



YOUR CARBON FOOTPRINT

People talk a lot about the weather, which is not surprising as it affects our mood, how we dress and what we eat. 'Climate' however is not the same as the weather. It is the average pattern of weather for a particular region over a long period of time. The climate has and will always vary for natural reasons. Natural causes of this include tiny changes in solar radiation, volcanic eruptions that can cover the Earth in dust, reflecting heat from the sun back into space, and natural fluctuations in the climate system itself.

However, natural causes can explain only a small part of this warming. Many scientists agree that the rising concentrations of heat-trapping gases in the atmosphere, known as greenhouse gases, are being caused by human activities.

The atmosphere acts in a similar way to the walls of a greenhouse, letting in the visible light and absorbing the outgoing infra-red energy, keeping it warm inside. This natural process is called the "greenhouse effect." Without it, the global average temperature on earth

would be -18°C , whereas at the moment it is $+15^{\circ}\text{C}$.

Energy from the sun warms the earth's surface and, as the temperature increases, heat is radiated back into the atmosphere as infra-red energy. Some of the energy is absorbed within the atmosphere by 'greenhouse gases'.

However, human activities are adding greenhouse gases, particularly carbon dioxide, methane and nitrous oxide, to the atmosphere, which are increasing the natural greenhouse effect and making the world warmer. This man-made extra warming is called the "enhanced" greenhouse effect.

"Climate change" is the term that describes both the warming of the earth and all the consequences of this warming.

Climate change is already having an affect. It is increasing temperatures and melting polar ice caps, which is raising sea levels and causing more frequent storms and floods. If we do not take action, climate change will cause more and more damage and disrupt the way

our natural environment works, affecting our supplies of food, raw materials and other vital resources.

It is not too late to do something. But we have to act now if we want to limit climate change. It will take time for the changes we make now to take affect. Climate change is everyone's problem, and everybody is part of the solution - that includes YOU & ME!

Even small changes in our daily behaviour can help reduce the amount of greenhouse gases we produce without affecting our quality of life. In fact, they can save us money.

The European Commission's website gives us a long list of very practical ways we can reduce our carbon footprint. In short, we should **Take Control, Turn Down, Switch Off, Recycle and Walk.**

These are just a selection of their suggestions and many more can be found on their website: <http://ec.europa.eu/environment/climat/campaign/>

- **Switch off the lights when you don't need them.** Switching off 5 lights in hallways and rooms in your house when you don't need them can save around € 60 a year and avoid about 400kg of CO₂ emissions per year.
- **Do not leave appliances on standby** - use the "on/off" function on the machine itself. A TV set that's switched on for 3 hours a day (the average time Europeans spend watching TV) and in standby mode during the remaining 21 hours uses about 40% of its energy in standby mode.
- **Unplug your mobile charger when you're not using it.** Even when it is not connected to the phone, it is still draining electricity. There are estimates that 95% of the energy is wasted when you leave the charger plugged in all the time.
- **Use a tumble dryer only when absolutely necessary** - each drying cycle produces over 3kg of CO₂ emissions. Drying clothes naturally is by far the best way to do it.
- **Boil less water.** If you only boil just enough water for your cup of tea, you could help save a lot of energy.
- **Turn off your tap.** If you turn off the tap while brushing your teeth, you can save several litres of water.
- **Avoid putting hot or warm food in the fridge.** You save energy by letting it cool down first before placing it in the fridge.
- **Reduce waste.** Most products we buy cause greenhouse gas emissions in one or another way, e.g. during production and distribution. Using a reusable lunch box instead of a disposable one, saves the energy needed to produce new lunch boxes.
- Try one of the following ways to get to school/work: **cycling, walking, car-pooling, taking public transport, tele-working** (obviously your teacher might not like this one!). On average, for each litre of fuel burnt in a car engine, more than 2.5kg of CO₂ is released.
- **Plant a tree.** One tree of average size absorbs about 6kg of CO₂ per year, so over 40 years it soaks up about 250kg of CO₂. Before you print a document or an e-mail, **consider whether you really need to print it.** We use around 20kg of paper per month!