



Climate Change Word Glossary

Adaptation is a process where a plant or an animal changes over many years to better fit a Adaptation situation or habitat. **Atmosphere** The atmosphere is a layer of gases that surrounds the Earth's surface. You might know it better as air! It reaches nearly 100 km up into the sky and is mainly made up of Nitrogen and Oxygen. When something is biodegradable, it means it can be broken down by living organisms such as Biodegradable bacteria or by temperature. Examples include paper products and food scraps, like banana peels. Carbon dioxide (sometimes written as CO₂) is a greenhouse gas and a big contributor to **Carbon Dioxide** climate change. In nature, carbon dioxide is released when we breathe and as dead animals (CO_2) and plants break down. We also release a lot of carbon dioxide when we burn forests and fossil fuels like coal, oil, and natural gas. Your carbon footprint is the amount of carbon dioxide (and other greenhouse gases) you **Carbon footprint** release into the air because of your energy needs (i.e., heat, light, transportation). **Carbon sink** A carbon sink is an ecosystem that absorbs carbon dioxide from the air and stores it for a long time. Forests, oceans, and wetlands are all examples of carbon sinks. Climate is the average weather, patterns and trends that an area experiences over a long time. Climate Weather refers to short-term conditions that change day-to-day, like rain and snow. Climate change is a change to the long-term weather patterns because of increased levels of Climate change greenhouse gases in the atmosphere. These changes can happen naturally, but human activities are causing the climate to change faster. An area where living organisms (like plants, animals, and fungi) and non-living things (like Ecosystem rocks, air, and water) interact. Ecosystems are everywhere and can be as small as your garden or as big as the ocean! An emission is something that has been released into the world. When we're talking about **Emissions** climate change, it refers to greenhouse gases that are released into the air. Energy is the capacity to do work-like cook, move, grow, or change in any way. Energy can Energy transfer from one form to another, like how light can create heat. Energy conservation Energy conservation is the act of using less energy to reduce energy waste. For example, turning off the light when you leave a room instead of leaving it on. Energy efficiency means using technology to reduce energy waste. For example, **Energy efficiency** energy-saving light bulbs need less energy to do the same task as other light bulbs. **Fossil fuels** Fossil fuels come from the breakdown of dead plants and animals that lived long ago. They can be found in the Earth's crust and include oil, natural gas, or coal, which can be burned for energy. Global warming Global warming is the rise in global temperature due to the increased greenhouse gases in the atmosphere as a result of human activity. The greenhouse effect is a natural process that keeps the Earth at comfortable temperatures Greenhouse effect for humans, animals, and plants to live. Some human activities, like cutting down forests and burning fossil fuels release greenhouse gases into the air. This intensifies the greenhouse effect and causes the Earth's temperature to rise. Greenhouse gases (sometimes written as GHGs) trap the Sun's energy making the Earth Greenhouse gases warmer than it would have been without them. They include gases that both exist naturally in (GHGs) the air (like water vapour, carbon dioxide, methane, and nitrous oxide), and are human-made. Habits are behaviours that have become a regular part of someone's life. They can be really Habits hard to break, but if we work hard, we can stop our bad habits and make better ones. A landfill is an area set aside to dispose of waste materials, which are often buried and Landfill covered by soil. Methane is a gas that is emitted from industries and when we burn fossil fuels. It is also Methane released from animals (including humans) when they fart or burp and from landfills. **Mitigation** Mitigation refers to an action taken to lessen the harmful impacts of something. For example, reducing greenhouse gas emissions to prevent the planet from warming is a form of mitigation. Natural gas is a fossil fuel that is often burnt to produce energy to cook or heat buildings. **Natural Gas** Net-zero emissions is the balance between the amount of greenhouse gases released and the **Net-zero** emissions amount removed from the atmosphere. Nitrous Oxide Nitrous oxide is a greenhouse gas that exists naturally in the environment. A lot of extra nitrous oxide is released into the atmosphere by human activities such as agriculture, burning fossil fuels, and transportation. Oxygen is an element that exists as a gas. Oxygen is an important part of respiration Oxygen (breathing) and combustion (burning). Paris Agreement The Paris Agreement is an international climate change agreement. Its goal is to reduce greenhouse gas emissions and limit the impacts of climate change around the world. **Pollution** Pollution is when harmful materials are released into the environment. Pollution can cause harm to ecosystems, impact human health, and threaten the safety of living things. Recycling is how we collect, treat, and transform waste products into new products. Recycling Water can come in three states: liquid, solid (ice), and gas (water vapour). As the climate **Water Vapour** warms, more water is evaporated from the Earth's surface, which increases moisture in the atmosphere. Water vapour causes most of the greenhouse effect.

Sources:

Weather

<u>Summary for Policymakers report</u> https://www.ipcc.ch/sr15/chapter/glossary/

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understand an area's climate.

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Weather refers to the short-term conditions in a specific place that change day-to-day, like temperature, cloudiness, and rainfall. Over long periods, patterns in weather are used to