

SUSTAINABLE FOOD 4: FOOD WASTE

INTRODUCTION

The food we eat has many environmental impacts. Making the way we produce and consume our food sustainable is vital in order to feed an ever-growing world population, whilst protecting our environment. As a set, these resources cover the following important themes concerning food sustainability:

1. Farming and the environment
2. Food miles
3. Food packaging and recycling
4. **Food waste**
5. Fairtrade

FOOD WASTE: KEY LEARNING OBJECTIVES

- How much food do we waste in the UK?
- Why do we waste so much food?
- What are the impacts of food waste?
- What is being done in the UK to reduce food waste?
- What can we all do to reduce food waste?

NOTE TO TEACHERS

These notes are intended to provide key information and facts to support teachers delivering the topic. They are designed to be used with the accompanying PowerPoint presentation, which has plenty of effective visuals to aid students' learning; all slides are referred to in the notes. Please feel free to modify the presentation by adding your own slides or deleting those you don't need.

You can find a host of other environmental teaching resources on our website:
ypte.org.uk/audiences/teachers

FOOD WASTE: KEY WORDS

Avoidable waste - Food that was edible at some point before being put in a bin or food waste caddy.

Unavoidable food waste - Food that is inedible such as vegetable peelings, meat carcasses and teabags.

Post-farm gate - After food leaves the farm.

Personal Carbon footprint - The total amount of carbon we produce from all our activities and the choices we make in our daily lives.

Global warming - A gradual increase in the overall temperature of the earth's atmosphere generally attributed to the greenhouse effect.

Greenhouse effect - A warming of the Earth's surface and the air above it. It is caused by gases in the air that trap energy from the sun. These heat-trapping gases are called greenhouse gases.

Methane - Methane is a powerful greenhouse gas and has a significant impact on global climate change. It is emitted through a number of natural processes in the environment, as well as from human activities.

Landfill - An area where where waste is buried underground.

Recycle - To make something new from something that has been used before.

Biodegradable - Possible to break down into very small harmless parts by the action of living things (such as bacteria).

HOW MUCH FOOD DO WE WASTE?

Slide 3: Food waste is a big and growing problem - roughly one third of the food produced in the world for human consumption every year (approximately 1.3 billion tonnes) gets lost or wasted.

Slide 4: WRAP estimated annual food waste arising within UK households, hospitality & food service (HaFS), food manufacture, retail and wholesale sectors in 2018 at around 9.5 million tonnes, 70% of which was intended to be consumed by people.

WHY DO WE WASTE SO MUCH FOOD?

Slides 5 & 6: Food waste happens throughout the food supply chain. These notes focus on waste that takes place after food has left the farm where it was grown or reared (**post-farm gate**).

Supermarket Waste

Slides 7 & 8: Supermarkets waste food in various ways:

- Unnecessarily strict sell-by dates mean that food is disposed of when it could still be eaten
- Promotional offers e.g. buy one get one free encourage us to buy more food than we need
- Consumer demand for cosmetically perfect food means that irregularly shaped produce can be thrown away
- Poor storage can result in produce having to be disposed of.

Household Waste

Slides 9-13: But in the UK, supermarkets are responsible for only a small percentage of the food wasted. Households are by far the biggest culprit. Everyone of us generates food waste each day and the volume is growing each year. Most of the food we waste is because we either cook, prepare and serve too much or because we don't use food on time.

WHAT ARE THE IMPACTS OF FOOD WASTE?

Environmental

Slides 14-15: The amount of food we throw away is a huge waste of resources - of all the energy, water and packaging used in food production, transportation and storage. This all goes to waste when we throw away perfectly good food. If food

waste is thrown into the bin, it will go straight to **landfill**. Here it takes up valuable space and as it rots/decomposes it releases gases and liquids that can harm the environment. In particular, **methane** which is a **greenhouse gas**.

Avoidable food waste generates millions of tonnes of greenhouse gases. Turning less food into rubbish can make a real difference to the world around us

You will find more information about the greenhouse effect, global warming and climate change on our website: ypte.org.uk/videos/the-greenhouse-effect

Cost to Households

Slide 16: Reducing the amount of food we throw away does not only help the environment, it saves us money. The overall cost of food waste each year to households in the UK is £19 billion.

Food Poverty

Slides 17-18: There is more than enough food produced in the world to feed everyone. But close to a billion people go to bed hungry every night.

Whilst 98% of the world's hungry live in developing countries, there are many people in the UK who do not get enough to eat. More than 8 million people in Britain live in households that struggle to put enough food on the table, with over half regularly going a whole day without eating. Yet almost 7 million tonnes of food ends up in landfills each year in the UK

WHAT IS BEING DONE IN THE UK TO REDUCE FOOD WASTE?

There are currently no mandatory food waste reduction targets in the UK, but there are many **voluntary initiatives** that have been set up:

Love Food Hate Waste Campaign

Slide 19: This is a consumer campaign that encourages people to rethink how they can shop, plan meals better and use up leftovers whenever possible. Find out more about the campaign here: www.lovefoodhatewaste.com

Food Redistribution Schemes

Slide 20: There are a number of food redistribution organisations and food banks working to save and redistribute surplus food to those who need it.

In Leeds there is now a 'food waste' supermarket that works with stores to put food to good use. It means that those who need food can take food that would otherwise have been thrown in the bin. It may be 'out of date' but is perfectly safe to eat.

Corporate Schemes

Slide 21: There are numerous corporate initiatives run by individual companies e.g. supermarkets such as Tesco, Asda and Morrisons have launched 'wonky vegetable' ranges in order to reduce food waste.

WHAT CAN WE ALL DO TO REDUCE FOOD WASTE?

Waste Hierarchy

Slide 22: Try to follow the waste hierarchy. The best thing we can all do is prevent food waste by reducing and reusing, but if food has to be thrown away think about where it goes and always try to recycle it:

Reduce: Only produce / buy the food we'll eat

Reuse: Over 50% of the food we throw away could be eaten.

Recycle: Compost food waste

Recovery: Food waste sent to the incinerator with energy being recovered

Disposal: Waste sent to landfill or incinerated without energy recovery

Ideas For Reducing Food Waste

Slide 23: Think about portion size, keep an eye on best before and use by dates and put food in the freezer if you won't be able to eat it in time.

Ideas for Reusing Food Waste

Slide 24: Get creative with leftovers. For example, the remains of a roast joint you eat for Sunday lunch can make a delicious curry or risotto for later in the week and perhaps some sandwiches too. There are many websites full of ideas and recipes for using up leftover food:

<http://www.bbcgoodfood.com/recipes/collection/leftovers>

<https://www.lovefoodhatewaste.com/recipes>

<http://www.jamieoliver.com/recipes/category/course/leftovers/>

Food Composting

Slide 25: Composting is an ancient technology that was introduced by the Romans about 2000 years ago as a way of improving soil fertility. Our organic waste is a valuable commodity. Home composting is a great way to stop uncooked kitchen waste ending up in landfill and your garden will benefit at the same time.

Compost can be made by leaving materials in a heap. This should ideally be at least 1 metre square and 1 metre high. It should be enclosed with brick or timber and covered to keep rain out.

Slide 26: For smaller gardens, a compost bin is a better option. Bins are open ended to allow earthworms to enter the material and speed up the process. There are many websites available which have advice and guidance on how to compost food waste successfully:

<http://www.edenproject.com/learn/for-everyone/how-to-make-a-compost-heap-10-to-p-tips>

<https://www.rhs.org.uk/Advice/Profile?pid=444>

Slide 27: Some local councils will provide free composting bins for schools, so that food waste from fruit snacks and school lunches can be composted.

Food Waste Recycling Service

Slide 28: Many areas now have a local food waste recycling collection service which can recycle all leftover food. Garden waste is composted and turned into soil improver, which you may be able to buy at your local Reuse and Recycling Centre!

SUGGESTED ACTIVITIES FOR FOOD WASTE

Personal Food Waste Audit

Ask students to list everything they eat on an average day. Approximately how much of this ends up as waste? Challenge them to think of how they can reduce the amount of food waste they produce or alternative ways of disposing of it e.g. for breakfast, only pour the amount of cereal they will eat and put their apple core in a composting bin. Perhaps they could have a go at implementing these strategies for a week and then assess how successful they have been. The following table structure might be used:

Food eaten on average day	How much ends up as waste	How waste can be reduced/alternative disposal methods	How successful at implementing strategies
Bowl of cereal	A few spoonfuls	Only pour amount needed	

Design Poster/Leaflet for School

Design and produce a poster to display on the school notice board or a leaflet to distribute to students. It should explain the importance of reducing food waste and what each person can do to help.

Kitchen Waste Information

Design and produce an information card for display in your kitchen at home. It should remind everyone about the importance of reducing food waste, reusing leftovers and of the best way of disposing of unavoidable waste.

Create a Meal From Leftovers

Using leftovers that would otherwise have been wasted, create a tasty and nutritious meal. How many courses will the meal have and how imaginative can students be?

Food Composting Project

Find out how to make your own compost and if possible set up a composting bin/heap at home or school.

Wise Up To Waste Game

Learn about the five main food waste-reducing habits that people can take on to reduce the amount of food they throw away:

<http://www.wiseuptowaste.org.uk/waste-less/food-waste/food-waste-game>