

Topic based resource

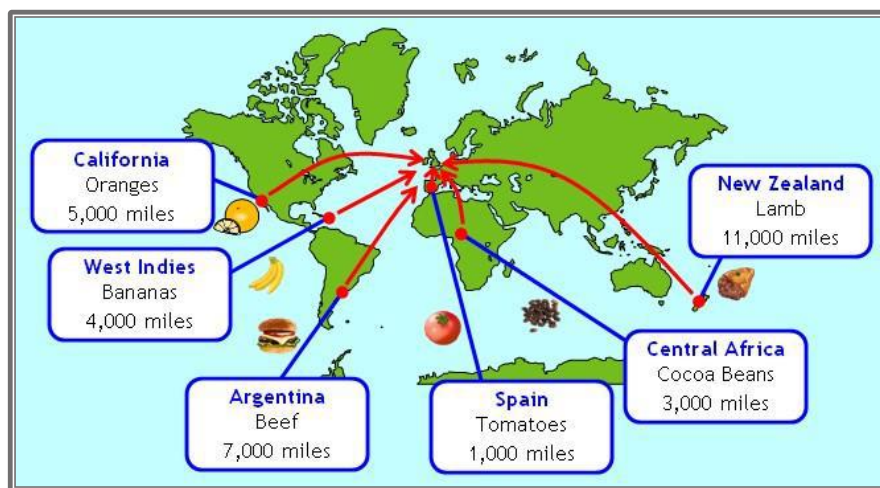
Tuck Shop Fruity Challenge



Background Information

Whether its cars, trains, buses, planes or boats, globally we depend on transport on a daily basis to; get us to school or work, for visiting family and friends or taking day trips. For getting food to our table and goods such as clothes, books and tv's to our shops. Transportation is important as it enables us to communicate and trade and moves us, animals and goods from one place to another.

The problem is every year there seems to be more and more traffic on our roads. This causes congestion and means that small journeys are often longer and more stressful, particularly in urban areas. Transport directly affects your schools and pupils, not just in terms of the length of the school run, but also in terms of road safety, pupil health and fitness.



Transport and air pollution

The transport sector globally is responsible for much of the urban air pollution problem. The World Health Organisation (WHO) estimate that 4.2 million people globally die prematurely because of the effects of air pollution, with low and middle-income countries seen as most at risk. This is because they often have less efficient public transportation systems and old diesel vehicles are still in use.

In Wales. Public Health Wales estimate that two thirds of urban air pollution is due to road traffic emissions which contain particulate matter (PM) and nitrogen dioxide (NO₂). Air pollution has been linked with conditions such as heart disease, stroke and lung problems. Some people, including children, the elderly and those with underlying health problems, are more at risk than others from the harmful effects of air pollution. As well as having a harmful impact on our health it can impact on our biodiversity.

Climate Perspective

Burning fossil fuels like petrol and diesel releases carbon dioxide and greenhouse gas into our atmosphere and transport is Wales' 3rd largest carbon emitting sector¹. Nearly all transport emissions are of carbon dioxide. This is a problem because while we need a level of CO₂ in our atmosphere to keep our planet at a hospitable temperature, too much will cause our planet to heat up too much, which is what is known as Climate Change. Aeroplanes and cars are the biggest climate change contributors in the transport sector. To mitigate the impact of transportation on our climate we need to move towards cleaner modes of energy generations, look at walking and cycling more often, and using and improving our public transport services.



It's not all bad news, in the UK we have seen some positive developments. Rail passenger numbers were up 9.4% in Wales between 2017-18 to 2018-19 while electric car sales are also on the increase – in October 2019² 1 in 10 UK cars sold were electric or hybrid³. We can all play our part. Making short journeys to school or work by cycling or scooting instead of using a car will significantly reduce the number of vehicles on the roads particularly at the busiest times of day. We can all look at how we could make fewer unnecessary journeys or how we could buy food locally so that the food doesn't need to travel as far to get to our plate.

¹Welsh Government (Transport: Sector Emissions Pathway report) 2018

²<https://www.bbc.co.uk/news/uk-wales-51573051> (accessed 30/4/20)

³<https://www.bbc.co.uk/news/uk-wales-50974699> (accessed 30/4/20)

Activity

Where in the World? Tuck Shop Fruity Challenge



Aimed at KS2

Global Goals:

- 3 – Good Health and Wellbeing
- 12 – Responsible Consumption and Production
- 13 – Climate Action

Aim – To find out where our food comes from and investigate ways to make the school tuck shop more sustainable

Objectives:

- Identify where in the world our fruits/vegetables grow and recognise seasonal products grown locally.
- Understanding how our food gets to our shops and understand the impact transporting food has on our climate
- Be able to make sustainable, informed food choices.

Resources:

- Map of the world printed or globe for each group of learners
- Coloured Sticky dots
- World distance sheet
- Seasonal veg work sheet
- A selection of fruit packaging from your tuck shop approximate 4 or 5 items per group

Activity Background Information:

Eating fruit at school is great and something that is recommended to help keep us fit and healthy. Many schools now have fruit tuck shops set up to cater for those pupils who don't bring in their own fruit from home. We are lucky in the UK to be able to produce a wide range of fruit and vegetables at various times throughout the year, but much of what we consume is not produced locally. This activity looks at how far some of the fruit or other items sold in a typical tuckshop may have travelled and then gives an opportunity to plan how you could reduce the mileage food has to travel. We are obviously dependent on many different countries and the people in them to supply us with the food that we eat. A great extension to this activity would be to investigate what life is like for some of the people growing the fruit that we love to eat.



Activity:

1. Look at the fruit packaging on your table and see if you can locate the country of origin for each packet. Once you have done this, stick a coloured dot on the country on your World map.
2. Using the World Distances sheet, find the countries that you have identified on your map and calculate the total kilometres travelled of all the fruit in your tuck shop. Discuss your findings. (If you can't find the Country on our list, look it up online or use the closest location.)
3. Some fruit has a longer shelf life than others so can be shipped rather than flown. Which of the products in your tuck shop are likely to have been flown in and which shipped? Shipped fruit like bananas will have a much lower carbon footprint than fruit that's come by plane.
4. We are lucky in the UK that we are able to grow a lot of our own produce. Using the seasonal produce chart, see if you can plan a termly fruit (or veg) tuck that has a lower mileage than your current one. It doesn't have to be all from the UK and you need to make sure that it is likely to be eaten!

Extension Ideas:

This could link to a visit to a local supermarket to investigate how much of their produce is local and how far favourite fruits travel. Should we focus on buying Fairtrade over locally produced? And what is the difference between a Fairtrade banana and a non-Fairtrade banana?

See if you can work out the carbon footprint of your fruit tuck (a great numeracy exercise!)



Fruit and vegetable seasonal chart

Fruit & Vegetables	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Apples	✓	✓	✓					✓	✓	✓	✓	✓
Asparagus					✓	✓						
Aubergine					✓	✓	✓	✓	✓			
Blackberries								✓	✓	✓		
Broad Beans					✓	✓	✓	✓	✓			
Broccoli	✓	✓	✓					✓	✓	✓	✓	✓
Brussel Sprouts	✓	✓	✓						✓	✓	✓	✓
Cabbage					✓	✓	✓	✓	✓	✓		
Carrots	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓
Cauliflower	✓	✓	✓				✓	✓	✓	✓	✓	✓
Celery				✓	✓	✓	✓					
Cherries					✓	✓						
Cobnuts							✓	✓	✓			
Courgettes						✓	✓	✓	✓			
French Beans						✓	✓					
Gooseberries						✓	✓					
Grapes									✓	✓		
Leeks	✓	✓						✓	✓	✓	✓	✓
Lettuce					✓	✓	✓	✓	✓	✓	✓	
Marrows								✓	✓	✓		
New Potatoes					✓	✓	✓	✓	✓			
Onions	✓	✓	✓				✓	✓	✓	✓	✓	✓
Parsnips	✓	✓	✓					✓	✓	✓	✓	✓
Pears	✓	✓	✓						✓	✓	✓	✓
Peas						✓	✓					
Plums									✓	✓		
Potatoes	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
Pumpkins	✓	✓	✓					✓	✓	✓	✓	✓
Radish			✓	✓	✓	✓	✓	✓	✓	✓	✓	
Raspberry						✓	✓	✓	✓			
Rhubarb				✓	✓	✓	✓	✓	✓			
Runner Beans							✓	✓	✓	✓	✓	
Spinach				✓	✓	✓	✓	✓	✓	✓		
Spring Onions						✓	✓	✓	✓	✓	✓	
Strawberries						✓	✓	✓	✓	✓		

World distances 'as the crow flies' from the UK

Argentina –Buenos Aires	10,977km	6821 miles
Bangladesh	8017 km	4981 miles
Belgium – Brussels	540km	335 miles
Brazil – Rio	9145km	5683 miles
Burkina Faso	4425km	2750 miles
Chile – Santiago	11,501km	7146 miles
China – Beijing	8287km	5149 miles
Columbia – Bogota	7866km	4888 miles
Congo	6502km	4040 miles
Costa Rica – San Jose	8513km	5290 miles
Cuba – Havana	7275km	4521 miles
Denmark – Copenhagen	1136km	706 miles
Dominican Republic	6738km	4187 miles
Egypt – Cairo	3699km	2298 miles
France – Paris	492km	305 miles
Gambia – Banjul	4398km	2733 miles
Greece – Athens	2598km	1614 miles
Hong Kong	9641 km	5991 miles
India – Delhi	6916km	4298 miles
Italy – Rome	1598km	993 miles
Kenya – Nairobi	6969km	4330 miles
Malawi	8309km	5163 miles
Mexico City	8725km	5421 miles
Morocco – Marrakech	2245km	1395 miles
Netherlands – Amsterdam	563km	350 miles
New Zealand – Wellington	18,868km	11,724 miles
Pakistan	6047 km	3757 miles
Poland – Warsaw	1655km	1028 miles
Saudi Arabia – Riyadh	5155km	3203 miles
South Africa- Cape Town	9722km	6041miles
Spain – Madrid	1239km	770 miles
Sri Lanka	8723 km	5420 miles
Thailand – Bangkok	9727km	6044 miles
Tunisia – Tunis	1946km	1209 miles
Turkey	2840 km	1765 miles
USA – New York	5366km	3334 miles
USA – San Francisco	8479km	5269 miles



Food	Miles Travelled

Curriculum Links

Purposes:

- Ethical, informed citizens of Wales and the world.

AOLE's:

- Humanities

What matters statements:

- Informed, self-aware citizens engage with the challenges and opportunities that face humanity and are able to take considered and ethical action.

AOLE's

- Health and Well Being

What matters statements:

- Our decision-making impacts on the quality of our lives and the lives of others.

AOLE's

- Mathematics and Numeracy

What matters statements:

- Statistics represent data, probability models chance and both support informed inferences and decisions.



cadwch keep
gymru'n wales
daclus tidy

33-35 Heol yr Eglwys Gadeiriol, Caerdydd, CF11 9HB | 33-35 Cathedral Rd, Cardiff, CF11 9HB
029 2025 6767 keepwalestidy.cymru info@keepwalestidy.cymru

Cadwch Gymru'n Daclus yn gwmni wedi ei gyfyngu trwy warant. Rhif Cwmni: 4011164 Rhif Elusen: 1082058 Rhif TAW: 850 3958 13
Keep Wales Tidy is a Company Limited by Guarantee. Company Registration Number: 4011164 Charity Registration Number: 1082058 VAT Registration Number: 850 3958 13

