



## „Prevention against pollution” - lesson plan

Duration	1 hour
Age	15-19
Type of classes	Didactic and educational activities
Working methods	<ul style="list-style-type: none"> <li>● <i>Brainstorming</i></li> <li>● <i>Individual work</i></li> <li>● <i>Work in groups</i></li> <li>● <i>Didactic games</i></li> </ul>
Goals	<ul style="list-style-type: none"> <li>● <i>to know the possibilities of guidance for the protection and improvement of air quality</i></li> <li>● <i>recognize the possibilities of protection against the air pollution</i></li> <li>● <i>to be familiar with the rules and skills related to the clean air protection</i></li> <li>● <i>take an active part in the protection against of air pollution</i></li> <li>● <i>know safe, environmentally appropriate, and ethical practices</i></li> <li>● <i>to be able to communicate valid conclusions</i></li> </ul>

### 1. What Can We Do to Help Reduce Air Pollution? - work in groups

The teacher divides students to 5-people groups and asks them to work on several topics, each group gets one topic to work on (slide 2):

- a) How to limit emission from individual boilers?
- b) How to limit emission from transport?
- c) How to save energy?
- d) How to reduce the amount of garbage?

Later on each group presents its solutions, the teacher corrects them if necessary, the best solutions are written on the blackboard. After the presentation of each group, the teacher shows a slide with examples of answers - slide 3-9.

### 2. Prevention in rural area - creating daily checklist helping to prevent air pollution

Groups are asked to prepare daily checklist which will help them make sure that they did everything to prevent air pollution every day.

Example:

- segregate waste
- turn off lights
- put on sweater instead of turning up the heater
- use bike/walk instead of car



- use public transportation
- save energy etc.

The teacher completes the lesson by showing slide 12.

### 3. *Additional activity*

#### **Create your own filter for particles**

Engineers design methods of removing particulate matter from industrial sources to minimize negative effects of air pollution. In this activity, students undertake a similar engineering challenge as they design and build a filter to remove pepper from an air stream without blocking more than 50% of the air.



How to do it, you can read at

[https://www.teachengineering.org/activities/view/cub\\_enveng\\_lesson07\\_activity2](https://www.teachengineering.org/activities/view/cub_enveng_lesson07_activity2).

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