give two specific reasons why pollution is harmful to our environment.

10. Give three examples of land pollution.

Name _____ Date _____

ENVIRONMENTAL POLLUTION TEST

I. Multiple Choice

1. What is not a type of pollution?

- A. water pollution B. fire pollution
C. air pollution D. land pollution

2. What is an example of water pollution?

- A. car exhaust B. trash on the highway
C. rain D. tires in a lake

3. What is an example of air pollution?

- A. candy wrapper B. oil spill
C. car exhaust D. soda can

II. True/False

4. Pollution is good for the environment. FALSE
5. Over half of the Earth's drinkable water is polluted. TRUE
6. The efforts of one person can help the environment. TRUE
7. Air pollution harms our breathing. TRUE

III. Short Answer

8. What does LAW stand for?

LAND, AIR, AND WATER

9. Give two specific reasons why pollution is harmful to our environment.

ANSWERS MAY VARY. EXAMPLES: WATER POLLUTION CAN KILL MARINE LIFE, ANIMALS CAN EAT LAND POLLUTION, ETC.

10. Give three examples of land pollution.

ANSWERS MAY VARY. EXAMPLES: CANDY WRAPPERS, TIRES, SODA CANS, ETC.

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