

Living Green: Pollution



Dictionary: Click or tap and hold on the selected word. Then select the Dictionary option from the **Quick Menu** to see the word’s definition.

Glossary: There is a glossary on pages 60–61. Terms defined in the glossary are in bold type on their first appearance on any spread.

Find the answers to the Matching exercise using the Glossary.

MATCHING: Match the word to the meaning.

Answers:	Word:
	1. Acid Rain
	2. Erosion
	3. Turbine
	4. Emission
	5. Dead zone
	6. Global warming
	7. Smog
	8. Pollutant
	9. By-product
	10. Crude oil

Meaning:	
A.	An airborne waste product.
B.	Rain that has a high concentration of acids because of air pollution.
C.	An additional product created in the manufacture of an object or substance.
D.	A device used to generate energy when the force of water, steam, or air turns a wheel with vanes.
E.	An area in the ocean with too little oxygen for plant and animal life to survive.
F.	The form of oil that comes directly out of the ground; petroleum.
G.	A single source of pollution.
H.	Gradual wearing away by wind, rain, ice, or other forces.
I.	A brown, hazy mixture of gases and particulates caused by exhaust gases.
J.	The gradual warming of Earth’s surface caused by a build-up of greenhouse gases in the atmosphere.

MULTIPLE CHOICE: (Circle the correct answer.)

11. Read the chapter **WHAT IS POLLUTION?** and answer this question:

Underground deposits that were formed millions of years ago from the remains of plants and animals, such as coal, oil, and natural gas, are known as:

- a. Sedimentary fuels
- b. Biofuels
- c. Fossil fuels
- d. Synthetic fuels

12. Read the chapter **WHAT IS AIR POLLUTION?** and answer this question:

What is the name of the process by which carbon dioxide builds up in the atmosphere, trapping more and more heat?

- a. The greenhouse effect
- b. The carbon dioxide effect
- c. The sauna effect
- d. The heating effect

13. Read the chapter **AIR POLLUTION FROM POWER PLANTS** and answer this question:

Power plants that use the force of moving water to generate energy are called:

- a. Hydroelectric power plants
- b. Turbine power plants
- c. Hydrometer power plants
- d. Hydrogenerated power plants

14. Read the chapter **AIR POLLUTION FROM WASTE DISPOSAL** and answer this question:

A _____ is a place where garbage and other solid waste materials are discarded.

- a. Landfill
- b. Drainage system
- c. Cesspit
- d. Biosphere

15. Read the chapter **AIR POLLUTION FROM HEATING** and answer this question:

So many buildings today are designed to be closed up most of the time, with heating in the winter and air conditioning in the summer. This has led to a problem called:

- a. Stale air syndrome
- b. Toxic mould syndrome
- c. Carbon dioxide syndrome
- d. Sick building syndrome



COMPREHENSION QUESTIONS:

16. Read the chapter **AIR POLLUTION FROM AUTOMOBILES** and watch the video , and then answer this question:

Why is air pollution from motor vehicles worse now than it was in 1950?

17. Read the chapter **WHAT IS SOIL POLLUTION?** and answer this question:
Why is healthy soil important?

18. Read the chapter **CLEAN UP AND PREVENTION** and watch the video , and then answer this question:

Scientists and engineers continue to develop remediation methods to deal with catastrophic pollution. Give a brief description on two remediation methods currently used on oil spills.
1.

2.



ANSWERS

Answer: **Word:**

- B 1. Acid Rain
H 2. Erosion
D 3. Turbine
A 4. Emission
E 5. Dead zone
J 6. Global warming
I 7. Smog
G 8. Pollutant
C 9. By-product
F 10. Crude oil

11. c. Fossil fuels
12. a. The greenhouse effect
13. a. Hydroelectric power plants
14. a. Landfill
15. d. Sick building syndrome
16. There are over 1 billion motor vehicles in use throughout the world today compared to only about 50 million in 1950.
17. Healthy soil includes living organisms such as bacteria, fungi, and small animals. These living things help break down wastes in the soil and release nutrients.
18. **Skimmers** are devices that pick up floating oil and put it in storage tanks on ships. One kind of skimmer operates like a vacuum cleaner and sucks up the oil.
Sorbents consist of materials that soak up oil like a sponge. The sorbents are put in the oil slick and then extracted when full of oil.
Dispersing agents, or detergents, are chemicals that dissolve or break up oil into tiny droplets that can then be handled by the ocean's own natural cleaning processes.
Gelling agents are materials that react with oil to form solids similar to rubber. This method is practical only on small amounts of oil.
Biological agents are microorganisms that "eat" oil and then give off simpler substances that can be handled by the ocean's cleaning processes.

EXTENSION ACTIVITY:

As large fish eat small ones, the mercury level becomes concentrated. A small amount of mercury may cause little harm to the plant-like organisms at the bottom of the ocean's food chain, but even small amounts of mercury can accumulate as fish eat the small marine animals and are eaten by even larger fish. Humans who eat fish contaminated with high levels of mercury can suffer from mercury poisoning, which can cause severe brain damage and paralysis.

