



Pollution: Lesson Plan

Topic	
Exposure to pollution introduces toxic chemicals into the body. These chemicals can affect the body's major organ systems and even cause cancer. In fact, 16% of annual global deaths are caused by land, air, and water pollution. Despite these health effects, the amount of pollution in the world keeps increasing.	
Possible subjects/classes	Time needed
Environmental Science, Public Health, Biology	45-50 minutes
Video link:	
https://academy4sc.org/video/pollution-trash-that-trashes-your-health/	
Objective: <i>What will students know/be able to do at the end of class?</i>	
<p>Students will be able to...</p> <ul style="list-style-type: none"> • Identify the ways in which exposure to pollution impacts individual health. • Explain why reducing pollution in the environment is extremely important to human health 	
Key Concepts & Vocabulary	
Toxic, Pollution, Organ system	
Materials Needed	
Worksheet, Computer, poster supplies if doing activity 1	
Before you watch	
<p>Turn and Talk. Ask students to discuss in small groups what they think pollution is and why it is harmful. Have them write down a definition for pollution, and list ways that it is harmful to share with the class.</p>	
While you watch	
1. What is pollution? Where is it found?	



2. What are some ways in which pollution affects health?
3. How does pollution disproportionately affect historically oppressed groups?

After you watch/discussion questions

1. There are many negative impacts of pollution beyond health? What are some ways that pollution negatively impacts the world?
2. Do you think pollution should be addressed by individual nations, or by a larger organization such as the UN?
3. Do you think the issue of pollution and health be approached from a medical perspective or an environmental policy perspective? In other words, do you think medical research should be the primary way to prevent pollution related deaths, or environmental policy? Why?

Activity Ideas

- Have students create a poster presentation that explains pollution, its negative effects, and ways to be more sustainable. Have them include a section defining pollution, a section discussing negative effects (health, environmental, economic, etc.), a section that details ways that an individual can be more sustainable, and a section that discusses policies that the government should adopt to reduce pollution.
- Have students keep track of the trash they generate for a week. Either have them take a picture each time they throw something away, or have them try and contain the trash into one bag. At the end of the week, have students reflect on the trash they generated and how keeping track of it impacted them. Ask them to record how they felt about how much trash they generated throughout the week, and if this made them rethink what they throw away.

Sources/places to learn more

1. "Air Pollution." *World Health Organization*, World Health Organization, www.who.int/health-topics/air-pollution#tab=tab_1.
2. "History of Air Pollution." *EPA*, Environmental Protection Agency, 10 June 2020, www.epa.gov/air-research/history-air-pollution.
3. Njoku, Prince O et al. "Health and Environmental Risks of Residents Living Close to a Landfill: A Case Study of Thohoyandou Landfill, Limpopo



Province, South Africa." *International journal of environmental research and public health* vol. 16,12 2125. 15 Jun. 2019, doi:10.3390/ijerph16122125
4. "Pollution." *World Bank*, www.worldbank.org/en/topic/pollution.