



How to calculate your carbon footprint

Suggested time needed for activity 30 – 45 minutes

Location Indoors or outdoors

Context

This activity shares suggestions for learners to calculate their individual carbon footprint.

Natural Resources Wales' purpose is to pursue sustainable management of natural resources in all its work. This means looking after air, land, water, wildlife, plants and soil to improve Wales' well-being, and provide a better future for everyone.

Curriculum for Wales

Science and Technology	Maths and Numeracy	Humanities
<ul style="list-style-type: none">• What matters - Being curious and searching for answers is essential to understanding and predicting phenomena.	<ul style="list-style-type: none">• What matters - The number system is used to represent and compare relationships between numbers and quantities.	<ul style="list-style-type: none">• What matters - Enquiry, exploration and investigation inspire curiosity about the world, its past, present and future.
<ul style="list-style-type: none">• What matters - The world around us is full of living things which depend on each other for survival.		

Objectives

Learners will be able to:

- Calculate their carbon footprint over the course of a day, building up to a year.
- Consider how to make changes to reduce their carbon footprint.

Suggested equipment and resources

- [Information note - Carbon](#)
- [Resource cards - How to calculate your carbon footprint](#)
- [Worksheet - How to calculate your carbon footprint](#)
- Clipboards
- Pencils
- Calculators

Suggestions to complete this activity

- You could begin this activity by discussing with your learners what a carbon footprint is and how our everyday activities emit carbon – further information is available in our [Information note - Carbon](#).
- Utilising the suggested worksheets, clipboards and pencils, learners can work individually, in pairs or in



small groups to calculate their annual carbon emissions and therefore their carbon footprint. Learners can complete the missing values in the first column of their worksheet by finding the relevant [Resource cards - How to calculate your carbon footprint](#). To give your learners the opportunity to consider the different resource cards whilst being physically active, consider spreading them out across an outdoor area (if necessary, weigh them down with stones or tie them to trees, or peg them along a clothesline).

- Having calculated their total annual carbon emissions, learners could be asked to compare their results by ordering themselves in a line from the highest carbon footprint to the lowest. They could discuss how everyone, especially those with higher carbon footprints could reduce their impact by making changes in their everyday lives.

Suggested key questions

- What is a carbon footprint?
- What actions or activities might contribute to learners increasing their carbon footprint?
- How can we reduce our carbon footprint?

Suggestions for adapting for different needs/abilities

- If using our worksheet, you could work through it step by step using yourself as an example.
- Learners could complete the worksheet together, with the leader using an average for each of the activities following discussions with the group.
- You could break down each stage of the worksheet and check results and understanding before moving onto the next stage.
- Learners could work through the worksheet independently.
- Learners could complete the worksheet without calculators.

Suggested follow up activity/extension

- Learners could calculate the carbon footprint of their household, whole school, or another combination.
- Learners could work together to create an action plan to reduce their individual calculated carbon footprints and/or the carbon footprint of their household or whole school.

Other suggested resources

- [Activity plan - How can we live sustainably?](#)
- [Activity plan - Calculating the amount of carbon stored in a tree](#)
- [Activity plan - Calculating the amount of carbon stored in peat](#)

Learning in, learning about, and learning for the natural environment.

Looking for more learning resources, information and data?

Visit <https://naturalresourceswales/learning>

Alternative format; large print or another language, please contact:

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