Nitrogen dioxide

The gas nitrogen dioxide (NO_2) comes from burning fossil fuels, car exhaust emissions and the use of nitrogen-based fertilisers used in agriculture.

Although there is far less NO_2 in the atmosphere than CO_2, it is between 200 and 300 times more effective at trapping heat.

Sulfur dioxide

Sulfur dioxide (SO_2) also primarily comes from fossil fuel burning, but can also be released from car exhausts.

SO_2 can react with water, oxygen and other chemicals in the atmosphere to cause acid rain.

Carbon monoxide

Carbon monoxide (CO) is an indirect greenhouse gas as it reacts with hydroxyl radicals, removing them. Hydroxyl radicals reduce the lifetime of carbon dioxide and other greenhouse gases.

PARTICULATES

What is particulate matter?

Particulate matter refers to tiny parts of solids or liquid materials in the air.

Some are visible, such as dust, whereas others cannot be seen by the naked eye.

Materials such as metals, microplastics, soil and chemicals can be in particulate matter.

Particulate matter (or PM) is described in micrometres. The two main ones mentioned in reports and studies are PM10 (less than 10 micrometres) and PM2.5 (less than 2.5 micrometres).

Scientists measure the rate of particulates in the air by cubic metre.

Particulate matter is sent into the air by a number of processes including burning fossil fuels, driving cars and steel making.

Why are particulates dangerous?

Particulates are dangerous because those less than 10 micrometres in diameter can get deep into your lungs, or even pass into your bloodstream. Particulates are found in higher concentrations in urban areas, particularly along main roads.