Sustainable Food – Food Miles

Introduction –

The foods that we choose to eat can have many different impacts on the environment. With an ever growing world population everyone needs to be mindful of the methods we use to produce, transport and retail our foods, to protect our global environment from depletion of it's resources.

Key Questions –

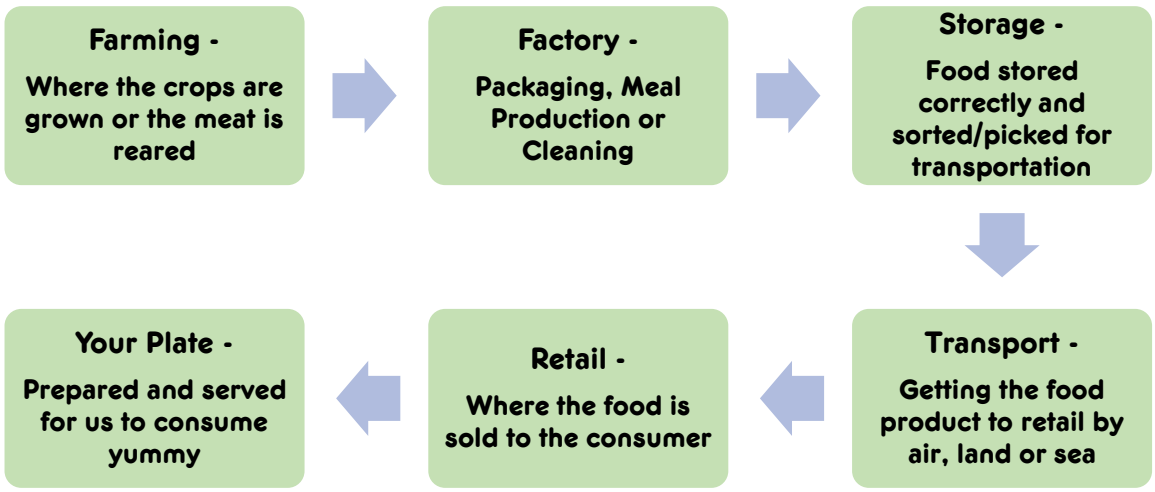
Where does our food come from?

What are the main impacts of transportation?

What can we do to reduce our impact?

Where does our food come from?

The quickest way to start is to look at the journey our food takes. We refer to this as the field to fork journey.



Next we need to consider the distance that our food travels during each stage and the impact this will have. As an example we will follow the journey of a Banana.

World leading exports of banana's come from tropical regions and include Central and South America and the Philippines, with over 90% of exports originating in these areas. (Bananas | FAO | Food and Agriculture Organization of the United Nations)

The Banana Journey
From Field to Fork

Farming

Bananas are grown on trees and grow in temperatures above 27 degrees Celsius. Each tree will produce huge bunches of bananas. The growing period from planting to harvesting is 9-12 Months.

Factory

Big bunches of banana's are then transported to a processing room. Here they are washed, inspected and cut into a size for the retail market.

Storage

This may be done at the processing plant or at the port before transportation. Banana's at this stage are still green and not fully ripened so will be stored in a refrigerated area.

Transport

Once port inspection has been carried out the banana's will be moved onto a refrigerated ship and the long journey will begin, from Central America this will be between 6 and 12 days to the UK. When unpacked the banana's will be placed into a room to ripen before being transported to shops and supermarkets.

Retail

To get the banana's into our shops they will follow a transport chain. Normally this will involve transport from the port to a distribution centre, then from the distribution centre to the supermarket or shop. Once on the shelves of the shop the journey is nearly over.

Your Plate

The distance of travel from your local shop/supermarket could be quite short but could add further miles if you live in a more rural area.

In the past the majority of household food consumed was based around staples like potatoes, vegetables and locally sourced meats that had taken a shorter and simpler journey from Field to Fork. This is changing and demands from households for all year product has led food production to be globalised thus increasing food miles and the environmental impact.

By understanding where our food has come from we can more easily assess how we can reduce the environmental impact by reducing the food miles.

Activity 1 – How far has your food travelled?

Start by writing down all of the food that you consume in 1 day. From this list work out the ingredients that went into forming 1 meal. Where did each ingredient come from? How many miles has that product travelled? What is the total milage for your meal?

To do this you may need to look at the labels and package information to find the country or region of origin. This is sometimes shown as "Country of Origin" or "Produced In"

Be aware that some prepared foods may have ingredients that could have come from other countries to be put together more locally.

For example some pasta will have this on the packet –

Produce of

Made using EU & non-EU durum wheat. So finding the exact source of the durum wheat may be hard and need further investigation.

Example –

You live in London and have eaten Sausage, Mash and Gravy

Ingredient	Country/Area of Origin	Miles Travelled
Sausages	Lincoln UK	160
Potatoes	Cork, Republic of Ireland	440
Gravy	Dublin, Republic of Ireland	375
	Total Miles	975

Your Meal Milage

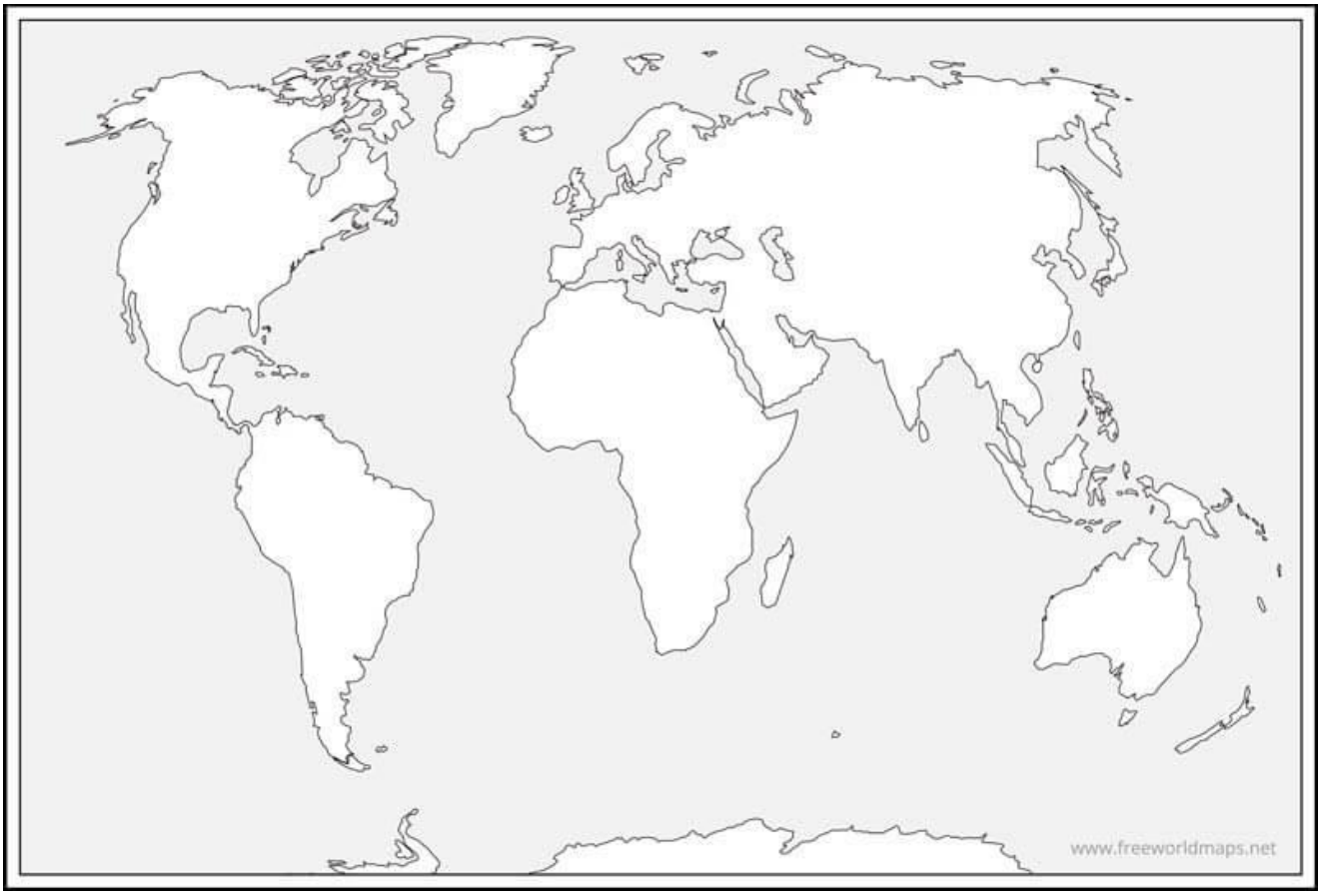
Ingredient	Country/Area of Origin	Miles Travelled

How far has your meal travelled?

What ingredients could you swap to reduce the meal milage?

Activity 2 – Where in the World ?

Over the next week collect some empty food packets or labels for food that your household has bought. Look at the country of origin for these products and mark them on the world map below. After you have marked the map identify the products with the longest journey. Could any of these products be swapped for an alternative to reduce your food miles?



Which product came from furthest away?

Which Products could be swapped to reduce food miles?

Impacts of Transportation

No matter the form of transportation there will always be an environmental impact.

1. **Greenhouse Gas Emissions – Every product and transport method will have a carbon footprint. This refers to the amount of Carbon emissions relative to a process or transport method. Some of these processes can not be altered but other methods can be changed to reduce our carbon impact. Food that is transported using lorries, planes, ships and even trains release greenhouse gases as they use fossil fuels. This release of Carbon Dioxide into the atmosphere will contribute to global warming and climate change.**
2. **Air Pollution and Health – With exhaust gases from all forms of transport present in our atmosphere chemical pollutants can quickly trigger asthma symptoms and have serious affects to our respiratory health. Reducing the need for transportation will improve the health of global citizens as well as reducing our wider environmental impact.**
3. **Accidents/Congestion – With increases in road transportation we will see increased accident rates and heavier levels of traffic, known as congestion. Transportation by road is the most common form of transporting food once it reaches it's country of destination.**

These three key elements form the basis for most of the impacts of transportation, however, the list is not exhaustive. Other impacts include –

1. **Water Pollution**
2. **Fossil Fuel usage**
3. **Noise**
4. **Food Waste**

Can you think of any other impacts transporting food a long distance could have?

How Can We Reduce Food Miles?

The answer may seem simple, buy LOCAL produce, but what does this mean?

1. **Farmers Markets – farmers and producers sell directly to the end consumer, encouraging people to buy fresh locally produced food that hasn't travelled very far.**
2. **Buy British – Always look for British products that are in season when you purchase them. This will encourage people to select products that have not been transported from other parts of the world.**
3. **Green Fingers – The best way to ensure the fewest food miles is to grow your own. Fruit and Vegetables can easily be grown in the UK. In a garden, on a balcony or just a window box, growing your own will be the quickest way to lower food miles. Many schools have their own allotment area where students can grow their own produce, is your school one of these? If not is it something you could suggest?**

Seasonality Checklist

The table below will help us all to know what fruit and vegetables are in season. The table identifies some of the products that are grown/farmed in the UK and when they are in season. Buying seasonally will help to reduce your food miles as these products can be grown and distributed within the UK.

Season	Spring	Summer	Autumn	Winter
	March-May	June-August	September-November	December-February
Vegetables	Asparagus Cauliflower Cucumber Jersey Royal New Potatoes Purple Sprouting Broccoli Radishes Savoy Cabbage Sorrel Spinach Spring Greens Spring Onion Watercress	Aubergine Beetroot Broad Beans Broccoli Carrots Courgettes Cucumber Fennel Fresh Peas Garlic Green Beans Lettuce and Salad Leaves New potatoes Radishes Rocket Runner Beans Salad Onions Sorrel Tomatoes Watercress	Beetroot Carrot Celeriac Fennel Field - Mushrooms Kale Leeks Lettuce Marrow Potatoes Pumpkin Rocket Sorrel Squashes Sweetcorn Tomatoes Watercress	Beetroot Brussels Sprouts Cabbage Cauliflower Celeriac Chicory Fennel Jerusalem - Artichoke Kale Leeks Parsnips Potatoes Red Cabbage Swede Turnips
Fruit		Blueberries Currants (black, white and red) Elderflowers Greengages Loganberries Plums Raspberries Strawberries Tayberries	Apples Blackberries Damsons Elderberries Pears Plums Quince Sloes	Apples Pears

Activity 3 – Cook Local

Your challenge is to find a recipe or design a meal that you could make using only locally produced food. Think about the season that you are in. What foods are in season locally? Where could you get the ingredients? Use the seasonal table to help inform your ideas.

Dish Name -

Ingredient	Place of Origin	Miles from home

What is your meal milage?

Activity 4 – Fruit Aisle Travels

When you next visit the supermarket or shop travel around the fruit aisle or section. Look at different products and assess where they have come from. When you have discovered the place of origin for the fruit think about how changing your habits could reduce your food miles. Could you change just 1 fruit a week to reduce your milage?

Fruit	Country of Origin	Miles

Fruit with lowest travel miles –

Fruit with highest travel miles –