„Prevention against pollution" - lesson plan

Duration	1 hour
Age	6 - 9
Type of classes	Didactic and educational activities
Working methods	• *Brainstorming* • *Individual work* • *Work in groups* • *Didactic games*
Goals	• *to know the possibilities of guidance for the protection and improvement of air quality* • *recognize the possibilities of protection against the air pollution* • *to be familiar with the rules and skills related to the clean air protection* • *take an active part in the protection against of air pollution* • *know safe, environmentally appropriate, and ethical practices* • *to be able to communicate valid conclusions*

1. *What Can We Do to Help Reduce Air Pollution?*

The teacher shows to pupils following cartoons:

- Car,
- Air conditioner,
- Hair dryer,
- Window,
- Fireplace,
- Light bulb
- old boiler,
- PV panels

from presentation (slide 2).

During showing the cartoons s/he explains: Every time we drive to school, use our heater or air conditioner, clean our windows, or even style our hair, we make choices that affect air pollution.

Then, the teacher asks the children for their own ideas of solutions to minimize air pollution which could be applied at (in sequence) CLASS, SCHOOL, HOME, and VILLAGE levels (slide 3-6).

For example:

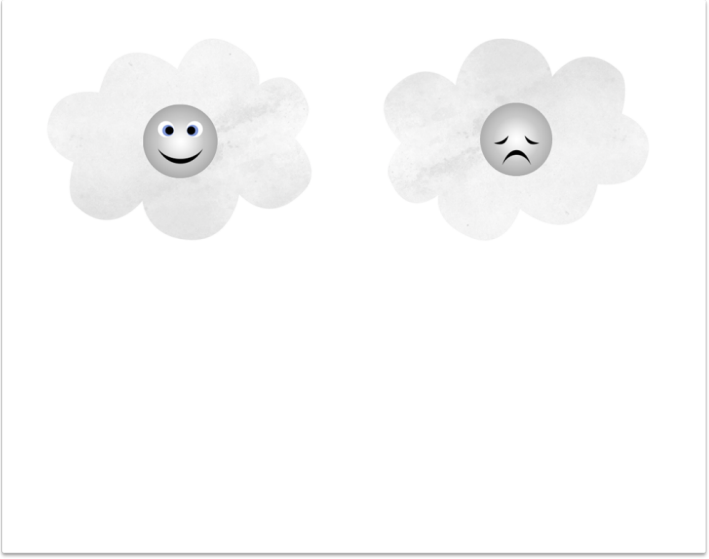
CLASS: save energy in class (for example by turning off lights, computers, and electric appliances when not in use), check air quality before lessons every morning, have plants in the classroom
SCHOOL: get to school by bicycle or bus, make a compost pile, recycle (do not throw away items that are of no use to you and reuse them for some other purpose) at school
HOME: use ecological sources to heat your home eg. renewables (heat pumps etc.), if you use solid fuels to heat your home burn only good quality fuels, don't burn humid wood, limit the usage of the fireplace (if you use other sources)
VILLAGE: limit using cars by using public transportation, car pooling, biking or walking; talk with adults about problem and convince them to work for clean air.

Discussing about possible solutions on each levels they will learn that more and more cooperation and work together will be needed as we pass from one level to the other, as the problems we are facing respond to a shared responsibility.

2. *What is good for our air? What isn't?*

Sorting activity - teacher has prepared cartoons (slide 7) and asks pupils to put activity on the "right" Air:

- happy Air - activities that help to save air environment,
- sad Air – activities that pollute and/or destroy air environment.



Attention: instead of earth, there should be a drawing of air (eg a cloud)

3. Prevention in rural and suburban areas

In rural areas it seems that there is no air pollution as we are near the countryside, but we need also better monitoring of air pollution. Air quality can fluctuate rapidly in every environment. For example, heating or cooking with wood in the home can cause a rapid spike in indoor air pollution. Waste-burning tends to be practised at certain times of the day in many places.

The teacher asks the children – Do you think that in rural areas the quality of air is always good? - and tries to discuss this with the children finishing in the end with some examples of bad air quality even in rural areas:

a. Smoke from open fires in the countryside

b. Smoke from cigarettes

c. Smoke from burning wood and coal in inefficient chimneys

d. Smoke from burning waste

e. Exhaust from old non electric cars

f. Others

After order the pollution sources in rural area in group the teacher asks about some ideas to reduce the pollution and play to the game “Cross out the pollution, colour the solutions”.

The teacher explains them we cannot solve a problem that we don’t know, and because air is invisible, these measures will not in themselves stop the problem of air pollution – but they are a necessary and important first step. The more we know about air pollution, the better we can figure out how to protect children from its negative effects.

Because of this, we cannot always only count on our senses to measure the air quality, and there are specific monitoring systems that can help individuals, parents, families, communities and local and national governments become more aware of how air pollution might affect them, and adjust to immediately prevailing conditions to minimize

4. Puzzle

The teacher places in a prominent place, for example on a blackboard, a board with drawings (along with the signatures) appearing in the puzzle and explains the meaning of individual drawings. Then she/he gives the children a page with a puzzle and/or displays it on the presentation (slides 9-14)

Variant A – Role division

The teacher randomly selects children from the class and assigns them individual roles in accordance with the pictures from the board. The teacher (or other child) plays the role of a reader and reads the text

written in words. Students join the text they read by saying the name of the previously indicated picture. In this way, they read the text related to the subject of air pollution together.

Variant B – Common reading of the text

The teacher introduces students to the way the encrypted text is read. The teacher acts as a narrator, and the whole class, on the teacher's signal, tries to read the content of the encrypted message together. The teacher indicates on the board a given symbol when it appears in the content.

NOTE: For younger children (not able to read), you can reduce the number of symbols and choose the ones that are unambiguous (eg car, house, heart)

Variant C – Division into parts

The teacher divides the text into 4 sections and entrusts 4 students with reading the encrypted message. Each of them reads the fragment indicated by the teacher.

Then the pictures can be colored.

The teacher completes the lesson by showing slide 16.