

Lesson Plan ( 1-4 class )

**Lesson Title:**

Environmental protection. We want air without smog. (2 hours)

**Objectives:**

- Realizing that air is ubiquitous and necessary for life, and its purity is a source of health.
- Ability to determine the causes of air pollution.
- Learning how to prevent air pollution.

**Materials Needed:**

- boards,
- pictures,
- interactive whiteboard,
- magnifying glass, drinking straws,
- Air Freshener,
- jars,
- balloons,
- hair dryer,
- fan,
- sprinkler,
- matches,
- pictures,
- pictures,
- boards,
- plastic materials, marker.

**Outline of the lesson:**

1. Stuffy nose fun

Children are asked to cover their nose and mouth for several seconds. Then we ask them questions:

- What can't we do when we have a stuffy nose?
- What do we breathe?
- What would happen if we kept our noses stuffy longer?

2. What do we know about air? Checked answers.

- What does air need?
- Does the air have a color? (visual observation and through a magnifying glass)
- Does the air have a taste? (drawing air through straws)
- Does the air have a smell? (not unless we spray something in the air - use of air freshener)
- Does air have a shape? (closing the air in the jar, blowing up the balloons)
- Can the air be heated? (use of hair dryer)
- Can the air be cooled? (fan usage)
- Is the air dry or humid? (humidifier, wet towel or sprinkler)

### 3. Experiment

The teacher invites you to perform a short experiment.

Put a lit, colored newspaper into a jar with a small amount of water, and then quickly close the container. After burning the newspaper, "smoke" appears in the jar. By closing the container tightly, the smoke remains in it.

At the end of the experiment, there is a short, guided discussion.

The teacher asks a question about the formation of a similar phenomenon in the environment.

Goes to the concept of SMOG (eng. SMOKE - smoke, FOG - fog)

### 4. Where does smog come from? We present boards (photos, pictures)

- smoke from burning coal in furnaces,
- smoke from factories,
- smoke from car exhaust pipes,
- smoke from burning garbage,
- smoke from burning leaves and grass.

What factors cause the formation of Smog?

E.g.

Smog is created around us when there are simultaneously: moisture, cold, pollution and lack of wind. The polluted air then stays close to the ground because it is cooler than the air in the layers above.

Show children pictures of smog over cities.

### 5. NO TO Smog - anti-smog banners (or posters)

Before starting work, students (divided into groups) present their ideas:

Group I - What can we do in our homes to reduce the occurrence of smog?

For example, do not smoke coal, do not burn garbage, do not burn grass and leaves, take care of plants in our surroundings, choose a bicycle .....

II group – What are we as a society .....

For example, limit the number of coal-fired power plants, put filters on factory chimneys, plant a lot of trees, use public transport

III group – What are we not allowed to do when there is smog?

e.g. do sports outside, ventilate apartments, leave doors open...

IV group - What should be done when .....

For example, turn on the air purifier, wear a dust mask, breathe through your nose (not your mouth), seek medical help if you feel unwell....

### **Summary** - how air pollution can affect our health.

We attach the silhouette of a man to the board. Pupils talk about health - we write around the appropriate statements (if there is no one, we tell the children about it).

For example, anxiety, irritability, memory problems, shortness of breath, cough, sinusitis, lung cancer, heart attack.

Finally, we put the completed work in a visible place. You can also take pictures of posters and use them as leaflets in an information campaign.

Finally, you can also watch:

- movie with English subtitles

<https://tuptuptup.org.pl/danieczyszcze-powietrze-filmik-struktury-dla-dzieci/>

or

- educational video <https://www.youtube.com/watch?v=SYCWhBw6gzw>

Can be used during class

- a presentation

[https://zss-koscian.pl/files/37539/smog\\_pp\\_5.pdf](https://zss-koscian.pl/files/37539/smog_pp_5.pdf)