



Carbon Footprint Class Project

Large amounts of **greenhouse gases**, such as carbon dioxide (CO₂), in the atmosphere are causing **climate change**. Some human activities, such as making things in factories and raising farm animals, have produced lots of CO₂.

All of us contribute to greenhouse gas emissions, but some do **more** than others — how much we contribute is called our **carbon footprint**. A person's carbon footprint is the amount of CO₂ released into the atmosphere due to their actions. We can't get rid of our carbon footprints entirely, but it's important we all try to make our carbon footprint smaller than it currently is.

This activity challenges students to think about ways in which they can **personally take action** to **reduce** their carbon footprints, and **empowers** them to do so.

Things you'll need

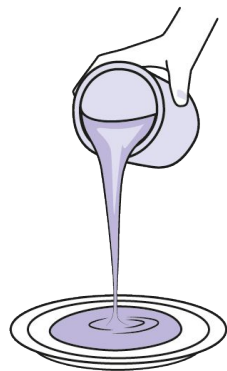
- one large sheet of paper
- biodegradable watercolour paints (please read through the instructions to get an idea of the amounts you will need)
- plates
- markers
- hand/paper towels

Instructions

Before you begin this activity, we advise using the pre-activity info below to discuss carbon footprints as a class and **brainstorming** ways they can be reduced.

Step 1

Lay out the sheet of paper on the floor and pour the paint onto the plates. You'll need enough liquid paint for each student to be able to coat the bottom of a foot and hand/paper towels available for them to clean their feet.



Step 2

Have your students take turns dipping a foot in the paint and treading on the paper. Make sure they know not to put any weight on the plate if it is breakable.



Step 3

Once the paint on the paper has dried, have your students take turns writing how they plan to reduce their carbon footprint inside their foot stamp.



Pre-activity discussion

Many of the things we do contribute to greenhouse gas emissions as well as our carbon footprint. Below you'll find a list of some of these things and their solutions.

Reducing your carbon footprint

Meat consumption Did you know that $\frac{1}{4}$ of all global warming emissions come from agriculture? And most of those come from livestock (meat and dairy agriculture)! Providing space for grazing also causes a lot of deforestation and other types of habitat destruction. Reducing your consumption of meat and fish can help avoid these consequences.



Water use Many places around the world are facing droughts due to climate change. It's always best to conserve water when we can! You can do so by taking shorter showers.



Energy use Most electricity is made by burning fossil fuels. This releases gases into the atmosphere that make our planet warmer. To reduce your electricity use, you can turn the lights off when you're not using them, and unplug electronics and appliances when not in use.

Material consumption Making all the things we buy (toys, furniture, food etc.) is all made using energy. Most energy is made by burning fossil fuels. This releases gases into the atmosphere that make our planet warmer. Buying fewer things can help avoid these emissions.



Using a car Most cars and vehicles use petrol/gasoline to move. This is a type of fossil fuel that, when burnt, releases greenhouse gases into the atmosphere. When you bike or walk, you avoid these gases going into the atmosphere and help to keep your local air unpolluted and safer to breathe.

Throwing things away Making all the things we buy (toys, furniture, food etc.) is all made using energy. Most energy is made by burning fossil fuels. When we reuse, fix, donate or gift things, we make sure fewer new things need to be made, preserving energy, reducing emissions, and saving us money! This also prevents things from ending up in the trash or in landfills which can be harmful to the local environment.





Throwing things away If you are unable to reuse, regift, fix or donate your items, then it's always a good idea to recycle them! This means fewer resources need to be taken from nature as they'll be using your items to make new ones!

Throwing food away It's always good to not waste food as a lot of greenhouse gases come from food production and rotting food in refuse sites. However, if you do need to throw food away, have a go at composting it! This makes yummy fertiliser to either help farms or help you feed the plants in your garden.



We welcome feedback and would be delighted to hear your thoughts on this activity. Feel free to send an email to schools@climatescience.org and we'll be sure to get back to you soon :)