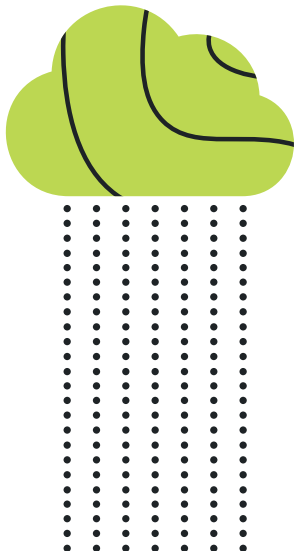




A clean air future



Clean air - should we care?



TRUE
OR
FALSE



TRUE

OR

FALSE

Q1.

The World Health Organisation and the UK Government recognise that air pollution is the fourth largest environmental health risk we face today?



Answer: False

The World Health Organisation and the UK Government recognise that air pollution is the largest environmental health risk we face today.

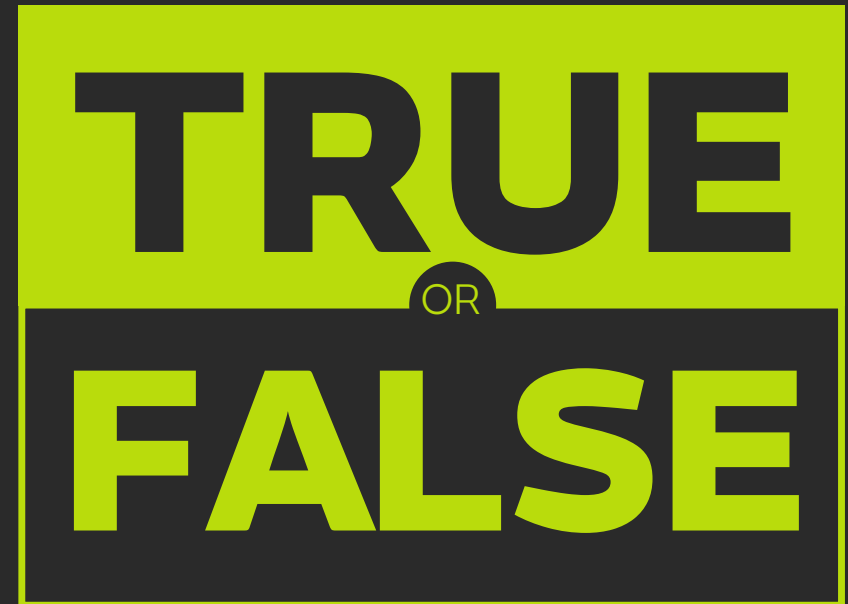
Q1.

The World Health Organisation and the UK Government recognise that air pollution is the fourth largest environmental health risk we face today?



Q2.

Air pollution affects our health. It is only harmful to our lungs.



Q2.

Air pollution harms our health. It is only harmful to our lungs.



Answer: False

Air pollution can impact every organ in our bodies. When we breathe in polluted air, the toxic particles and gases get into our bodies through our lungs. This pollution can then get into our blood and travel to every organ in our bodies.

Any amount of pollution can be damaging to our health, but the more that you are exposed to, the bigger the risk and the larger the impact it can have.

TRUE

OR

FALSE

Q3.

Air pollution contributes to between 28,000 and 36,000 deaths per year in the UK.



Answer: True

It causes heart, lung and brain diseases and may even contribute to mental health issues.

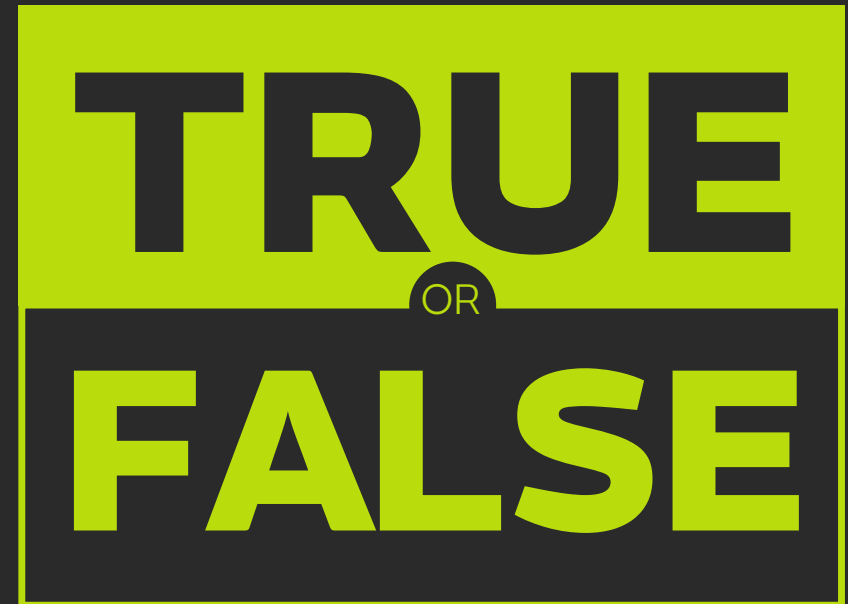
Q3.

Air pollution contributes to between 28,000 and 36,000 deaths per year in the UK.



Q4.

Young people have the power to take action on air pollution.



Q4.

Young people have the power to take action on air pollution.

Answer: True

Everyone - no matter how old they are, who they are or where they are from - has the power to take action on air pollution! Young people can speak to others in their community, decision makers, businesses and government – to shape the future they want to live in.



TRUE

OR

FALSE

Q5.

Air pollution is more dangerous for children and adults who have health conditions (problems), especially the ones that affect the lungs, heart and brain.



Answer: True

There are lots of ways that children and adults can protect themselves from air pollution and they can get extra help and support to do this, e.g. by talking to a doctor or nurse about their health condition, getting air pollution alerts or finding trusted information online (e.g. Asthma Lung UK website)

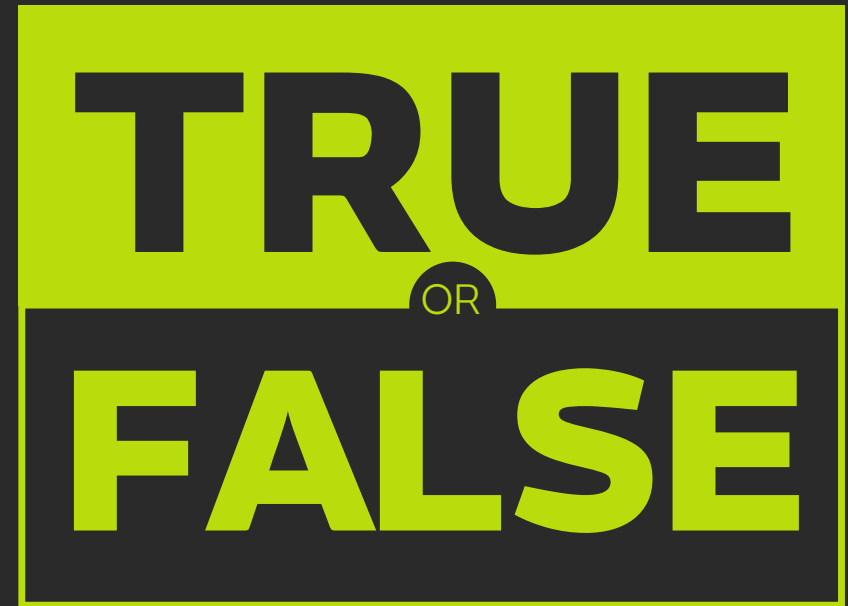
Q5.

Air pollution is more dangerous for children and adults who have health conditions (problems), especially the ones that affect the lungs, heart and brain.



Q6.

One thousand children in the UK have their health and ability to learn damaged every school day, because their schools are in areas of high air pollution.



Q6.

One thousand children in the UK have their health and ability to learn damaged every school day, because their schools are in areas of high air pollution.

Answer: False

Over a million children in the UK have their health and ability to learn damaged every school day, because their schools are in areas of high air pollution.



TRUE

OR

FALSE

Q7.

Almost all UK schools are in areas of high air pollution.



Answer: True

In 2022, 88% of schools in the UK had air pollution in breach of the World Health Organisation's nitrogen dioxide guideline, and 95% were in breach of the PM2.5 guideline. These air pollutants are harmful to our health, which means that almost every child in the UK is being educated in a location capable of harming their health.

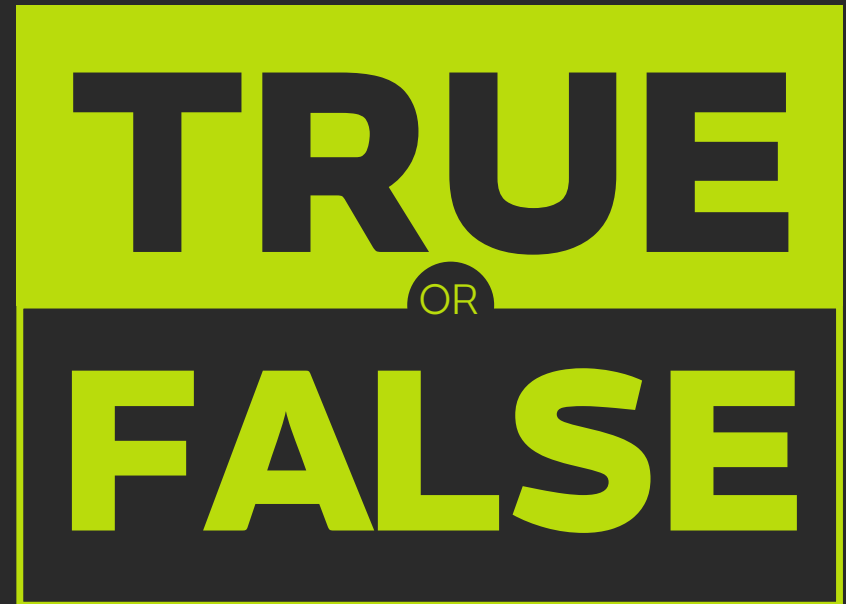
Q7.

Almost all UK schools are in areas of high air pollution.



Q8.

Improving air quality only has benefits for the environment.



Q8.

Better air quality is only better for the environment.

Answer: False

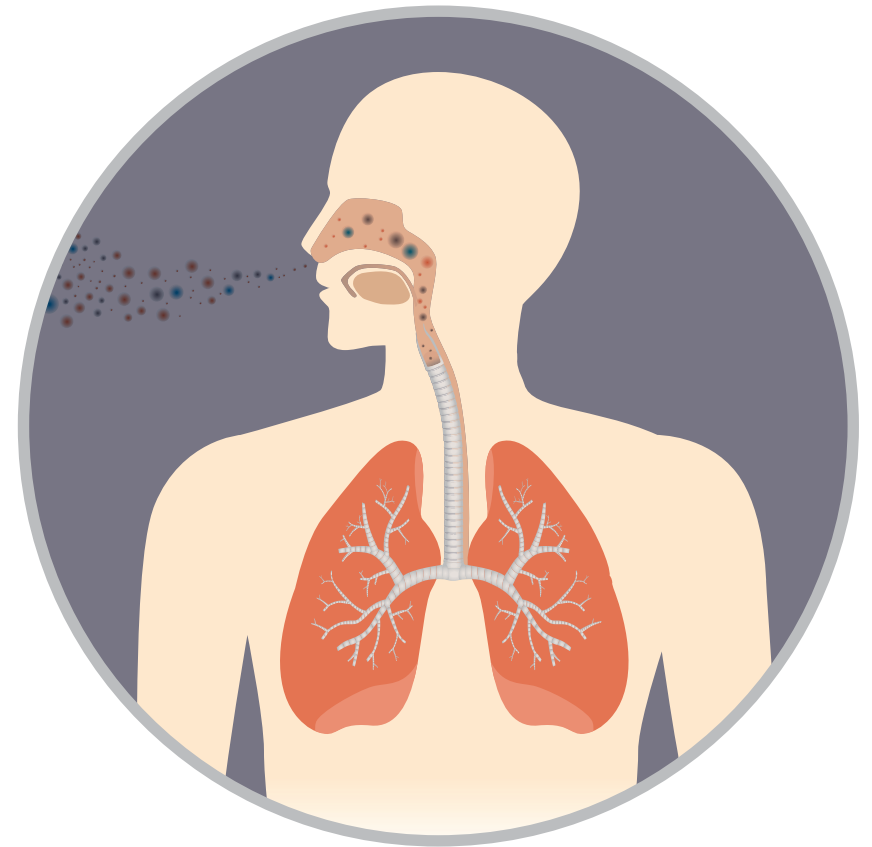
Improving air quality helps improve the environment and tackle climate change, as well as improving peoples' health and wellbeing. Taking action for clean air can be fun, and make a real difference to help build stronger and more sustainable communities.



There are different types of pollution. They all cause damage to the air, land or water. Can you think of some examples?



What is air pollution?

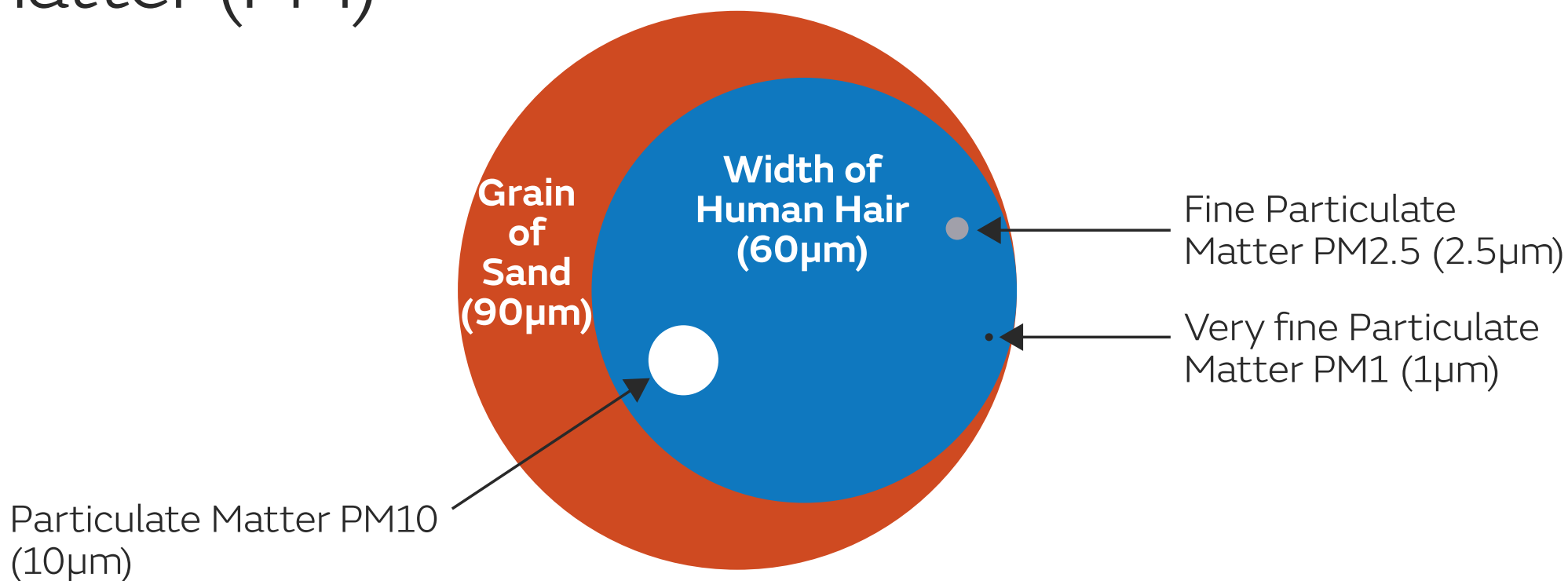


Air pollution is made of particulate matter (PM)

- Air pollution is made up of tiny pieces of pollution in the air, such as chemicals, gases and other substances e.g. dust and mould.
- These pieces are called **particulate matter (PM)** - and are often so small that we can't see them!
- Some particles known as **PM10** are 10 times smaller than a grain of sand!
PM2.5 is 40 times smaller and **PM1** is 100 times smaller than a grain of sand!



The particles in the air are called particulate matter (PM)



µm = Micrometer, which is one-thousandth of a millimeter!



Particles all around us?

Examples of PM10	Examples of PM2.5	Examples of PM1
<ul style="list-style-type: none"> ▪ Sea Salt ▪ Pollen ▪ Heavier dust ▪ Mould ▪ Bacteria 	<ul style="list-style-type: none"> ▪ Soot ▪ Cat allergens ▪ Viruses ▪ House dust mite ▪ Tobacco smoke 	<ul style="list-style-type: none"> ▪ Very fine dust ▪ Combustion particles (e.g. from vehicles, factories, construction sites, wood / coal burners) ▪ Bacteria ▪ Viruses



Air pollution: problems, health impacts and solutions

Activity 1. Place your cards under the 3 headings:

Sources of air pollution (where it comes from)				How air pollution affects our health					Air pollution solutions				
?	?	?	?	?	?	?	?	?	?	?	?	?	?
?	?	?	?	?	?	?	?	?	?	?	?	?	?

Extension: decide if the **sources** of air pollution are examples of **indoor** or **outdoor** air pollution.

Sources of air pollution (where it comes from)			
Sources of indoor air pollution		Sources of outdoor air pollution	
?	?	?	?
?	?	?	?

Check your answers



Sources of **indoor** air pollution come from things like...



Cooking - gases and particles are released when food is cooked.



Chemicals in personal care products (e.g. shower gels, body sprays), cleaning products or craft materials are released into the air. These harmful gases are called volatile organic compounds (VOC).



Burning things indoors releases gases into the air, e.g. burning wood and coal to heat homes, smoking, or burning candles and incense sticks.



Dust, mould and bacteria are made up of small particles that get into the air.

Sources of **outdoor** air pollution come from things like...



Vehicles such as cars, vans, ships and planes release harmful gases and tiny particles into the air.



Factories and power stations release harmful gases into the air.



Farming often has a lot of animal waste and uses fertilisers and pesticides (chemicals) to help food grow. These can all cause air pollution.



Idling is when the engine is left on when the car or vehicle is not moving.

Air pollution affects our health



Air pollution can impact your heart and cause future heart problems.



Air pollution can damage your lungs and impact your breathing.



Air pollution can affect your brain and therefore your ability to learn and your mental health.



Air pollution is more dangerous for children and adults with health conditions (problems).



Air pollution affects everyone! Any amount of air pollution can damage our physical and mental health.

Air pollution solutions



Active travel - walk, cycle or scooter to school and other places.



Get the bus, tram or train to school and other places.



Discover quieter routes to school and other places. Avoid busy roads and find quiet side streets, when possible.



Walk on the side of the pavement that is furthest away from the road, especially if you can't avoid walking near a busy road!



Ask adults to turn the engine off when the car is not moving.



Ask adults to open windows when they are cooking.



Ask adults to open windows when they are cleaning



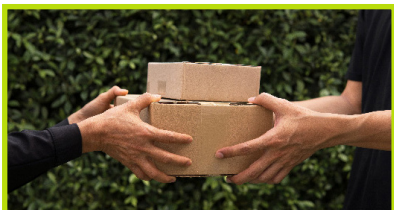
Ask adults to choose personal care and cleaning products that are milder and fragrance-free (no strong smells).



Remind children with health conditions that they can get extra support, for example: a nurse or doctor can help them find ways to stay safe from air pollution



Ask adults to not smoke indoors or near you, and to not burn things indoors e.g. candles and log burners.



Ask adults to avoid non-essential deliveries or chose the low pollution option when shopping online.

Who can help make our air cleaner?



A local business
(e.g. a corner shop)



The media



The Royal Family



A national business
(e.g. Argos, Sainsbury's)



Young People



The Prime Minister



An international business
(e.g. Amazon, Facebook)



A community leader
(e.g. a religious,
community leader etc.)



Schools



The United Nations



A local politician
e.g. an MP (Member of
Parliament)

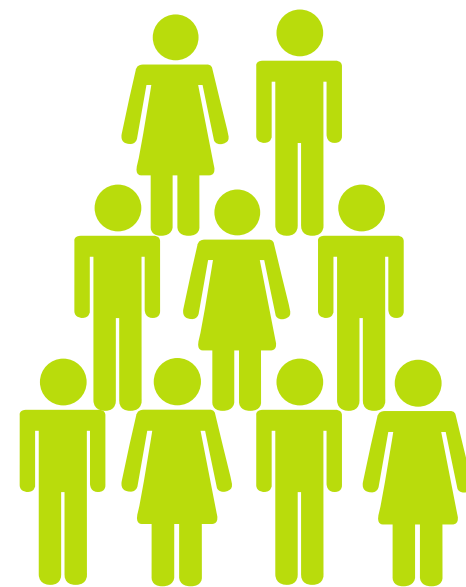


Adults

We can all make a difference!

Everyone can make changes in their own lives to improve the air we breathe:

- **Decision makers** have the power to make big changes that benefit many people.
 - E.g. changing the law or changing the way a school or business works.
- **Anyone** can ask decision makers to help them make changes and they often get **supporters** to help - and ask together.
 - E.g. lots of young people took action together through the 'School Strikes for Climate' campaign and asked the government to make improvements to the environment.



We need to work together to have a clean air future for everyone! What could you do?



**What action(s) could you take?
Make a clean air promise!**



My clean air future school and clean air communications

Working independently, in pairs or small groups, use the worksheets to help you:

1. Choose the **clean air action** you think would make the biggest difference, to improve air quality at your school.
2. Identify who the:
 - **decision makers are** - the people who have the power make your clean air action happen.
 - **supporters are** - people who could help you speak to, or influence the decision makers.
3. Make a sample communication tool:
 - Decide **who** you need to communicate with to make your clean air action happen.
 - Decide **the best way to communicate** with that person / group.
 - Design **one example communication method**.

Share your ideas with the class

How could you use your class's ideas to start your own clean air campaign?

