

Air Quality School Engagement Talk

Carried out by WSP on behalf of the
Public Protection Partnership

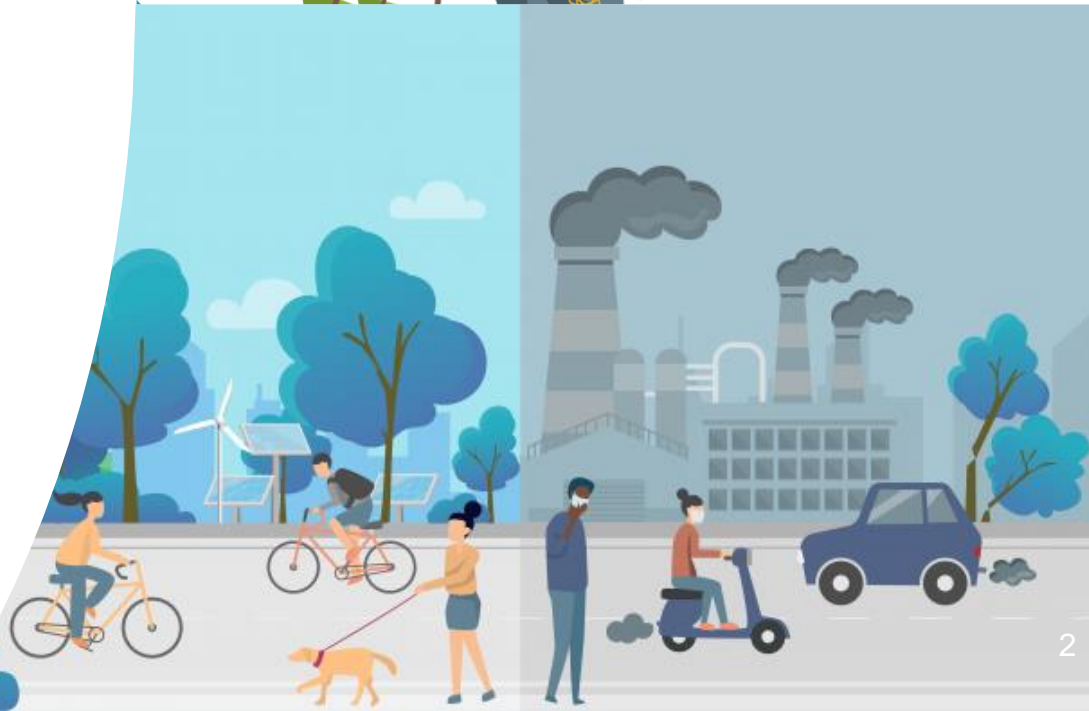


Department
for Environment
Food & Rural Affairs

**Public Protection
Partnership** | Bracknell Forest
West Berkshire
Wokingham

Talk Objectives

1. Discuss what air quality is and what it means to us
2. What causes it and where does it come from
3. What issues can air quality cause for humans and the environment
4. How we monitor air quality
5. What idling is
6. What you and your parents/carers can do to improve air quality











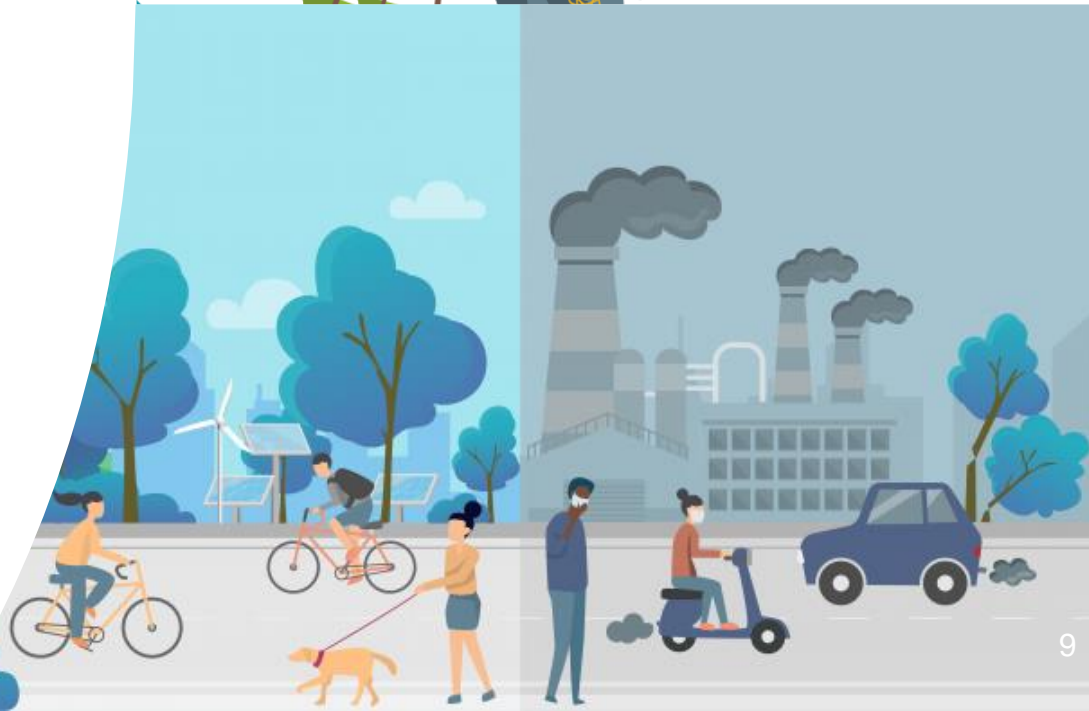




Group Task 1

In your groups, can you discuss these questions:

- What does the term 'air quality' mean to you?
- Why is it important for us to have clean air to breathe?



What is Air Pollution?

- Air pollution is when the air around us becomes dirty and unhealthy. Just like we need clean water to drink, we also need clean air to breathe.
- When the air is polluted, it can make us sick and cause problems for plants, animals, and the environment.
- Human activities produce many gases that are released into the air. Most of these pollutant gases are produced by the burning of fuels.
- When we breathe in polluted air, it can harm our bodies. It can cause problems like coughing, wheezing, and even make it hard to breathe. Air pollution can also cause long-term health problems like asthma, lung disease, and even heart problems.



What are the Important Pollutants?

Nitrogen Dioxide (NO₂) - A gas, formed by burning fuels

Particulate Matter (PM₁₀ and PM_{2.5}) - Very small particles formed by burning, chemical reactions and general dust

Ozone - A gas formed when the sun reacts with some gases and other chemicals

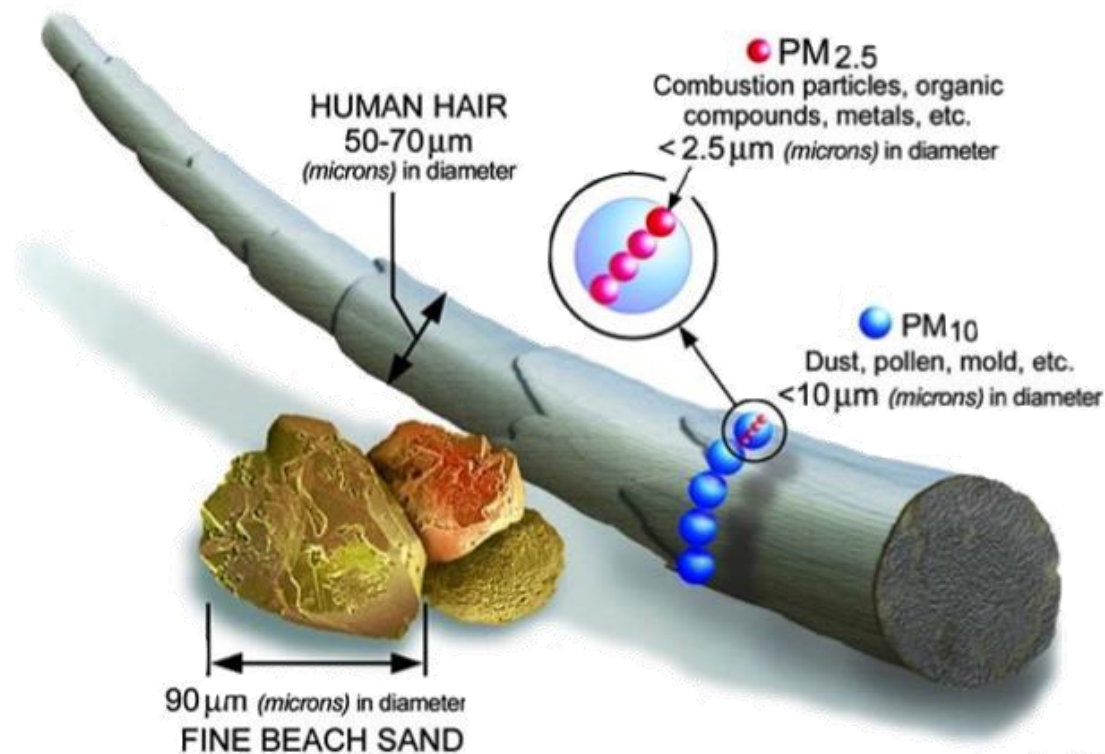


Image courtesy of the U.S. EPA

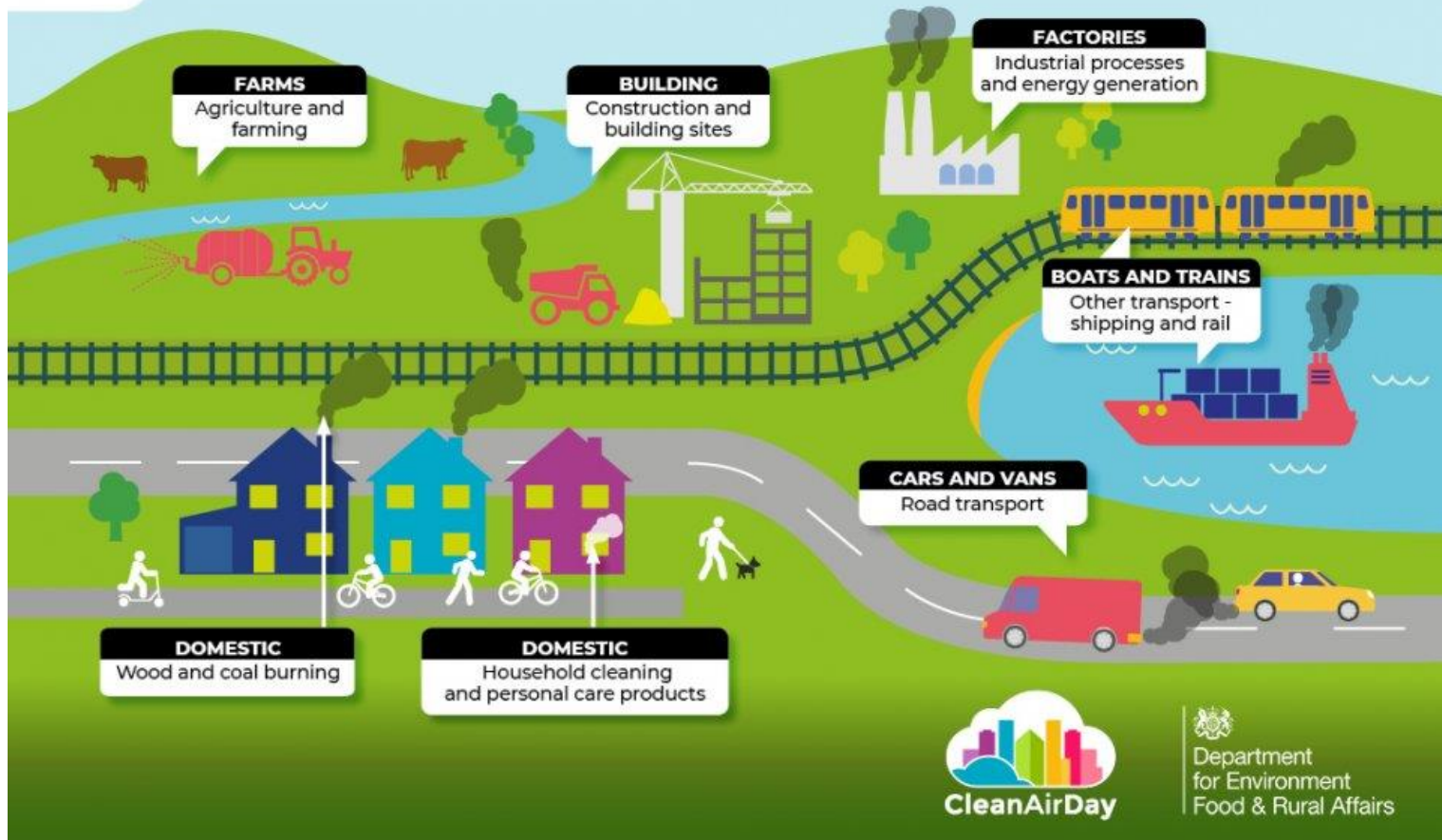
Group Task 2 – What Causes Air Pollution?

In your groups, can you discuss these questions:

- Can you name the main things that cause air pollution in the UK?
- What do you think are the main sources of air pollution that affect you and the local area?



Sources of air pollution



How Does Air Pollution Affect our Health?

- Particulate matter and nitrogen dioxide are the most harmful air pollutants for human health.
- The longer someone is exposed to air pollution, the more it can harm their health.
- Breathing in polluted air can irritate your eyes, nose and throat after a short period.
- Being in areas of high air pollution can cause asthma and even make asthma worse.
- Breathing polluted air can impact your organs and lead to future health problems.
- Being in an area of high air pollution for a long, long time has been associated with heart and lung issues, cancer and other health problems.



How do we Monitor Air Quality?

How you ever wondered how air quality is monitored around you?

- The government and local council are required to monitor how healthy the air is around us
- It also tells them how much they need to improve by
- Monitoring is done using diffusion tubes on lampposts and larger stations near to roads
- Idling surveys are a way of monitoring how many cars idle outside of schools.

Computers can also be used to predict what air quality is like across large areas



What is Idling?

One of the sources of air pollution around schools and towns is something called idling.

Idling is when people leave their car engine running while they have stopped,

- Can you think of where idling might happen?
- What can be done to stop it?
- How would an idling car affect you?



What Can be Done About Idling?

The easiest way to reduce idling is to turn the car off when it is not moving.

Ways you can help reduce idling:

- Ask your parents/carers to turn the car off when dropping you off at school and picking you up so that they don't idle.
- Remind your parents/carers that turning the car off can save them money.
- Ask your parents/carers how they feel about air quality.
- Walk, cycle or use public transport to get to school.



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SWITCH OFF YOUR ENGINE FOR CLEANER AIR

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Idling Myths and Facts



Myth

- Starting a vehicle uses more fuel than letting it idle.
- Idling is good for your engine.
- Idling doesn't cause much harm.



Fact

- Less polluting to turn your engine off and restart it than to leave it idling
- Idling makes an engine dirtier and increases wear and tear
- Idling vehicles make pollution worse and contributes to global warming



Group Task 3 – What Can be Done About Air Pollution

In your groups, can you discuss ways do you think we can make the air we breathe cleaner?

Can you name some examples?

- Try to use public transport as much as you can
- Try to reduce the amount your family uses the car
- Talk to your parents about air quality
- Choose active travel – walk, scoot and cycle to school
- Undertake idling surveys and raise awareness around the school
- Make sure everyone you know is aware of the dangers of air pollution
- Look at planting trees near to busy roads
- If you have a fireplace or log burner, ask your parents/carers to use it less



Thank You!

Are there any questions?