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## Climate key words glossary

There are so many terms, words and phrases thrown about when it comes to the climate crisis. That can get confusing! We've tried to compile a list of the most common things we hear in climate conversations so you can use them with confidence!

### Atmosphere

The atmosphere is like an envelope of gases that covers the Earth. It stretches from the surface of the planet up as far as 10,000km above. It is made up of about 78% nitrogen, 21% oxygen, 0.9% argon, and 0.1% other gases. The other gases are tiny amounts of carbon dioxide, methane, water vapour, and neon amongst others. [The atmosphere has 5 different levels](#), each with a different purpose and characteristics: the troposphere, stratosphere (which includes the ozone), the mesosphere, the thermosphere and the exosphere.

### Biofuels

These are liquid or gas fuels made from plant material like wood, agricultural waste, fish oils and waste alcohol. Biofuels have lots of uses, but are mainly used in transportation, heating and generating power.

### Carbon

Carbon is an element found in all known forms of life on Earth. So, that means in people, animals, bacteria and more. In its purest form, carbon forms diamonds and graphite. It is also a major element in coal, natural gas and petroleum.

### Carbon dioxide (CO<sub>2</sub>)

Carbon dioxide, or CO<sub>2</sub>, is a naturally occurring gas. It is also the by-product of burning fossil fuels and biofuels, along with other industrial processes.



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## **Carbon footprint**

This is the total amount of greenhouse gases that are released into the atmosphere every year by a person, family, organisation or business. Every carbon footprint is unique and can be reduced through actions relevant to the person/organisation. This could be through choosing to drive or fly less, or through choosing products that are supplied locally for example.

## **Climate**

Climate refers to the average weather conditions over a long period of time, like a season, or a year, or a decade.

## **Climate change**

This is the large-scale and long-term shift in the planet's temperatures and weather patterns. This is a natural process that is heavily influenced by human activity. In the last 150 years, the world's climate has changed dramatically mostly because of people emitting too many greenhouse gases.

## **Climate crisis**

This occurs when the climate changes to a point where life becomes hazardous or unsustainable.

## **Climate emergency**

Many people are calling on governments and local authorities across the world to declare a Climate Emergency. This means that...

## **Deforestation**

This is the felling of trees on large scale to turn forests and jungles to non-forest purposes like agriculture and farming. This is a problem because trees are essential for capturing and storing carbon from the atmosphere. They also produce huge amounts of oxygen which we require to survive and provided habitats for thousands upon thousands of animals and organisms.



## Desertification

As the Earth's average temperatures get hotter, land is getting drier. Desertification happens when land becomes so dry and arid that very little can grow or survive there. This can also happen due to poor farming practices that prevent the soil from holding onto moisture.

## Ecosystem

An ecosystem is a geographic area where living and non-living things rely upon each other. They are made of living creatures like humans, animals, plants and bacteria, and non-living elements like rocks, water and air. Our entire planet is made up of ecosystems that are connected to and influence each other.

## Emissions

When talking about climate change, emissions refer to the release of gases into the atmosphere.

## Environment

The surroundings and conditions in which an organism exists and survives.

## Fossil fuel

Fossil fuels are fuels that are made from organic materials. They differ from biofuels in that they are created by decayed plants or animals exposed to the heat and pressure of the earth's crust. They take hundreds of millions of years to be created. These fossil fuels, like coal, are mined for use in people's homes and in industry.

## Global warming

The increasing temperature around the surface of the Earth. As temperatures increase, ecosystems are affected and some species start to struggle and even die out.



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## Greenhouse effect

This is the trapping of heat in the atmosphere closer to the Earth's surface. The more dense the greenhouse gases are in this area, the more the temperature in this part of the atmosphere increases.

## Greenhouse gases

Any gas or gas compound (like carbon dioxide, methane or nitrous oxide) that contribute to the greenhouse effect. This can include trapping heat in the atmosphere or absorbing infrared radiation.

## Net zero

This refers to a balance between the amount of carbon emitted into the atmosphere and the amount of carbon removed from the atmosphere. Removal of carbon from the atmosphere could happen naturally, through trees and oceans for example, or through man-made processes like [Direct Air Capture](#). Many governments and businesses are now working towards Net Zero through cutting emissions and trying to capture more carbon by planting trees for example. It is important to understand that a balance like Net Zero can only be achieved if emissions are cut.

## Ocean acidification

This is leading to the death and bleaching of coral reefs in the ocean as well as the death of other creatures. It happens due to an increase of carbon dioxide in sea water. The [ocean absorbs around 30% of CO<sub>2</sub>](#) in the atmosphere. So, the more CO<sub>2</sub> there is in the atmosphere, the more there is in the ocean, leading to a change in the levels of acidity.

## Ozone

This is a highly reactive gas compound found in the Earth's upper and lower atmospheres. In the upper atmosphere, it protects the Earth from the Sun's harmful rays. In the lower atmosphere it is a pollutant that can damage our health. It can be both natural and man-made.



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## **Reforestation**

The planting on forests on land that used to be forest but was once converted to other uses like farming.

## **Resilience**

When talking about climate change, resilience means being able to prepare for, respond to and recover from hazardous climate changes with minimum damage to people and the planet.

## **Sustainability**

The ability for something to continue to exist over time. This is often used to talk about how to maintain or 'sustain' the environments, resources and ecosystems of the Earth.