

# Lowering our Island carbon footprint

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## Overview

One Friday we went on a climate strike along with many other students from around the island and marched around town demanding climate action. A petition was signed and handed to the politicians to persuade them to make Guernsey carbon neutral. We were inspired by this and decided to think about ways that we could make our school carbon neutral.

We used the carbon calculator to investigate travel, fuel bills, water and waste.

There are three main ways that we can feel we can make a difference:

- Persuading less people to come to school by car
- Finding a renewable source of fuel
- Reducing our food waste and food miles

## Background Information

A carbon footprint is the amount of carbon dioxide released into the atmosphere as a result of the activities of an individual, organization, or community. As CO<sub>2</sub> emissions are increasing this is leading to changes in our climate. Within 12 years the damage that this will cause will be irreversible. Unless we act now and try to reduce our carbon footprint, our generation will be the ones to suffer these consequences.

For Guernsey this will mean the North end of our island will disappear under water and we will have more severe storms that will cut off our supplies in winter.



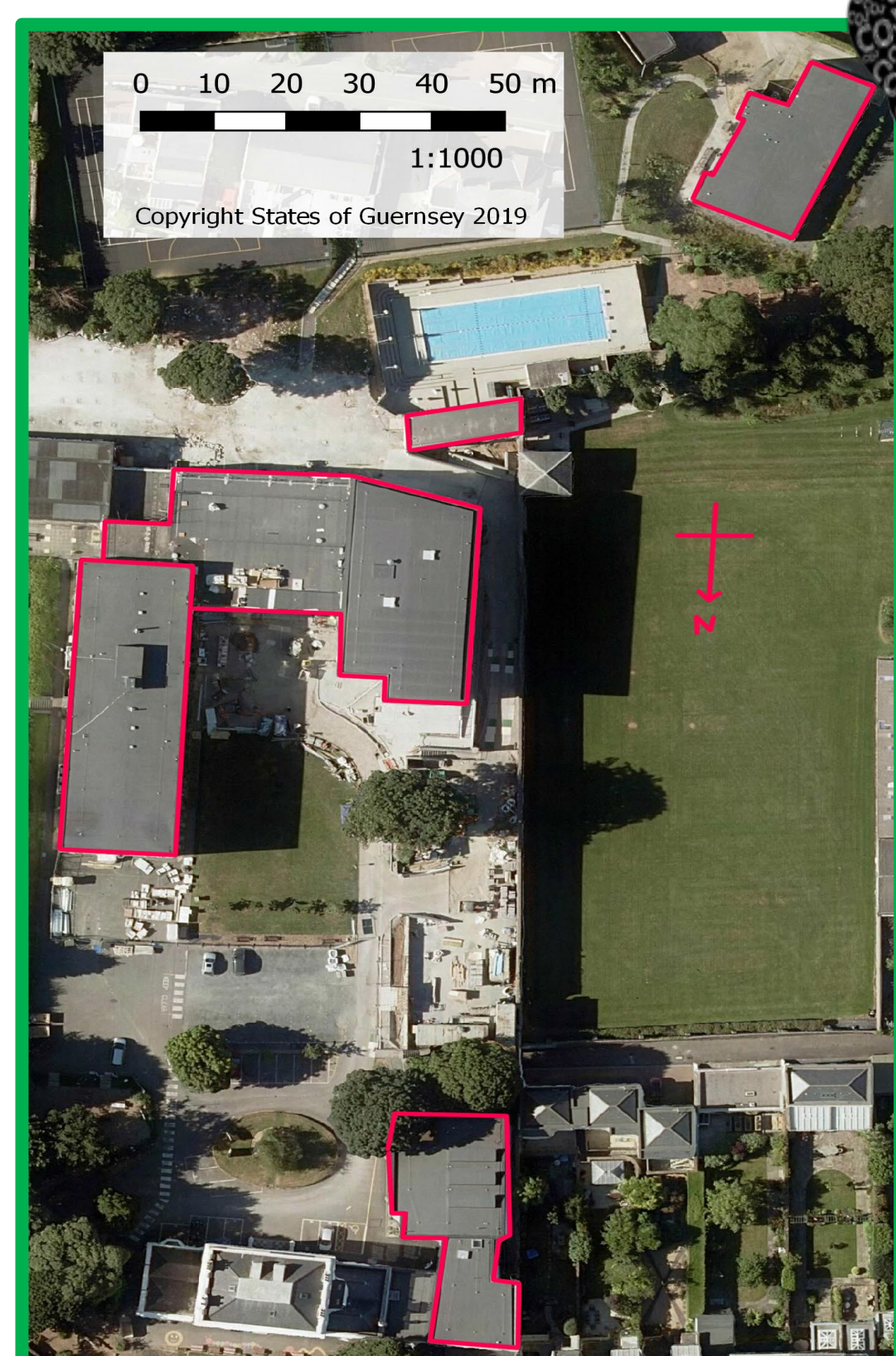
## Results: Fuel Source for school

100% of our energy is from electricity. Our electricity is from France and fed to us via a cable under the sea.

We visited Guernsey post office - they run an electric fleet of 92 vans using electricity from solar panels on their roof. We could power our school using this renewable source of energy.

We can fit 749 (1.5m x 2m) solar panels on our roof which would take up 2247 m<sup>2</sup>.

The problem with 749 solar panels on our roof is the total weight would be 8988 kg so we might have to reinforce the roof. It is also expensive but it is renewable - what price do YOU put on the environment.



The 654 Post Office solar panels give 200000kwh per year. They power off at night but we don't use the school at night. They feed electricity back into the grid so we would save money on electricity bills.

The flat roofs of our school are highlighted in red on the image from digimaps.

## Research Aims

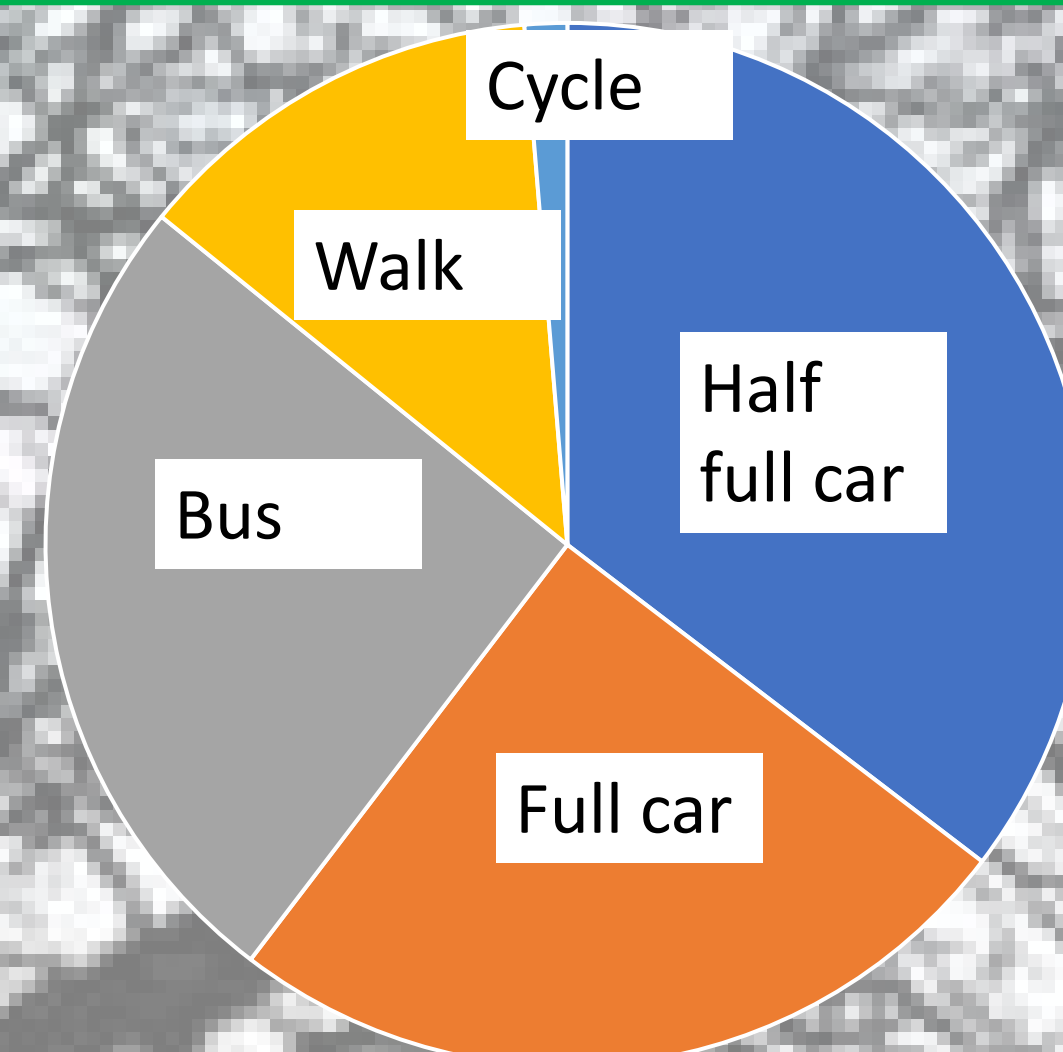
- To investigate how big our school carbon footprint is....
- To work out how out we can realistically lower this footprint....

## Experimental Method

- We made a questionnaire using survey monkey to investigate how people got to school
- We asked the Bursar for the fuel bills
- We went through the school calendar to list all the trips
- We asked the Deputy head how many staff had flown to the UK for CPD

## Results: Travel Survey

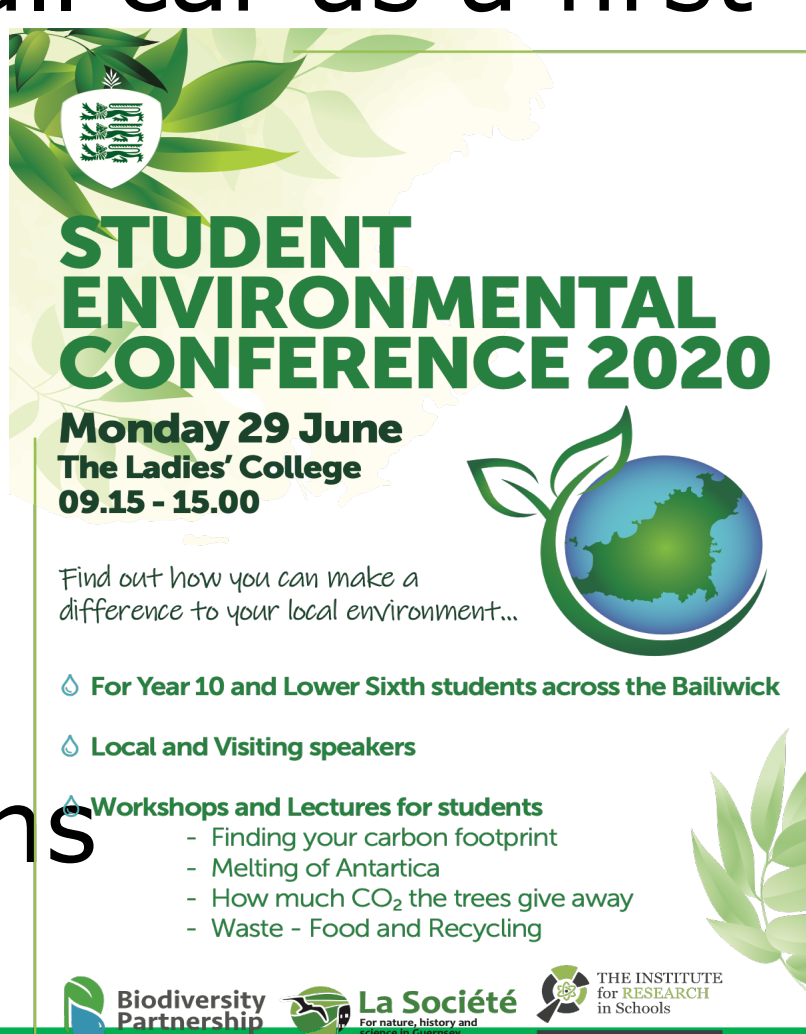
Number of Journeys Between Home and School each week



The total number of miles travelled by students and staff in day to and from school is approximately 1960 miles by car and 936 miles by bus. This makes the number of miles travelled by students at our school to and from school by bus and car in one 195 day school year enough to get you around the world 22.7 times... THIS NEEDS TO CHANGE!!!

It should not be too difficult as we live on an island 5 miles wide and 10 miles long. We need to persuade more people to cycle, walk and come by bus (or even a full car as a first step). This is our task for next term.

We are also a perfect location for electric cars and could easily have lots of charging points around the island. We are holding a **Student Environmental conference** next term and we will be asking the politicians why we can't do this.



## Analysis and Conclusions

**Our car usage is too high** and on a small island with a good bus service we should be able to persuade the pupils at our school to **get to school another way.**

Our **electricity usage contributes to global warming.** We are in a perfect position to install solar panels and have a **renewable** source of power for the school. We will be presenting this costed plan to the Bursar.

## Further work

**Our Youth Forum on the island is working with all the schools to reduce this and we have recently had an assembly on it.**

**Problems arising:** it was difficult sorting the different information which was often over different time periods. The questionnaire was only answered by a third of the school so we had to extrapolate the results. One of the questions was worded so that people misunderstood it and did not give us the information we wanted.