

**Dorota Dziuba**

# ENVIRONMENTAL ISSUES

## Angielski dla studentów ochrony środowiska

Wydanie II uzupełnione i poprawione



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## 1. Air pollution

### Warm-up

- Think of any words you can associate with air pollution, note them down and then compare your list with your partner's.
- Think of any possible sources of air pollution and write them down on the blackboard.

### Exercise 1

Match the words to the definitions, then read the text and underline them.

1. liquid	a. fumes from an engine
2. remote	b. a process of changing food by an organism
3. exhaust	c. rough
4. dilute	d. a not planned product or result
5. digestion	e. a substance that can flow
6. abrasive	f. continuing
7. a by-product	g. a very small amount
8. soot	h. distant
9. trace	i. black powder left after burning
10. persistent	j. containing more water

Air pollution can be described as any harmful material that is present in the atmosphere, and therefore its causes are numerous and highly varied. Some of its sources, like volcanic eruptions, are natural, others are caused by human activities, for example by the burning of fossil fuels. Pollutants can appear in the form of solid particles, liquid droplets, or gases. Because they can travel on wind and do not respect political borders, they are not only concentrated over industrialized areas which generated them but they can also be found in remote locations.

Pollutants can be classified as either primary or secondary. Usually, primary pollutants are substances directly emitted from a process, such as ash from a volcanic eruption, carbon monoxide from car exhausts or sulphur dioxide released from factories. Secondary pollutants form in the air when primary pollutants react or interact creating, for example, dilute acids, which fall as acid rain.

Natural sources of air pollution can be quite dangerous at times. They may include dust picked up by wind from large areas with little or no vegetation, such as deserts and semi-deserts; the emission of methane resulting from the digestion of food by animals such as cattle; smoke and carbon monoxide from wildfires caused by natural reasons. Volcanic activities are perhaps the largest single sources of natural air pollution. These can produce clouds of abrasive ash particulates and other harmful chemical substances such as chlorine and sulphur.

Yet, the most well-known and serious causes of air pollution are man-made. The burning of oil products and other fossil fuels is a common cause of pollution, especially in cities. When petrol is burned, it produces carbon dioxide or monoxide. Small particles of soot are also released into the atmosphere, along with trace amounts of other harmful substances. All that, together with airborne particles, might create persistent smog, which plagues cities.

Other man-made causes of air pollution include smoke from industry and power stations. The substances emitted at these sources can contain sulphur dioxide and nitrogen dioxide, which are responsible for the formation of acid rain. Chlorofluorocarbons (CFCs) are the ozone layer-destroying chemicals emitted from cooling systems in old refrigerators, but they have been banned from use in new ones.

Air pollution influences the world and people in a number of ways. The primary problems are diseases of the heart and lungs. Asthma and respiratory allergies are on the rise, due to irritation by chemicals and particulates. Some pollutants are damaging the atmosphere, exposing the earth to harmful ultraviolet radiation and give way to secondary problems, such as acid rain and death of vegetation.

**Exercise 2**

Label the statements True or False.

1. There are few sources of air pollution.
2. Pollution is present in industrial areas only.
3. Secondary pollution is the result of primary pollution.
4. Natural sources of air pollution are always safe.
5. Ashes can come from volcanic activities or forest fires.
6. Humans are responsible for most air pollution.
7. Smog is no longer a problem in industrialized cities.
8. Human health is not at risk because of air pollution.

**Exercise 3**

Match the words from Column A to those from Column B to make expressions from the text.

**A**

1. cooling
2. dilute
3. harmful
4. industrialized
5. persistent
6. primary
7. respiratory
8. solid
9. trace
10. volcanic
11. wind

**B**

- a. acids
- b. allergies
- c. amounts
- d. areas
- e. erosion
- f. eruptions
- g. material
- h. particles
- i. pollutants
- j. smog
- k. systems

Now use some of them in the following sentences:

1. Pollution in ..... is always higher than in rural ones.
2. Air in the cities contains various gases and ..... such as ashes.
3. .... in old refrigerators can be harmful to the environment.
4. Extremely small volumes of a substance are called .....
5. .... are dangerous because of considerable amounts of gases, ashes and lava released.

**Exercise 4**

Complete the sentences with words derived from the words in capital letters.

1. .... with machine parts were loaded on trucks.	CONTAIN
2. Artists must have a very ..... imagination.	CREATE
3. Terrorist attacks ..... the peace process in the area.	DANGER
4. The process of ..... made land useless for farming.	DESERT
5. Long ..... to the Sun is not good for your skin.	EXPOSE
6. A lot of ..... substances were present in the air.	GAS
7. You can hold this snake – it is .....	HARM
8. The company wanted to ..... its operations.	LARGE
9. His ..... refusal to pay led him to prison.	PERSIST
10. They are looking for financial support from ..... sources.	VARY

**Exercise 5**

Find synonyms in the text for the following words:

boundary, comprise, damaging, distant, diverse, fluid, forbidden, prevalent, rough, solitary.