



WebQuest  
Advanced Level –  
Food Miles



TITLE OF THE WEBQUEST:

FOOD MILES

LEVEL OF THE WEBQUEST

ADVANCED LEVEL

## INTRODUCTION

*Have you ever eaten a piece of food and wondered how far it has travelled to reach your plate?*



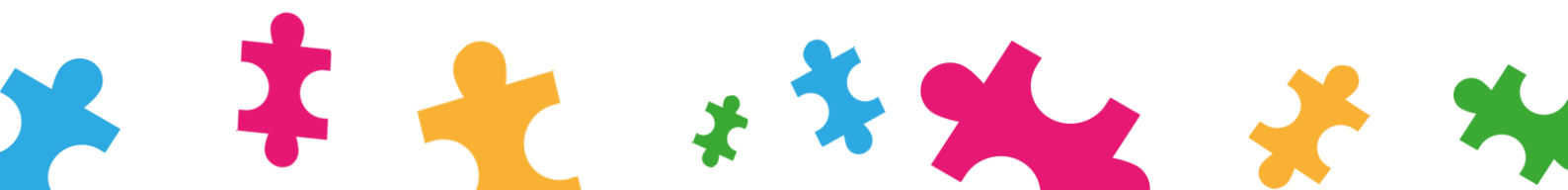
Our food has to make a journey from where it is grown or produced, to our plates. The distance that this food travels is called **food miles**.

Food is transported in boats, planes, cars, and other transportation vehicles to reach shops and supermarket shelves. If your food has to travel a very long way, this causes a heavy carbon footprint because the fossil fuels burned in these transportation vehicles release greenhouse gases into the atmosphere, causing negative environmental effects like climate change and pollution.

**More food miles = More damage to the environment**

**Example:** Buying local apples produces much less food miles than avocados, because avocados have to be imported from South America.

By being more aware of the food we buy and where it comes from, we can help to make better choices for the environment.



## TASKS

You decide to organise activities in your class to raise awareness about food miles, and to encourage people to make better food choices for the environment! There are two activities that you will carry out in groups of 3-4 students.

**Activity 1-** In your small groups, you will find out the food miles produced by the transport of certain fruit and vegetables into Germany

**Activity 2-** Design a poster on the topic “Shop Local” and include advice and tips on how to shop for food sustainably

The WebQuest below will provide you with the information needed to participate in these activities. Are you ready to learn more about the food that ends up on your plate? Follow the steps below!

## PROCESS

### Step 1: Strawberries in Winter?

We live in a world now where we can have any fruit or vegetable at any day of the year, so it is easy to forget that fruit and vegetables are seasonal. Fruit and vegetables grow at certain times of the year, depending on what weather conditions suit their growth. Let's take a look at an example!

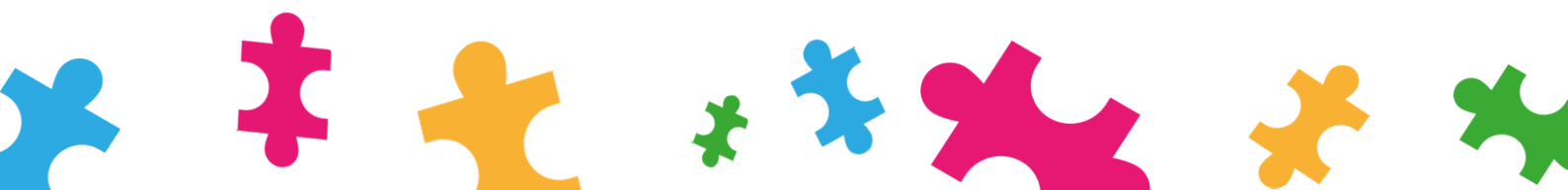
Strawberries grow best in late spring in Germany, so from the beginning of summer you will see beautiful local strawberries that were grown nearby. If you are eating strawberries in the winter, then they were brought in from other countries. That's a lot of food miles!



Shopping for local, seasonal foods is not only better for the environment, but it also helps to support local farmers, and it tastes better!

Click on the links below to learn more about shopping for local, seasonal fruit and vegetables:

- Regionality and seasonality defined - <https://youtu.be/rdh7pdV5K-Q>
- Climate-friendly food choices - <https://youtu.be/VcHImYBywkl>
- Avocados and environmental impact - <https://www.fr.de/ratgeber/gesundheit/warum-keine-avocados-mehr-essen-sollten-11068195.html>
- Are regional food products better? - <https://youtu.be/4kWVPiEZetc>



## Step 2: Global waste

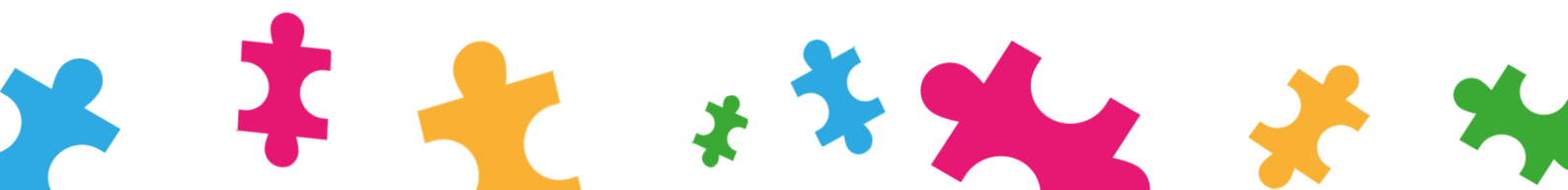
You probably know popular supermarket chains like Edeka, Rewe, Aldi, and Lidl. You can find anything you need there, and you can find them in most towns and cities. Unfortunately, supermarkets do not usually stock a lot of local products. Buying products in local food markets and smaller shops can help to reduce your food miles, and therefore your carbon footprint. Supermarket chains are also responsible for a lot of food waste, because they regularly throw away food as soon as new goods arrive, or if there are slight blemishes visible on the products.

Waste does not just occur in supermarkets, it is global issue, and now we are in a global waste crisis. Did you ever throw away any food at home that you didn't eat in time? It is important that we are not only aware about where our food is coming from, but also that we only buy what we need, so that that minimum amount of food is wasted. Around **one-third** of all the food produced globally is wasted each year! That's a lot, right? There are many reasons why this happens. Supermarket waste contributes a lot to global waste, but also a lot of people in developed countries do not value food enough, so they often buy things in grocery stores that they might not need, and factories create a lot of food waste in manufacturing.

As well as food miles, food waste also impacts the environment negatively and contributes to climate change, so to be able to shop sustainably, it is helpful to learn more about waste, and how you can address it.

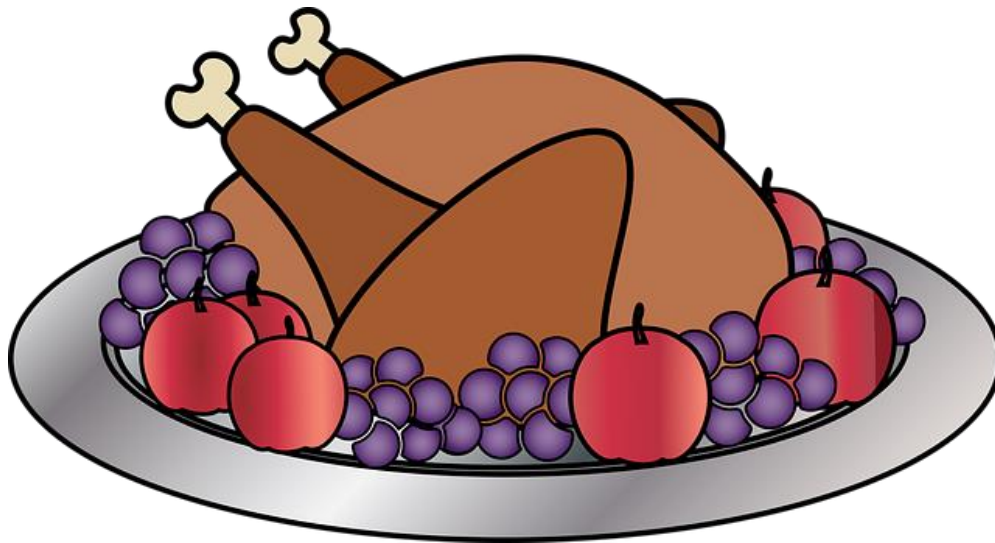


- Food waste in our society - <https://www.kindersache.de/bereiche/wissen/natur-und-mensch/die-essenverschwendung>
- Food waste facts and causes - <https://www.welthungerhilfe.de/lebensmittelverschwendung/>
- Tips for avoiding food waste - <https://youtu.be/VmkWi2WMorM>
- <https://www.duh.de/projekte/lebensmittelverschwendung/>
- Less waste = protection of the environment - <https://www.welthungerhilfe.de/lebensmittelverschwendung/lebensmittelverschwendung-und-klimawandel/>



### Step 3: Meat only as a treat

Shopping locally for seasonal foods, and preventing food waste are excellent ways for us to shop sustainably, but to make sure that we are shopping as sustainably as possible, we must also consider cutting down on our consumption of meat. Raising these animals for their meat requires a lot of land, food for the animals, water, and energy, and because of this, the meat industry is a major driver of climate change. By cutting down on our meat intake, we can help to reduce our carbon footprint, and help to stop the earth's warming. There are a lot of meat alternatives available now, so try out some plant-based options and see if any appeal to you! If meat is a huge part of your diet, you can take it in small steps. Try to start off by having "Meat-free Mondays", and reduce your meat intake little by little.



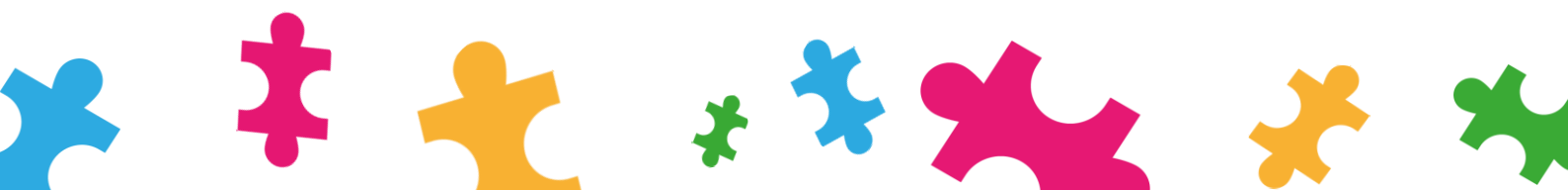
Climate-friendly eating - <https://youtu.be/Yfevc6hRu0E>

How eating meat damages the environment - [https://youtu.be/h767qf9C\\_Xs](https://youtu.be/h767qf9C_Xs)


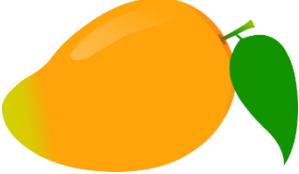
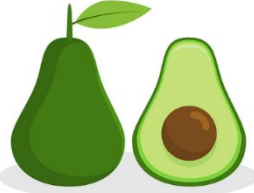

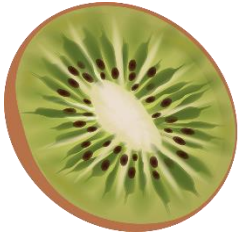
What would happen if we ate less meat? - <https://youtu.be/QRf3oIQP2Vs>

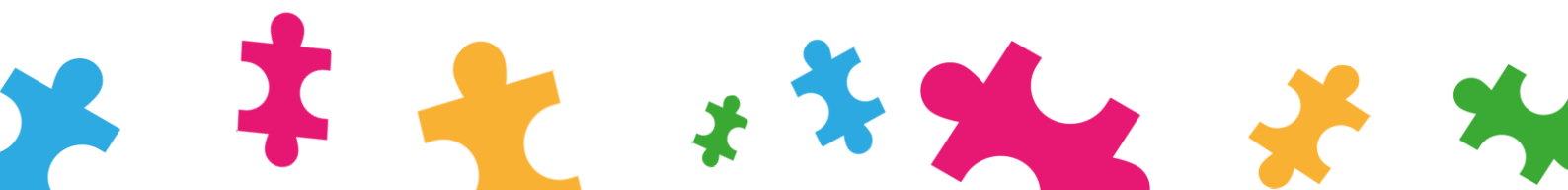
### Step 4: Food Miles Calculations

It's time to conduct an investigation to see how far certain fruit and vegetables have to travel until they arrive in Germany. Gather together in your groups of 3-4 people, and take a look at the list of food below and the countries where these foods are typically exported from, to be imported into Germany. Work together in your groups to fill in the "Food Miles to Germany" section using this website: <https://www.foodmiles.com/>

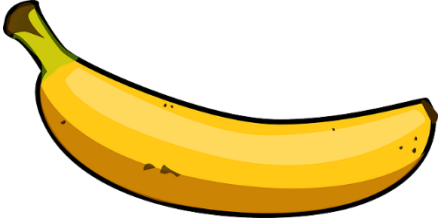
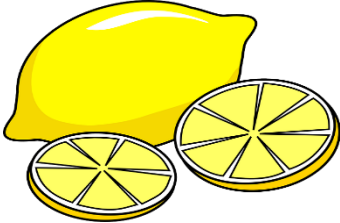
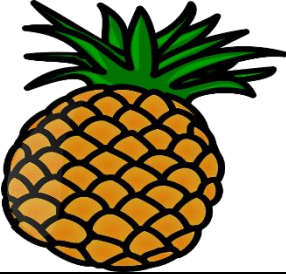





Food Item	Typical exporter	Food Miles produced during travel to Germany
	Italy	
	Brazil	
	Peru	
	Spain	
	New Zealand	





	Ecuador	
	Argentina	
	Costa Rica	
	Thailand	

After filling in the food miles, try to answer these questions in your groups:

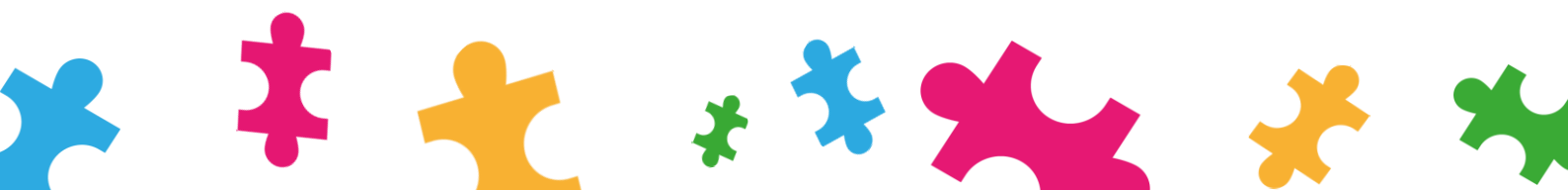
- Which food item produces the highest number of food miles?
- Do you regularly eat these food items?
- Most of these fruits and vegetables cannot be grown in Germany, do you think the importation of such foods should be stopped to help reduce greenhouse gas emissions?

### Step 5: Create a Poster

It's time to create your "Shop Local" poster! Your poster should include information about how people can shop for food more sustainably using the information from previous steps.

Check out the links below that will advise you on how to make an eye-catching poster on Canva:

- How to make a poster on Canva - [https://www.canva.com/de\\_de/erstellen/poster/](https://www.canva.com/de_de/erstellen/poster/)
- Make a poster on Canva, video tutorial - [https://youtu.be/9MZtm8n\\_zGM](https://youtu.be/9MZtm8n_zGM)

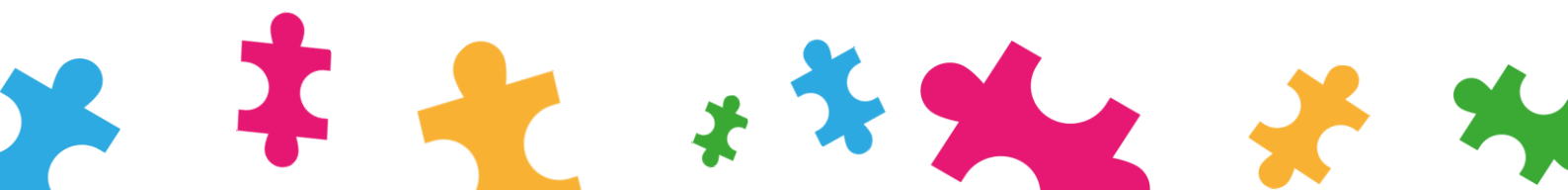


**EVALUATION**

Topic	Knowledge	Skills	Attitudes
<b>Food Miles (Advanced Level)</b>	Factual knowledge of what 'food miles' are.	Define 'food miles'	Willingness to learn as part of a team.
	Factual knowledge about food waste and the cost to the environment.	Give examples of how far food travels to end up on our plate.	Openness to collaborate with peers.
	Factual knowledge of global food supply chains and their environmental impact.	Discuss national and global food waste and its environmental cost.	Awareness of food miles and how far our food travels.
	Theoretical knowledge of how to shop more sustainably for food.	Calculate the food miles of various food items.	Willingness to evaluate where our food is sourced from.
	Theoretical knowledge of different ways to prevent food waste.	Design a poster to raise awareness of sustainable food shopping.	Willingness to raise awareness about food miles with peers.

**Self-reflection questions:**

- What did you learn today on the topic of "Food Miles"?
- Do you ever check the origin country on the packaging of food items?
- How are you planning to reduce your food miles?
- What actions are you going to take to reduce your food waste?
- List 5 actions you are going to take to try and shop more sustainably

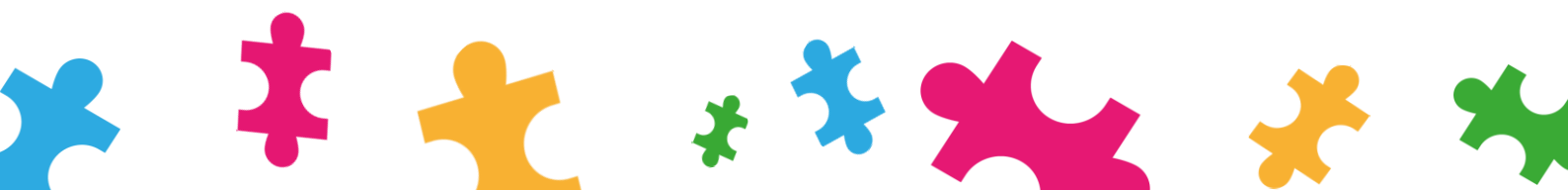




## CONCLUSION

Congratulations! You have completed this WebQuest on the topic “Food Miles”. You have learned what food miles are, the importance of seasonal and local shopping, the global waste issue, and impact of meat industry on the environment.

We are lucky that we can have access to food that we wouldn't have been able to have access to in the past. Air, sea, and road travel have made it easy for us to access different food from all around the world. Even though there are benefits to importation and exportation of foods around the world, the priority now is the protection of our climate, therefore, small changes in our eating and buying habits are necessary to help save the earth.





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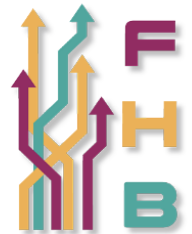
**GRETA**



**Challenge-based Learning in Primary Schools for Climate Change Awareness**



Istituto Comprensivo "Don Milani" di Lanciano



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