



CONSCIOUS CONSUMERS

Food Miles

Workbook

Name _____



A fresh look at agricultural science and food



This project aims to start conversations about topics of importance to society by looking at overlapping topics of Food Miles, Plant-Based Diets, Personalised Nutrition, Rewilding, Animal Welfare and Climate Change.


There is a lot of information on social media and in the news about these topics but it's often hard to know what to believe when stories seem to contradict each other. These workshops will give you an introduction to some of the key facts and encourage you to look more closely at sources of information available online to determine how reliable they are.

We all have to make choices, particularly around the food we eat and our choices as consumers really do have the power to shape the world we live in.

Following each workshop, we invite you to undertake further research and encourage others to become more Conscious Consumers!



The **Food and Farming Discovery Trust** coordinate and communicate existing food, farming and countryside educational activity in Norfolk. They also develop new activity and support educators and providers to enhance the learning outcomes for all young people in Norfolk through food, farming and the countryside.

 discoverytrust.org.uk



The **Science, Art and Writing (SAW) Trust** is a science education charity (no.1113386) developed in 2005. SAW takes a fresh approach to science education, using intriguing images to initiate exploration of scientific research through activities in practical science, creative writing and visual arts, aimed at as wide an audience as possible.

 sawtrust.org




A skills award to support and inspire the next generation into Science, Technology, Engineering, Maths and Medicine (STEMM). Students aged 13-19 can register through their school or at home and start working towards a bronze, silver or gold level award. Ask your teacher about how you can get involved or visit our website.

 ysawards.co.uk



LEAF Education works with members and partners to promote visits to farms. LEAF Education also provides access to a range of high-quality educational resources and activities for school-based studies and outdoor visits.

 leafuk.org/education

Funded by:



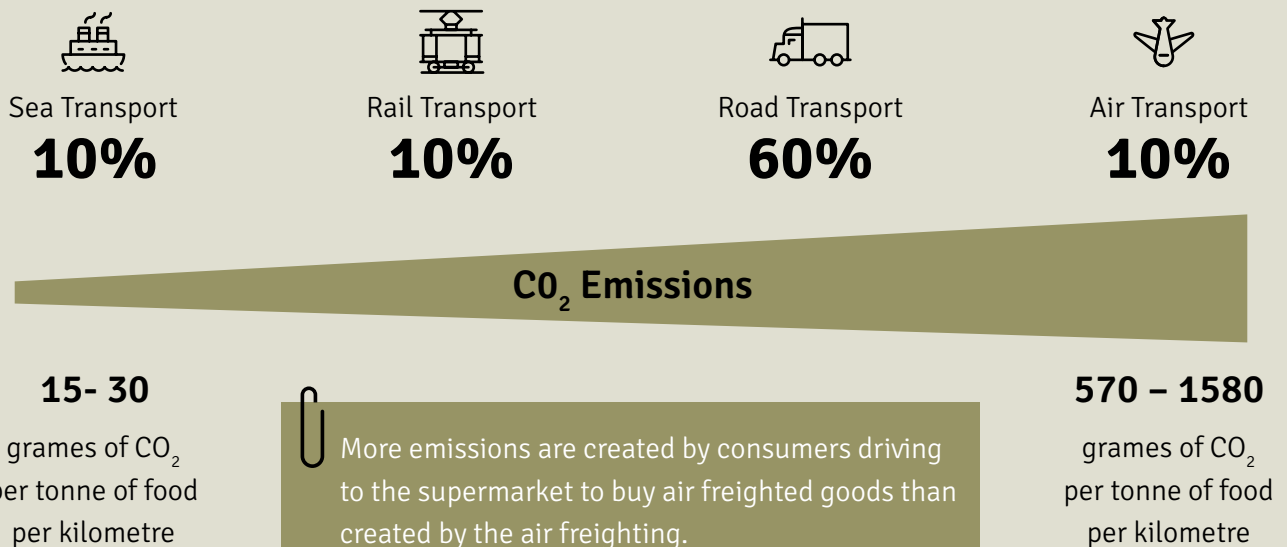
What are Food Miles?

Food miles is the term used to describe the distance food is transported from the place it's produced to the end consumer (us).

The effect of food miles is measured by the amount of CO2 emissions produced, this is usually measured per tonne of food per kilometre.

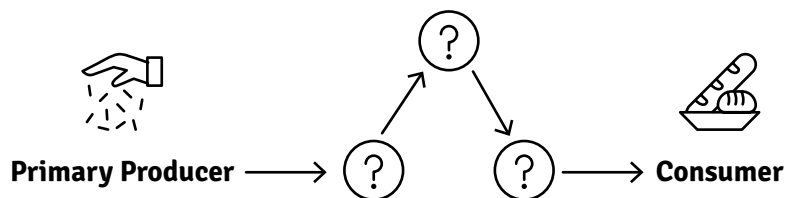


How is our Food Transported Globally?



figures acquired from www.alimentarium.org

What other miles are involved?



Can you think about any additional miles? Eg. Transport from supermarket to home

Factors affecting our food choices



Seasonal restrictions and availability



Pricing

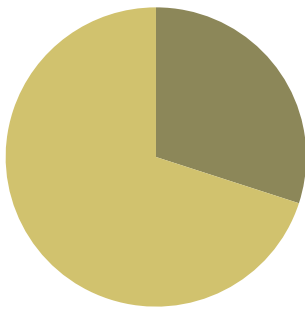


Convenience and choice



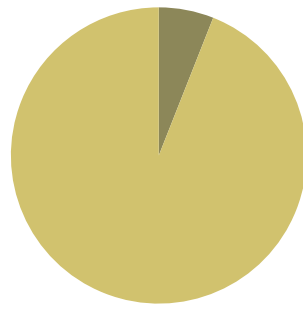
Ethics

Putting food miles in context



■ Food Sector ■ Other

The food sector accounts for up to **30% of all global green house gas (GHG) emissions.**

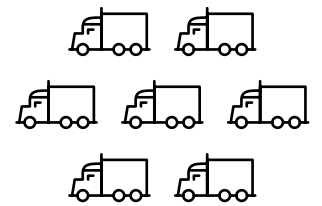


■ Transport ■ Other

Transport accounts for 6% of all GHG emissions produced within the food sector.



Transport



Kitchen Appliances

Kitchen appliances produce **7 times more carbon emissions** than transport within the food sector. End consumers use most energy of all in the food sector.



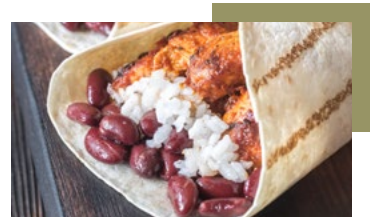
What factors affect your food miles?



Activity Sheet One

Estimated Food Miles

To explore our own food miles we are going to look at the origin of the top 5 ingredients of three popular dishes and **work out the food miles for each dish**. Have a guess at where each ingredient comes from and work out how many miles you think your ingredients have travelled. The dishes we will be looking at are:



Roast Dinner

- Beef
- Potato
- Carrot
- Onion
- Broccoli

English Breakfast

- Eggs (free range)
- Bacon
- Baked beans
- Tomato
- Button mushrooms

Chicken Burrito

- Chicken (free range)
- Rice
- Pepper
- Avocado
- Lime

Dish Name: _____

Ingredient

Origin

Miles

Total Miles

Dish Name: _____

Ingredient	Origin	Miles
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
Total Miles:		_____

Dish Name: _____

Ingredient	Origin	Miles
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
Total Miles:		_____

Total combined food miles of all 3 dishes: _____

*The information we will use to compare your answers against was obtained from surveying a large, well known supermarket in the winter of 2019.



Activity Sheet Two

Cutting Down on Food Miles

Can you buy the ingredients more locally? – **Use the ingredient cards to** see if you can source the same ingredients, more locally.



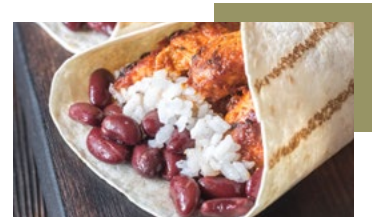
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Dish Name: _____

Ingredient

Origin

Miles

Total Miles

Dish Name: _____

Ingredient	Origin	Miles
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
Total Miles:		_____

Dish Name: _____

Ingredient	Origin	Miles
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
Total Miles:		_____

Total combined food miles of all 3 dishes: _____



How many food miles have you saved by shopping more locally?

(compare with total miles from activity 1)



Activity Sheet Three

Calculating CO₂ emittance

Work out the total CO₂ emittance for each journey.



Food origin

Lancashire

Morocco

South Africa

We are moving one tonne of tomatoes by:



Which has a CO₂ emittance of:

120gm/tonne/km

30gm/tonne/km

1500gm/tonne/km

The distance being travelled is:

300km

2166km

9513km

Total CO₂ emittance for this journey is:

Still curious? Here's some further resources



Department for Environment, Food and Rural Affairs (DEFRA) website and reports.

UK government department for environmental protection, food production and standards, agriculture, fisheries and rural communities.

Food association groups and websites.

For every food type, be it fruit, vegetable or meat, there is an association that knows all the ins and outs of its production and consumption - check them out for more detailed facts and figures.

The Food Climate Research Network (FCRN).

Works to inform and connect stakeholders with a common interest in understanding and building sustainable food systems.



Conscious Consumers Topics

Now that you have completed the Food Miles topic, why not try one of the other Conscious Consumers topics?



Animal Welfare



Plant-based Diets



Food Miles



Rewilding



Personalised Nutrition



Climate Change