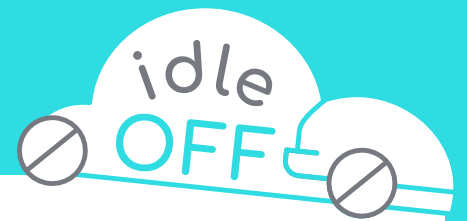


Name: _____



GLOSSARY!

Air quality

A term used to describe the how much or how little air pollution is in the air. 'Good air quality' indicates there are few pollutants in the air. It is important to note though, there is still some air pollution even when there is 'good air quality' and that even a small amount of pollution can affect our health.

Air Pollutants

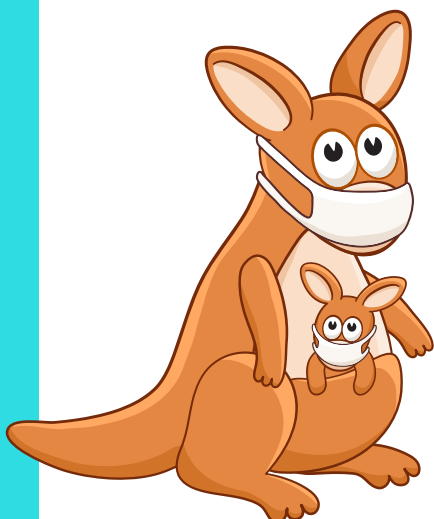
Airborne gases or tiny particles that are in the air, which cause damage to the environment and human health.

Air pollution hotspots

Areas that often have poor air quality (a higher amount of air pollution) in comparison to other areas. These areas are usually close to a large source of emissions, such as major roads, truck routes or coal-fired power stations.

Coal-fired power stations

Power stations that burn coal (a fossil fuel) to produce energy that is converted to electricity.



Combustion

The scientific word for 'burning'. When the fuel in vehicles comes into contact with oxygen and a spark, it 'burns' and creates the energy required to power the vehicle. All combustion reactions require oxygen and creates carbon dioxide (CO₂) and water (H₂O). Other products may also be created depending on the substance being burnt. In the case of fuel this is; sulfur dioxide, carbon monoxide, nitrogen dioxide and nitrogen oxides.

Diameter

The distance from one outer edge to the other of an object that is shaped like a circle or ball.

Emissions

A substance that has been released or 'emitted'. Vehicle emissions are the substances that the vehicle releases into the atmosphere when it's being used. Some of these emissions are harmless (e.g. water vapour - H₂O), some emissions are harmful to human health (e.g. the pollutants; NO₂, NO, CO, PM and SO₂) or harmful to the planet (CO₂).

Internal combustion engine

An engine that uses the heat and pressure formed by the combustion of fuel and air inside a closed compartment to produce power. Machines powered by ICE include cars, trucks, some aeroplanes and lawn mowers.



Some of the health impacts associated with vehicle emissions

Short term impacts include; Asthma, allergies, bronchitis and heart attacks. Long term impacts include; diabetes, stroke, lung disease, heart disease, lung cancer and lower respiratory infections like pneumonia.

Particulate matter

Tiny particles that are floating in the air (airborne) that we can breathe in. They range in size, which is measured by their diameter. The largest ones are called 'coarse particles' or 'PM10' and include everything which is less than 10 microns in diameter.

The smaller ones are called 'fine particles' or PM2.5 and include all particles less than 2.5 micron in diameter. Most particles produced by vehicle emissions are even smaller with a diameter that ranges from 0.02 – 0.13 μm (microns) and are called 'ultrafine particles'. They are so tiny, when we breathe them in, they move from our lungs into our blood stream and can then affect other parts of our body.

Image Source: US EPA

