Home Economics Food Waste Project 2018

Special thanks to Fingal County Council, Dublin City Council, Kildare County Council and Wicklow County Council for sponsoring this project.
Part 1: Where do we waste food?

One third of all edible food produced worldwide is wasted.¹

Let’s identify where food is wasted and what we can do to prevent it.

Food gets lost or wasted in food production and consumption systems.

We waste food on the farm, in supermarkets, at home, in restaurants and at school.

Let’s find out why!
Food Waste on the Farm.

High volumes of crops get left behind on the farm due to overproduction, low staff and imperfect produce.

Crops left behind on the farm will be ploughed back into the ground. This wasted food is perfectly edible.

To tackle this problem, many people have started gleaning!

Gleaning is the collecting of crops that would otherwise be wasted on farms. Usually this food is gathered by volunteers and distributed to a local community group or charity.

Watch this 2min clip about gleaning - https://www.youtube.com/watch?v=G1Jn2xUezDY
Falling Fruit Ireland is an organisation that collects fruit and other food from urban gardens and orchards. In 2017 they began gleaning to collect higher volumes of crops from farms across Ireland. The food is collected by volunteers and donated to local charities. This not only helps feed people in need, it also prevents food waste and helps the environment.

Falling Fruit volunteers with apples collected from UCD’s apple orchard Oct 2017.
**Supermarket Food Waste.**

**Supermarkets** prefer perfect looking fruit and veg. Food that does not meet high cosmetic standards is rejected by supermarkets.

This food is wasted simply because it looks ugly or strange but ugly fruit and veg is just as nutritious and delicious as perfect looking fruit and veg.

Supermarkets oversupply in order to have fresh food available at all times, even close to closing time. At the end of the day, supermarkets are left with high volumes of food and the surplus food ends up as waste.

The food lost at supermarkets mostly consists of baked goods, meat, dairy and prepared meals, fresh fruit and veg, particularly salads.

To tackle this problem, organisations have started collecting food waste to give to people in need.

**FoodCloud** is an organisation that works to prevent food waste by using an app that connects supermarkets with too much food with charities that help people with too little food.

**Watch this 2min clip about FoodCloud:**
https://www.youtube.com/watch?v=QAh1j6OTA9s&t=2s
Creative solutions!

Many innovative businesses have come up with creative solutions to tackle food waste from farms and supermarkets. Here are some examples:

**Toast Ale** collects waste bread and uses it to brew a range of beers. 100% of profits from Toast Ale are donated to charities fighting food waste.

**Misfit Juicery** transform rejected fruit and veg into delicious fresh juices.

**Spare Fruit** turn surplus apples into apple juice and apple crisps.
Food Waste at Home.

At home we waste food because of poor meal planning, buying too much food, storing food incorrectly and misunderstanding best before and use by dates on food.

Ask Students:
What is the difference between best before and use by?

*Best before* indicates the last date by which a product’s flavour and appearance is at its best. In this case, use your smart senses (smell and taste) to judge if the food is still good.

*Use by* indicates the last date by which a product is safe to eat.

Ask Students:
What temperature should your refrigerator be at?

Your fridge should be at 4 Degree Celsius

Avoid food waste by planning your meals!
Avoid Food Waste at Home - Top Tips

- **Make a shopping list** – Plan your meals and make a shopping list
- **Where possible buy funny looking produce** – Many fruit and veg are not sold because their size, shape or colour is not perfect, but they are perfect to eat. These products taste just as good!
- **Avoid buying two for one** offers unless you're sure you can use all of it.
- **Live by first in, first out** – When unpacking your shopping move older items to the front of fridge or cupboard so they get used first.
- **Store food properly** – Check that your fridge temperature is correct and read the storage instructions on products. A fridge that is too hot or cold can cause food to rot quicker.

Always use airtight containers or wrap food to keep it fresh for longer.

Top - yoghurt, cheese, sauces, cooked meats, leftovers.
Middle - raw meat, fish poultry.
Bottom - fruit and veg.
Door - eggs, condiments, jams and juice.

Bread should not be stored in the fridge as it will spoil quicker.
Potatoes, onions and garlic are best stored out of the fridge.

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3 [http://stopfoodwaste.ie/resources/storage-cooking/](http://stopfoodwaste.ie/resources/storage-cooking/)
• **Use your own judgement when it comes to perishables** – ‘Use by’ dates should be followed, ‘best before’ dates are only a guide. Use your smart senses - smell and taste. Be careful of perishable foods like dairy and meat.

• **When cooking, use it all** – Leave skins on cucumbers and potatoes, use broccoli stems along with florets – you will not only rescue food but many skins and stems provide additional nutrients.

• **Love your leftovers** – Use leftovers and foods that will soon perish to make new, interesting recipes, bring leftovers to school or work for lunch the next day, freeze meals after cooking if they won’t be eaten straight away.

• **Preserve food** by making chutney, jam, pickle and stock.

• **Freeze food** if you made too much of something or don’t have time to use it before it goes off.

• **Portion control** - eat family style to avoid giving people more food than they can eat. Family style is where there is one big serving at the centre of the table so each person can take as much as they feel they can eat.

• **Monitor what you do** track your waste for a week or two and then redesign your shopping list and meal plans to reduce this waste of food and money the next week.

• **Compost!** You can compost plant based foods vegetables and fruit, tea bags, coffee grounds, eggshells, and paper.

• **Use your brown / food waste collection bin** for all food waste including meat, fish and bones.
Food Waste when Eating Out.

Restaurants often throw away edible food because they order too much from suppliers to avoid running out. Having too many options on a menu may also lead to food waste.

Sometimes customers order too much or get more food than they can eat.

**Ask Students:**
What can you do to help avoid food waste when eating out?

Ask for a take away container to take food home.
Don’t order too much food.
If you are not very hungry ask the server to give you a smaller portion.
Food Waste at School.

Sometimes our school lunch ends up in the bin. Perhaps we brought too much food to school or we were given too much from the canteen or school lunch programme.

Sometimes we’re just not that hungry!

Avoid Food Waste at School - Top Tips

● Pack your lunch in a reusable container instead of plastic or foil wrap so it can be taken home if not eaten.

● Bring home uneaten food to snack on later.

● Compost or dispose of food waste like banana skins, apple core and orange peels in the food waste bin. If you don’t have a separate food waste bin, bring it home!

● In cookery class, only bring what you need for your recipe. If you have any ingredients leftover, bring it home!

● Set up a ‘share table’ where students can swap unwanted school meal items instead of throwing food items in the bin. Excess food on the share table can be donated to a local charity, food bank or for after school activities. Share table’s work well in school cafeterias or deis school lunch programmes.

Ask Students:

What can you do to avoid wasting food at school?

How can you prevent food waste in home economics class?
Part 2: Why is it bad to waste food?

In Ireland, we waste almost **1 million tonnes** of food in Ireland every year!\(^4\)

1 in 8 people in Ireland experience food poverty.

Food poverty is the inability to access a nutritionally adequate diet, despite so much healthy and nutritious food going to waste.

Thankfully, organisations like FoodCloud and Falling Fruit are working hard to collect surplus food and distribute it to charities.

In 2017 FoodCloud saved 14,000,000 meals working with 7,900 charities in Ireland and the UK!\(^5\)

\(^5\) https://food.cloud/
Food Waste is a Waste of Money.

1 kilo of food waste in your bin amounts to approximately €3.

€3 includes the production, packaging, purchasing, storing, preparing and disposal of food.

One household wastes €700 - €1,000 every year.

An average restaurant wastes €24,000 every year.

An average hotel wastes €150,000 every year.\(^6\)

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Ask Students:
Would you put your money in the bin?
So why do we put good food in the bin?

Food Waste and Natural Resources.

When we throw away food we also waste the resources put in to grow it.

Food requires vast amount of **land** to grow.

Crops and animals also require high volumes of **water** to grow food for our consumption.

**Fuel** and **energy** is used in the farming, transporting, manufacturing and refrigeration of food.

**Labour** is required from the beginning to the very end of the food chain, from seed to disposal. Think of all the people who work so hard in producing our food!

**Ask Students:**
Can you name three types of jobs involved in producing food?
Can you name three types of transport or machinery used in producing food?
Food’s Carbon Footprint or ‘Foodprint’.

Our Carbon Footprint is the impact we leave on the environment through our behaviour and activity. When we drive to school, turn on the TV, cook a meal or heat our home we are using energy. That energy creates greenhouse gas emissions which harm the atmosphere. We can reduce our carbon footprint by being more energy efficient.

Food’s carbon footprint, or foodprint, is the greenhouse gas emissions produced by growing, rearing, farming, processing, transporting, storing, cooking and disposing of the food we eat.7

Rearing animals requires more resources, energy and labour than growing vegetables. Reducing our meat consumption is an easy way to lower our foodprint.

Watch this video to understand food’s carbon footprint in more detail
‘Sandwich Video’ - 3mins https://www.youtube.com/watch?v=ioCzxxqgLf0

Ask Students:
Will you think twice next time you throw away your food?

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7 http://www.greeneatz.com/foods-carbon-footprint.html
Where does our waste go?

**General Waste Bin** - this waste goes to landfill or incineration. Non recyclable materials should be disposed of in this bin.

**Recycling Bin** - recyclable materials such as plastic, paper and metals (aluminium and steel) are collected so the materials can be repurposed to make new products like cardboard boxes or plastic car parts.

**Food Waste Bin** - this waste is used to make compost which is a natural fertiliser for soil which helps grow fruit and veg.

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**5 R’s for Food Waste**

- **REFUSE**
- Say no - only take what you can eat
- **REDUCE**
- Don’t impulse buy & measure waste
- **REUSE**
- Use your leftovers
- **RECYCLE**
- Make stock, pickle & preserve
- **ROT**
- Compost your food waste

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Where possible, we should dispose of food in a designated food waste bin.
Food Waste and Climate Change.

When food waste goes to landfill from the general waste bin, food rots and releases **methane**.

Methane is a harmful greenhouse gas 20 times more harmful than CO2. Both methane and CO2 contribute to climate change.

Because of this, food waste produces more greenhouse gas emissions than 37 million cars.  

When we reduce our own food waste and use a compost bin we can reduce the amount of food going to landfill and therefore, we can reduce the amount of greenhouse gases harming our atmosphere.

Did you know - If food waste was a country it would be the third highest greenhouse gas emitter after the USA and China!

Local food has a lower carbon footprint than imported food.

**Ask Students:**
What does local and in season food mean?
What fruit and veg are in season right now?

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8 https://www.nrdc.org/resources/wasted-how-america-losing-40-percent-its-food-farm-fork-landfill
Part 3: Food Waste Solutions

With great challenges come great opportunities, for change!

We can start by reducing our own food waste and carbon footprint.

Such a widespread problem requires everyone involved to be part of the solution.

We can start here in the classroom and help create awareness of the problem and the solutions around the school.
We can also bring home helpful tips to encourage our families to reduce their food waste too.

**Ask Students:**
Can you list some ways to prevent food waste and lower your footprint at school and at home?

**Ask Students:**
What ways can we avoid food waste in the school kitchen?

**Homework**

Make a poster listing the ways we can avoid food waste at home and post it on your fridge.