

M.E.L.T – Monitoring our Environment, Learning for Tomorrow

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IRIS - Institute for Research in Schools.

Overview

M.E.L.T is a new IRIS project, supported by the UK Space Agency, which uses earth observation data to further our understanding of the polar ice caps and their vital role in the earth's climate system. Students are using measurements of levels of atmospheric CO₂ and research and innovate carbon reduction and capture solutions.

Aims

We are going to be Carbon Researchers. This Challenge 2041 activity has been structured into these main steps:

1. Calculate our school's carbon footprint.
2. Based on the results assess what can be done to reduce the total and take action.
3. After a period of time, around 6-12 months re-calculate the carbon footprint to examine if there has been any impact.
4. Act as Climate Force Ambassadors to support local primary school students to complete the same carbon calculations.
5. Compare our local schools with others from around the country.

Background information

The polar explorer Robert Swan has challenged young people to remove 326 million tonnes of CO₂ from the atmosphere by 2025. As part of this project IRIS has developed with Carbon Footprint Ltd a new student carbon calculator which will measure the carbon footprints created by young people at home and school. Students of any age can get involved and calculate their carbon footprint.

<http://www.2041.com/climateforce-challenge/>

This project supports current research into the potential effects of, and mitigation of, increased levels of carbon dioxide and methane on the Earth's climate.



Partner school

Methodology

Information on the following sections will be collected from our school bursar, office and site staff in addition to student and teacher surveys – building and vehicle fuel usage, waste disposal, water usage, school run (students and staff), school trips, staff travel to meetings. This information will be used to calculate the school's carbon footprint (*figure 1*).



Figure 1: Screenshots from the carbon calculator used in the project <http://researchinschools.org/calculator.html>.

Accessing Data from Other Schools -

Once the data is submitted via the carbon calculator this forms part of a database held by IRIS:

<http://dataserver.researchinschools.org/> The

different Carbon Researchers' team can then investigate how the school compares to others and share actions plans, measuring any impact.