

# Sustainability Dictionary

**Biodegradable** - An object/material can be broken down naturally over time by actions of bacteria or other living organisms. Some items have to be incinerated (burned) or artificially degraded (using synthetic bacteria/enzymes) in order to be broken down.

**Carbon Footprint** - The amount of Carbon Dioxide that is released as a result of an activity or product. Both items and people can have a carbon footprint, we usually consider our own carbon footprint to be an additive collection of all of our actions/choices that produce carbon dioxide. For example, the mode of transport we use, where our clothes come from and what they're made of, how much food we waste in our households etc.

**Carbon Offset** - Investing in schemes that introduce ways of removing Carbon from the atmosphere, at the equivalent rate to the Carbon produced by your Carbon Footprint. For example, planting trees, renewable energy, removing plastic waste.

**Carbon Neutral** - The balance of your Carbon Footprint and Carbon Offsetting equal each other, so that your input and output of Carbon are the same.

**Climate Change** - The effect of long-term changes to our "predicted" or "expected" climate (including temperature, weather patterns, rainfall etc.). There are natural cycles in climate seen throughout the Earth's history, for example ice ages. However, in the small span of human history (and especially since the Industrial Revolution) we have seen an unnatural climb in atmospheric Carbon and therefore global temperature (Global Warming). As a result, our climate is changing rapidly in comparison to previous millennia.

**Did you know?** By increasing our planet's average temperature just 2 degrees Celsius, the world's weather and conditions can be completely altered. There are many reasons for this, but in a nutshell:

- Carbon is acidic, which changes the chemical make up of our oceans
- Warmer weather means that ice stores melt quicker (i.e. polar ice caps), and this means more fresh water is entering our oceans (which is salt water), and this again changes its chemical make up
- Both of these changes impact the way the water flows (Gulf stream etc.) which in turn impacts the weather through change in the water cycle.
- More extreme weather conditions are expected with climate change including stronger storms, bigger down pours of rain and longer periods of hot weather which also means more drought.

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**Environmental Impact** - The effect, whether it be positive or negative, than an activity has on the environment.

**Environmental Sustainability** - Ensuring that the rate of use of Earth's resources do not exceed the rate at which the planet can naturally replace them. This also includes investing in the long-term survival and ecological balance of the planet by reducing the level of human harm and impact on the Earth and its resources.

**Green Washing** - Some companies can use descriptions for products and services which make them seem eco-friendly, when in fact they are not. The harm is that people who are looking to reduce their impact, or make more nature-friendly choices, are fooled into buying into these services unknowingly.

**Natural Resources** - Any material or service provided by the planet that can benefit humans (for example, fossil fuels, timber and carbon cycling).

**Recyclable** - An object/material can returned to its previous state through a form of processing (i.e. mulching) in order to be reproduced and turned into something else. This means that new (or "virgin") resources are not required to make a new product.

**Reusable** - An object/material can be re-used/re-purposed for something the same as, or different to, its intended purpose. For example using a box that something was delivered to you in, to send another item to someone else in the post.

**Renewable vs. Non-Renewable** - Renewable resources are ones that do not have a harmful impact on the Earth when we benefit from them. These are often services provided by the Earth that occur naturally and have no maximum capacity, for example the sun and wind providing energy. We can also include geothermal, biomass and hydro energy in this category. Using these types of energy also have very little impact on the Earth as they do not release Carbon or other harmful substances as a by-product.

Non-Renewable resources are "finite", meaning there is a limited amount of them available. The impact of non-renewable resources is much greater as they are often difficult to collect (which means destruction or habitats and/or potential threats such as oil spills), and produce harmful gases when utilized for energy. Fossil fuels, coal, natural gas and nuclear energy are all non-renewable resources.