

# Is the air clean?

## 1 Overall aims:

### Cognitive

- To know the air can be contaminated
- To identify some of the causes of pollution
- To identify ways to control pollution

### Attitudinal

- To know that humans must take care of the planet
- To engage in the defense of life in the Earth

## 2 Vocabulary - keywords

Sustainability: pollution; man-made-pollution

Science: health; illness

Art: to design; to illustrate

## 3 Sustainable abilities developed

- Critical thinking
- Systemic thinking
- Problem solving

## 4 Pillars of sustainability included

### Environmental:

- To know what is pollution
- To know that pollution is man-made
- Discover the importance to breathe a clean air

### Social:

- Discover humans can reduce pollution

## 5 STEAM domains

- Science
- Technology
- Art



Co-funded by the  
Erasmus+ Programme  
of the European Union

This project has been funded with support from the European Commission. This publication reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

## 6 Teaching methodologies/activity outline

- 1- Explain the children we are going to check if the air is clean or not.
- 2- Take three caps of mayonnaise and spread them with Vaseline. 10'
- 3- Label each cap with the date we left it.
- 4- Put the caps in different places: the garden of the pre-school, a balcony of one of the children's home in the center of the city, on a tree in a park near the school, etc.  
We make sure that nobody touches the caps. (Wait 7 days)
- 5- After 7 days, verify with a magnifying glass which one of the taps is more dirty which is not so dirty, etc. 10'
- 6- The teacher talks with the children about the cause of the differences and tells them about the man-made pollution. 30'
- 7- The children make a simple graph to represent the differences between the level of pollution shown on the caps. 20'
- 8- The children elaborate posters to make conscious the neighbors about the dangers of pollution for human health and the ways to avoid it. 30'
- 9- The children hang the posters in the neighborhood.

## 7 Expected learning outcomes

The children will be able to:

- Know what is pollution and it has man-made causes
- Know that pollution is bad for human health
- Create a simple graphic
- Design and illustrate posters

## 8 Assessment

Initial assessment: Ask questions to the children to know their background regarding pollution, its man-made causes and its consequences on human health.

Formative assessment: Check the graphics representing different levels of pollution

Summative assessment:

- Check if the posters include simple ideas concerning the need of a clean air.
- See if the children are enthusiastic in designing and delivering the posters.



<b>9</b>	<b>Equipment and materials to be used in learning unit (tools, ingredients etc.)</b> <ul style="list-style-type: none"> <li>• 3 caps of plastic</li> <li>• Magnifying glasses</li> <li>• Control list</li> <li>• Cardboard; pencils; crayons</li> </ul>
<b>10</b>	<b>Kind of setting - lab, kitchen, outdoor etc.</b> <p>1- 2- 3- Classroom</p> <p>4- Different settings to put the caps: garden, park, house's balcony</p> <p>5- 6- 7- 8- Classroom</p> <p>9- Outdoor (neighborhood)</p>
<b>11</b>	<b>References - source:</b> <p><a href="https://www.educacioninicial.com/c/000/094-experiencias-comprobar-contaminacion-aire/">https://www.educacioninicial.com/c/000/094-experiencias-comprobar-contaminacion-aire/</a></p>

