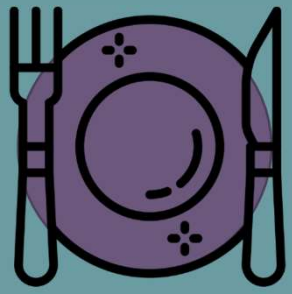


From your plate to the planet

The environmental impact of what we eat

Data Education in Schools

Introduction

Food Production is responsible for approximately **one third** of all greenhouse gas emissions contributing to global warming.

That’s about 19 times the amount from the commercial airline industry.

Learning Intentions

We are learning to:

- Find out different factors that contribute to the environmental impact of what we eat.
- Gather and compare data about the environmental impacts of different foods.
- Evaluate the source and quality of the data.
- Draw a conclusion based on the data about what will make the biggest difference in reducing our impact.
- Think creatively about how to do this.

Success Criteria

We will:

- Gather data using the online calculators.
- Create a visualisation
- Discuss what conclusions we can draw from the data.
- Design a label to show information about the carbon emissions of a food item.

Lesson structure

Part 1 and 2:

- Data Gathering & Visualisation
- Analysis & Discussion

Part 3:

- Creative Activity – design a food label

Data Gathering & Visualisation

Task 1:

Calculate the **food miles** of each of the food items using the food miles calculator.

If the country of origin is not specified, how could you make an educated guess?

foodmiles.com

Data Gathering & Visualisation

Task 2:

Visualise the data.

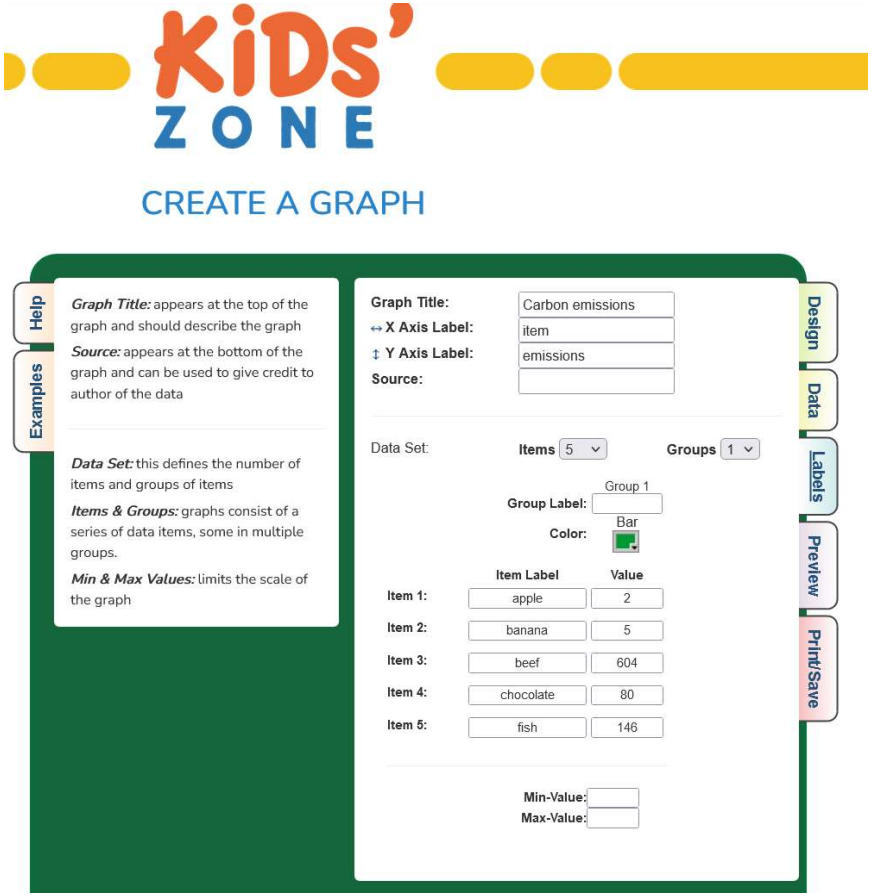
Three Options:

- Order the food cards from most to least number of food miles
- Draw a graph using paper and pencil
- Use graphing software or a free online tool such as [Kids' Zone Create a Graph]

foodmiles.com

Data Gathering & Visualisation

If you want to use the ‘Create a Graph’ go to dataed.in/createagraph



Data Gathering & Visualisation

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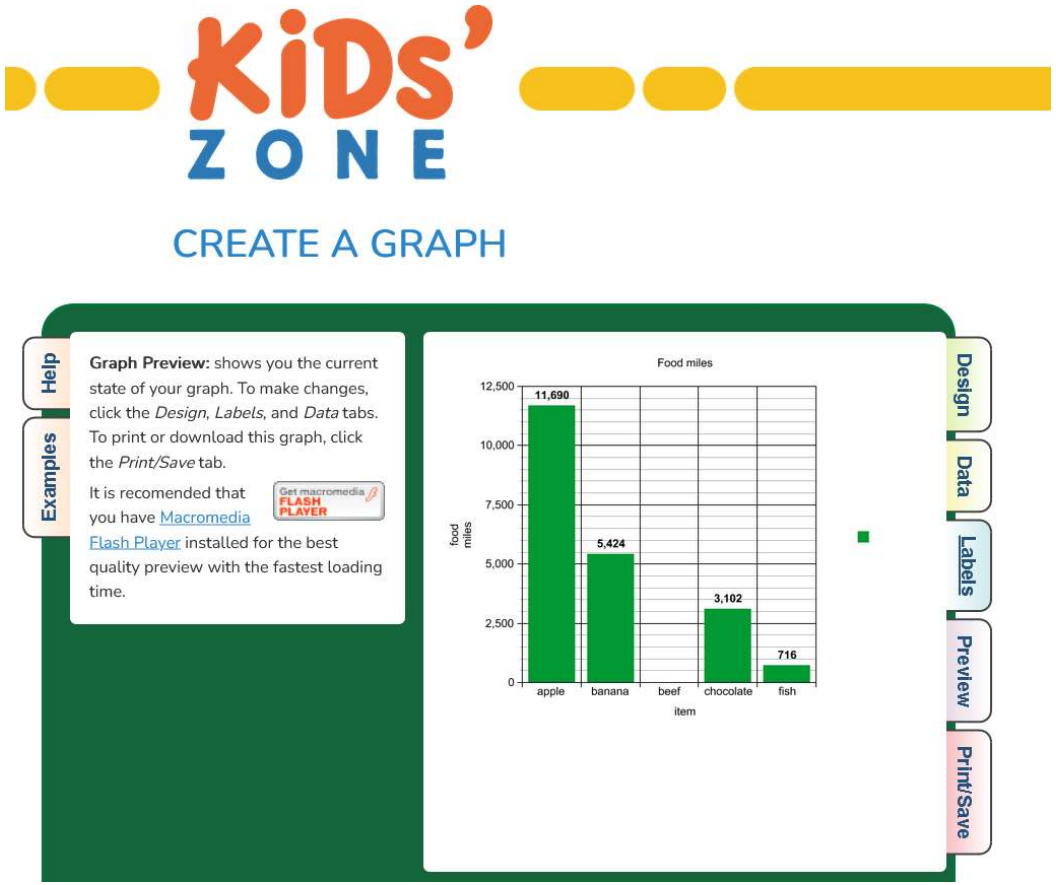


Data Gathering & Visualisation

Task 3:

Calculate the **carbon emissions** for each item.

Choose one of the three emissions calculators. Later you can compare your results with others in your class who have used a different calculator.

Data Gathering & Visualisation

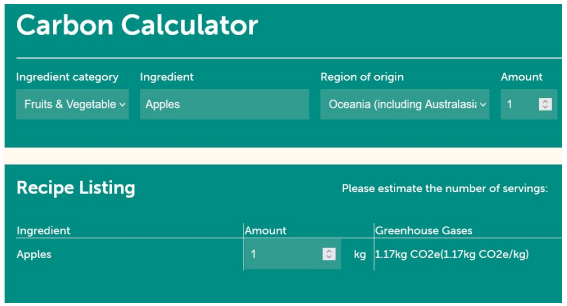
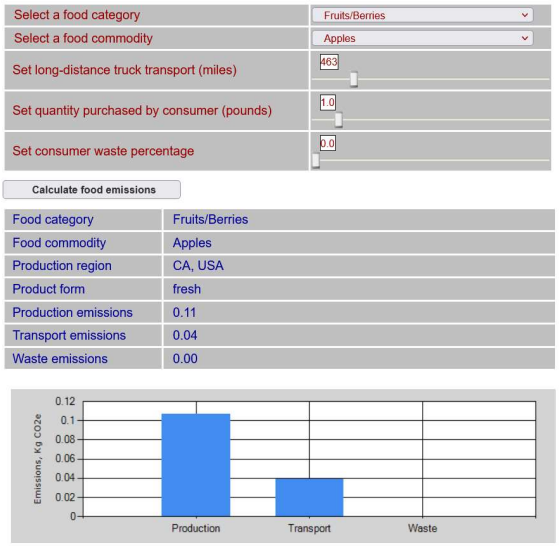


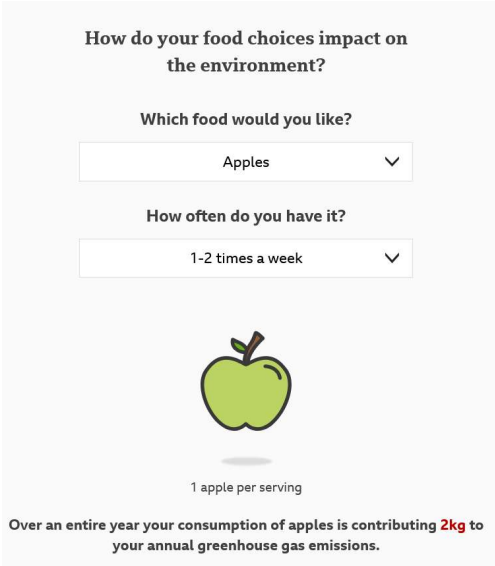
Plate Up for the Planet

dataed.in/foodcalc1



Carbon emissions calculator

dataed.in/foodcalc2



BBC food calculator

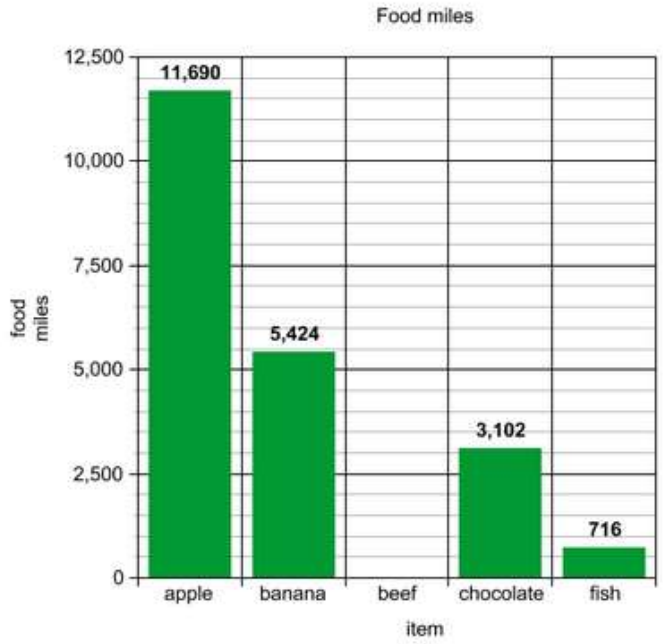
dataed.in/foodcalc3

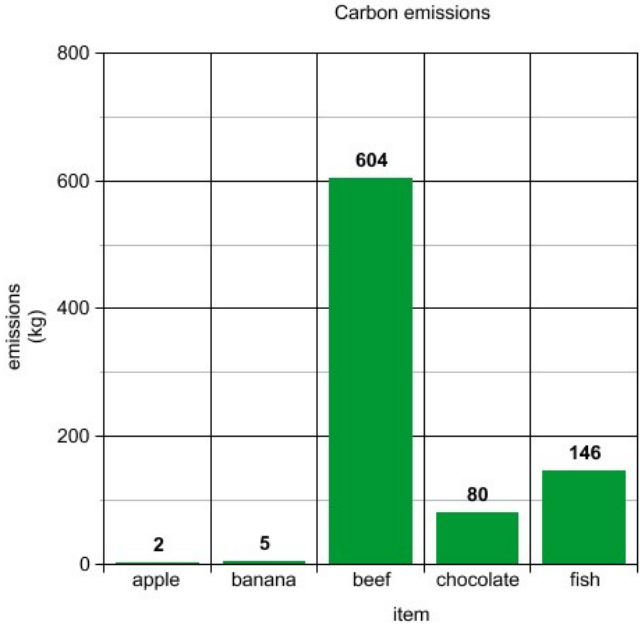
Data Gathering & Visualisation

Task 4:

Visualise your data.

Sample Graphs





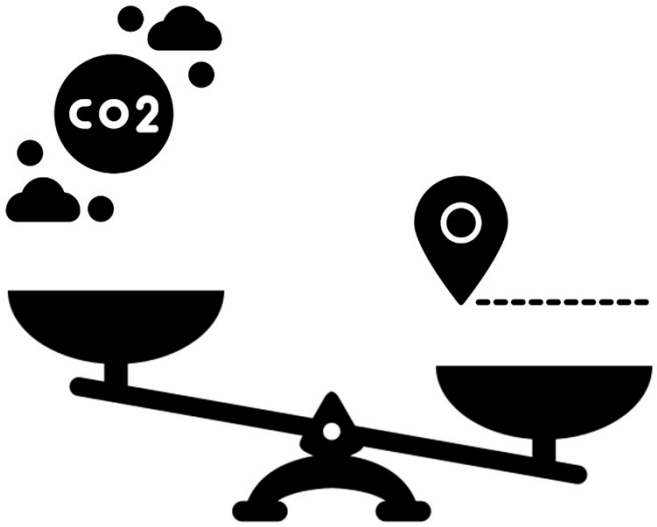
Data Gathering & Visualisation

Bonus Activity

Use a supermarket shopping website to find out the price per kg of each item.

Visualise the data.

Discussion questions



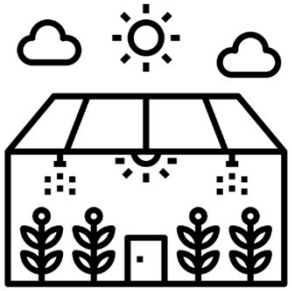
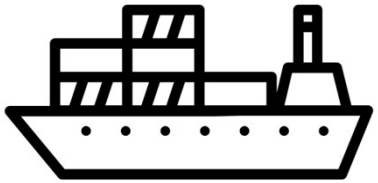
Are the items with the most food miles also the items with the most carbon emissions?

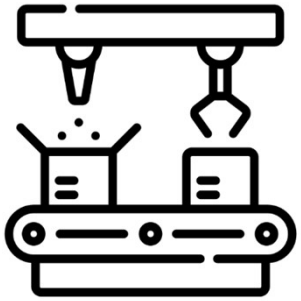
If you made graphs, how do the overall shapes compare?

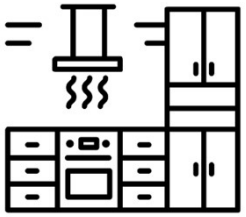
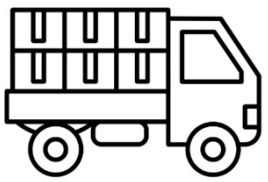
Discussion questions

How do the different calculators measure carbon emissions?

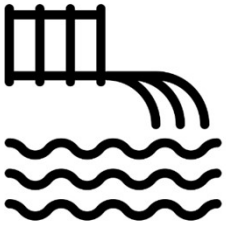
What do they factor in?
What is not factored in?



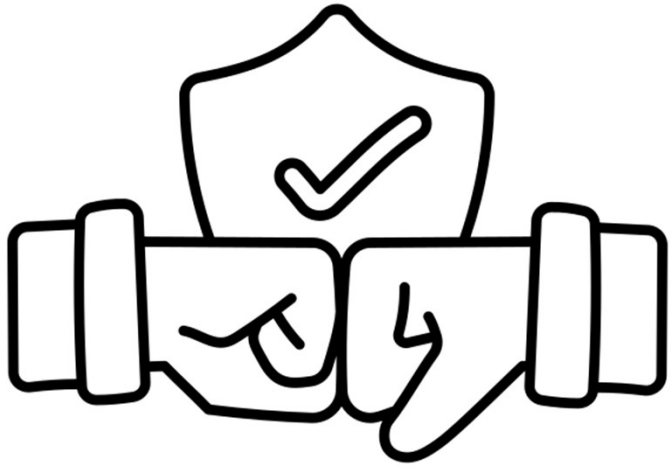


Discussion questions

Who made each calculator?

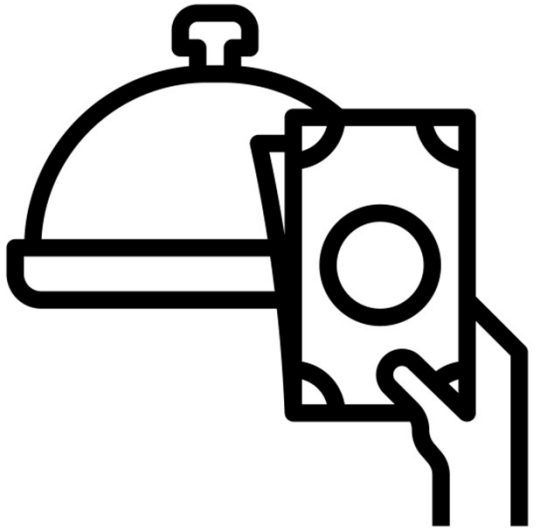
Do they have an agenda?

How trustworthy are they?

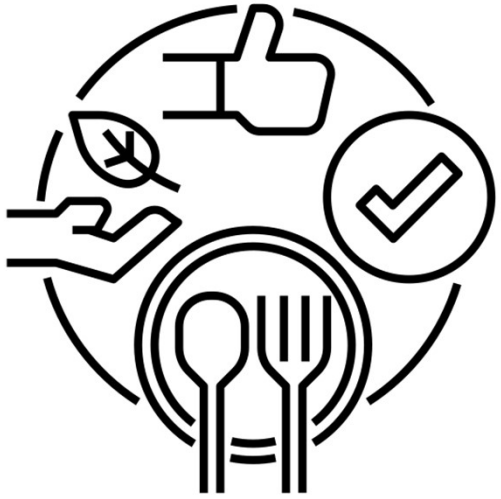


Discussion questions

If you completed the bonus task, are the most expensive foods also the ones with the most food miles or carbon emissions? Should they be?



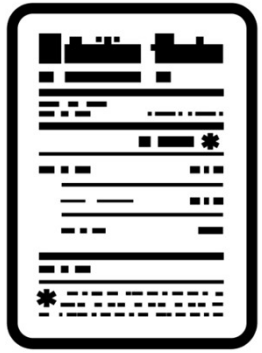
Analysis & Discussion



Come up with a list of principles that would help us make more sustainable food choices.

Based on the data, how should we rank these in terms of importance?

Creative task: Design a food label



Many food labels tell us ingredients and the country of origin, but not the other contributing factors to carbon emissions.

Design a food label that shows the carbon emissions of the different foods we eat.

Well done!

www.dataschools.education

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