

# Pollutants



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...these are things in our environment that shouldn't really be there. They can cause harm to people, plants, and animals if there are too many of them.



# Emissions



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... the release of harmful things (pollutants) into the environment. They can come from man-made sources like factories or vehicles, or natural processes like volcanic eruptions and sandstorms.



# Combustion



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...is the process of burning something. When something is burnt it usually releases energy in the form of heat and produces gases like nitrogen dioxide, carbon dioxide and water vapour. When wood and diesel are burnt, they also release lots of small particles.



# Methane (CH<sub>4</sub>)



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...can cause pollution in a few different ways:

**Air Pollution:** - When this gas is burnt, it creates gases like carbon dioxide and nitrogen dioxide, which can pollute the air. These gases can make the air dirty and are harmful to breathe.

**Greenhouse Gas:** - This gas itself is a powerful greenhouse gas. When it gets into the air, it traps heat from the sun, making the Earth warmer, which contributes to climate change.

**Water Pollution:** - If this gas leaks into the ground, it can get into water sources and make the water unsafe to drink.

... it is a gas that helps us cook our food and keep our homes warm.

When we burn it, it turns into other things like air (nitrogen dioxide), a gas that plants need (carbon dioxide), and steam (water vapour).





# Nitrogen Dioxide



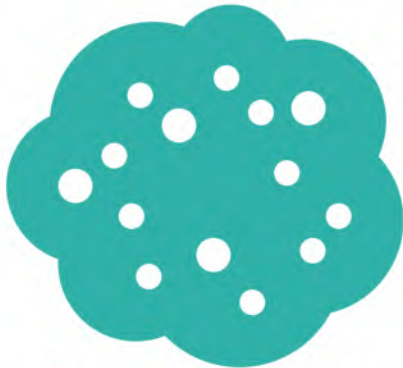
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a toxic gas that impacts on respiratory health (mainly from combustion in air).



# Particles



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AHEAD

...refers to tiny solid specks or liquid droplets suspended in the air. These come from lots of different man-made sources including vehicles, bonfires, wood burning stoves, agriculture, power plants, and industry. They also come from natural sources like volcanoes, sandstorms and forest fires. When levels are too high they can cause damage to our lungs. Cigarettes and vapes also emit harmful units.



# Idling



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AHEAD

...refers to running a vehicle's engine while the vehicle is not moving. When the engine is idling the car is still emitting lot of pollutants so it's always a good idea to switch engines off when waiting.



# Carbon Dioxide



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...is a colourless, odourless gas that is produced by burning fossil fuels, breathing, and various natural processes. It is a greenhouse gas that contributes to global warming and is essential for plant photosynthesis.





# Oxygen ( $O_2$ )



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...is a colourless, odourless gas that is essential for most forms of life on Earth. It makes up about 21% of the Earth's atmosphere and is needed by humans and animals to breathe and by plants for photosynthesis.



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