

ASSEMBLY SCRIPT FOR HOW CLEAN IS THE AIR WE BREATHE





Aim:

To be able to describe the main types of air pollution, the conditions they cause and why it is important to monitor air quality - especially in and around schools.

Entering the assembly:

You might choose to play 'Mercy Mercy Me', a song about pollution by Marvin Gaye, as the students enter the room.

Instructions and teacher notes	Presentation slide
<p>Title slide. Start by posing the question, 'How clean is the air we breathe?' to the students and follow it up with, 'How could we find out?', 'How do we measure it?' and, 'Why should we care?'</p>	
<p>Display the various warning signs and ask the students to consider the purpose of signs such as these? They will no doubt have seen signs like these, and many others that warn of other dangers, but what is their purpose?</p>	

Instructions and teacher notes

Presentation slide

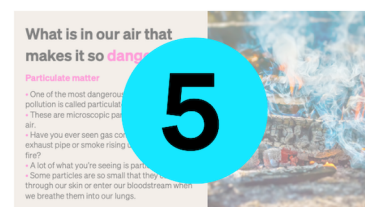
Explain that we all face numerous hazards every single day of our lives. It is impossible to remove all danger from our lives. But these signs make us aware of danger, they bring it to the forefront of our minds, they influence us to take precautions and modify our behaviour so the risk we face from that particular danger is lessened. Explain that some dangers go unseen and don't have warning signs even though they are deadly dangerous.



Explain that air pollution is the biggest environmental threat to health and that it leads to the early death of around 43,000 people in the UK every year and 4.2 million globally. 99% of people breathe unsafe air.



Describe how human activity creates particulate matter and that it is formed from microscopic particles that float in the air and can be inhaled. Depending on their size, they can also enter the bloodstream through skin absorption and the respiratory system.



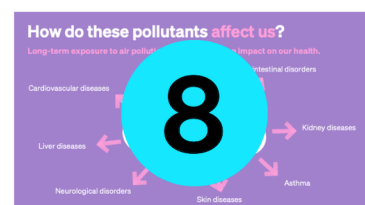
Explain how ground-level ozone is created through the photochemical reaction between pollutants and sunlight.



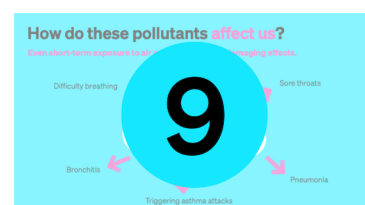
Explain how nitrogen oxide is one of the gases that helps create ground-level ozone (or smog) and that over 80% of nitrogen oxide pollution in the UK is caused by transport - especially diesel cars and vans.




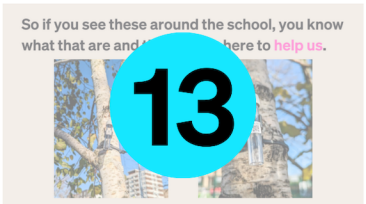
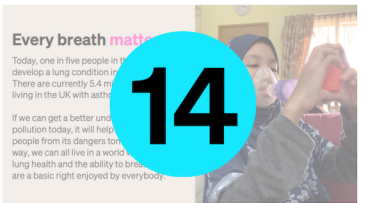



Display the word cloud and briefly discuss/name some of the main conditions that are caused by long-term exposure to air pollution.



Display the word cloud and briefly discuss/name some of the symptoms people may experience brought on by short-term exposure to air pollution.



Instructions and teacher notes	Presentation slide
<p>Now that the students are aware of some of the conditions caused by air pollution and what the main air pollutants are, ask them to consider what can be done about it. Explain that breathing is how our bodies get vital, life-sustaining oxygen. Display the multiple choice question about the average number of breaths taken in a school day and ask students to raise their hands for answer they think is correct. Then reveal that it is around 6,000.</p>	
<p>Explain why the air quality in schools is particularly important and why children are more susceptible to air pollution than other groups in society.</p>	
<p>Explain that this is why the school has decided to install air quality monitors at various locations around the school site. By being better informed about the extent of air pollution in the school, the school community will be better placed to take steps to lessen the dangers and risks faced. It is only by understanding the extent of the problem that it can be tackled.</p>	
<p>Display the image of the air monitor and explain that, if they see these around school, they are there to measure the quality of our air.</p>	
<p>Reinforce why clean air is important by explaining that 20% of people will develop a lung condition in their lifetime and that there are over 5 million people in the UK living with asthma. Conclude by explaining that, if we take steps today, these figures can be reduced in the future.</p>	
<p>Display the Asthma + Lung UK logo and explain that this charity, through actions such as giving air quality monitors to schools, is working to improve air quality and therefore lung health in the UK. It is Asthma + Lung UK's target to reduce the number of deaths caused by lung conditions by 20% by the year 2027. Explain how the students can find out more by visiting the www.asthmaandlung.org.uk or searching #fightingforbreathe on social media.</p>	
<p>Closing slide. You may wish to play the music from the start of the assembly as students leave the hall.</p>	