



# Fab Food Resources

**Fab Food helps children, schools and families waste less food and save more money.**

[sainsburys.co.uk/waste](https://www.sainsburys.co.uk/waste)

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# About Fab Food

**Fab Food helps children, schools and families waste less food and save more money.**

With support from Sainsbury's, the Environmental Education Project Team at South Derbyshire District Council developed, piloted and trialled the Fab Food materials in local primary schools.

All Fab Food resources have therefore been road-tested. Please feel free to adapt them to meet the abilities and needs of your students.

Good luck with running your own Fab Food programme. We hope that you and your school enjoy it, have fun and learn how to 'Waste less, Save more.'

# Fab Food Introduction

This introduction helps primary teachers find their way about the resource and see what it has to offer. There are four simple steps to the Fab Food process. Each step is supported by downloadable resources.



## Step 1 : Food Waste Audit – let's see what we waste

This is carried out in all parts of the school: classrooms, kitchen, dining room, staffroom, playground. Children see how much food is being wasted, what types of food are most often wasted and start to work out why.



## Step 2 : Action Plan – let's see what we can do about it

This is created by everyone involved. It uses the results of the Food Waste Audit. Pupils and teachers plan ways to reduce the amount of waste food. This includes deciding which activities are going to work best during Food Awareness Week.



## Step 3 : Food Awareness Week – a week of Fab Food action

This is a week of activities arising from the Action Plan. The activities can be carried out in class, across the school, through an assembly, or at home. Together, they help make wasting less food fun and memorable.



## Step 4 : Audit – let's see what we've saved

Step 1 is repeated to see if the school is now wasting less food. The children analyse, reflect and report back on what they have learned and what else needs to be done.

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Fab Food is very flexible. You might want to plan in activities across the whole school, for a single class or year group, or for an eco club or committee. Pilot schools found it useful to create an initial team of 'Waste Warriors' – seven or eight students who lead activities.

It is best to allow a Half Term for Fab Food, but it can be done over a shorter period.

# Curriculum

Fab Food offers a real and meaningful opportunity for children to:

Develop and apply core knowledge and skills.

Take responsibility for the environment.

Work towards a common goal with families and the wider school community.

Some key curriculum links:

**Mathematics:**

addition and subtraction; measurement; statistics.

**English:**

spoken language (eg discussions, debate, presentations); writing (eg. about real events, for an audience).

**Science:**

working scientifically (eg gathering and recording data, recording findings, making predictions and suggesting improvements, reporting and explaining results); living things (eg basic needs of animals and plants, including nutrition; changing environments).

**Design and Technology:**

especially cooking and nutrition

Some further curriculum links are provided in the teacher's introduction for each step. Most activities are suitable for ages 7 to 11 (Key Stage 2 in England), but some may need modifying for younger or less able children.

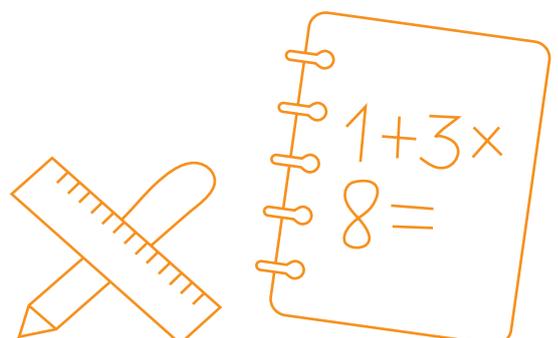
There is a strong element of Citizenship and PSHE throughout. Pilot schools made good links to schemes such as Eco Schools, Active Kids and healthy eating programmes.

Please follow your school's health and safety and safeguarding procedures when carrying out activities, which include lifting, handling food and food waste, and the use of equipment such as knives and peelers.

**To find out more:**

Waste less, Save more: [sainsburys.co.uk/waste](https://www.sainsburys.co.uk/waste)

Love food, Hate waste: [lovefoodhatewaste.com](https://www.lovefoodhatewaste.com)



# What is Fab Food all about?

The project is linked to Sainsbury's 'Waste less, Save more' programme, which offers loads of information to support Fab Food activities.

See: [sainsburys.co.uk/waste](https://sainsburys.co.uk/waste)  
See also: [lovefoodhatewaste.com](https://lovefoodhatewaste.com)

The following aims are based on the pilot project in Derbyshire. We think they work for any school going on a Fab Food journey.

- Children **waste less food**
- Children **value food** more
- Food waste is measured and children work with adults across the school to find ways to reduce it
- Children encourage their **families to waste less food** and save money
- School lunches become a sociable and important part of the day
- School **kitchen waste is reduced**
- **Composting is increased** where possible
- The school **raises awareness of food waste** in the local community



# Acknowledgements

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# Step 1 : Food Waste Audit

## Let's see what we waste

This is carried out in all parts of the school: classrooms, kitchen, dining room, staffroom, playground. Children see how much food is being wasted, what types of food are most often wasted and start to work out why.

It is a necessary first step in starting to think about how waste can be reduced.

A second audit is carried out at the end of the project. This allows children to compare the amount of food wasted before and after. All being well, the second audit will show a measurable reduction.

We suggest that the first audit is very low key, so that a 'realistic' idea of the amount of food waste is measured.

The following notes are for teachers, but we also provide a **Fab Food Pupils' Checklist** for children involved in the audit.

# Preparation

The aim of the audit is to collect and weigh every piece of food that is wasted in school. An audit usually takes about five days.

We recommend that the school sets up a food waste caddy in each participating classroom and the staffroom, plus larger food waste bins alongside other bins in the playground, dining hall etc. This is so that food waste can be separated from paper, plastic etc. (You could use plastic storage boxes with lids instead).

Children design stickers to show which bin is for what. If each container has its own name or number, this will help to both manage containers and collect data. These containers should become a part of the school's everyday waste arrangements following the project.



## You will also need:

- a good supply of biodegradable liners for the waste caddies
- access to a compost bin
- a five litre jug (if measuring liquids)
- weighing scales (to measure up to 10kg)
- calculators, notepads and pencils



# Preparation

A group of children do a walking tour of the school to **work out how many extra bins will be required, how many caddies and bin liners**. There should be two bins at every possible point. Children create or annotate a simple plan of the school showing where containers are.

The **children are shown how to separate their waste and how to use the bins**. It can be difficult to measure food waste from packed lunches, or waste liquid like milk. If these need to be excluded from the audit, this should be noted as part of the children's data collection and reporting.

Investigate what the main times are when food might get thrown away (eg during afternoon break). It will be best to carry out the waste collection after these times.

You will need written tables for recording the results. Older children can design these in Word or as Excel Spreadsheets. You could have a single table for the whole school, or different classes or groups can manage their own tables and then combine the data afterwards, so as to provide grand totals for the whole school.

We offer an example as part of the **Pupils' Checklist**.

Don't forget that you and/or a deputation of children will need to meet the school's cook and catering manager, so that they are aware of what is going on. Their knowledge of how food waste is managed will be invaluable. We provide **a catering survey** that can be used by pupils as part of this meeting.



# Thinking about collecting and weighing

You will need to **work out who is doing what**. In pilot schools, a team of 'Waste Warriors' each took responsibility for a selection of rooms, collected the bin liners from each room, set up the bins with new liners, recorded the weight of each bag and then placed the bags into the compost bin.

However, you may want to get more children involved in the weighing and documentation process. Even if they are not organising the bags, **all children can help with measuring and recording the results**. As they develop their auditing skills, the children are engaging in teamwork and scientific enquiry.

Consider risks and hazards. For example, is there a method of collecting and weighing the food without needing to touch it? Can children design a way to do this (eg. using luggage scales)?



# The Audit Process

On the day before the audit starts, work with children to ensure that everything is in place and positioned correctly, ready to go.

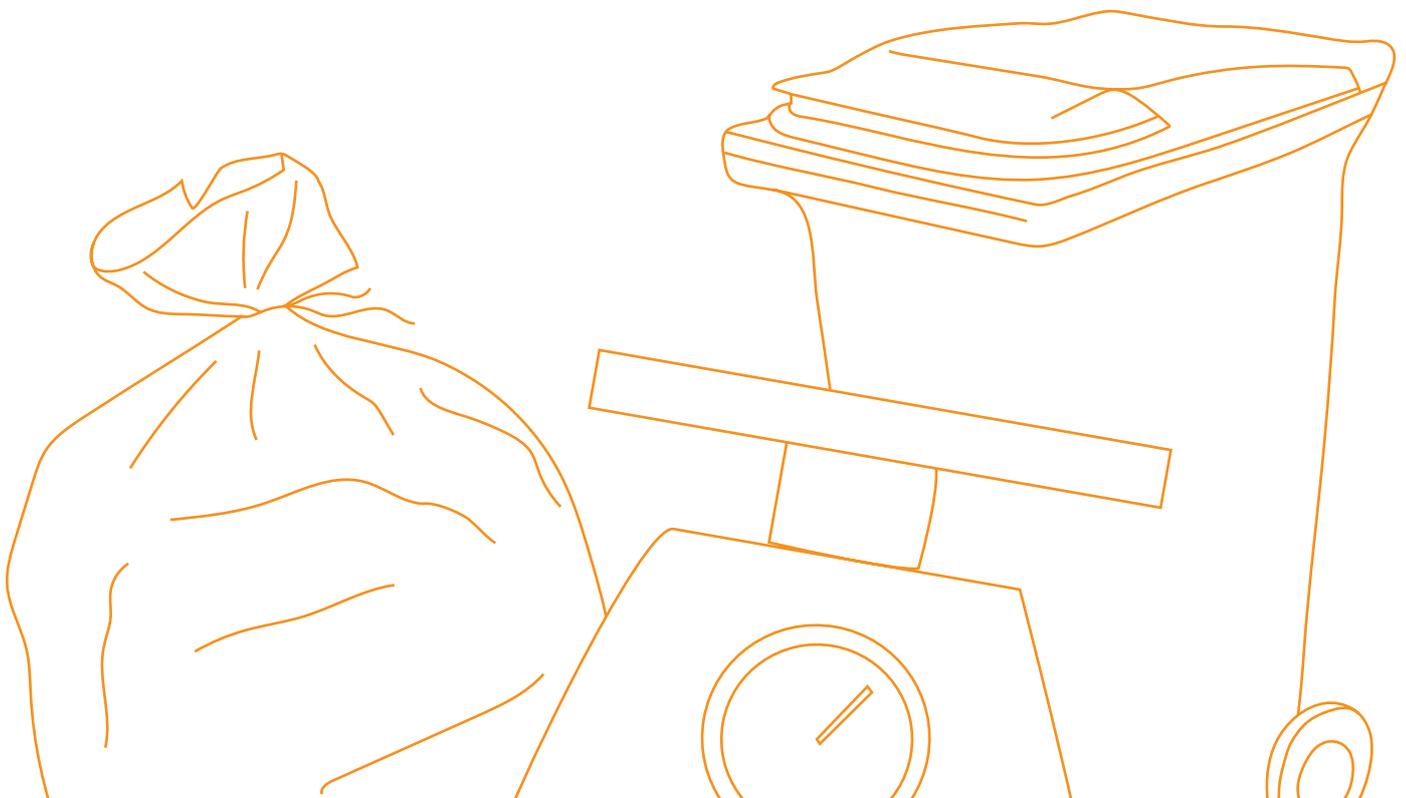
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Children practice the task :

- set the scales at the correct units
- weigh the bin and the liner
- take the reading with the bin off the floor, record the result
- take the liner to the compost bin
- set up a new liner
- take results to the people with the spreadsheet / table
- subtract the weight of the bin for each of their results and then enter their final figures into the spreadsheet / table



Once they have rehearsed this process, they are ready to start the audit. To get a really good sense of how the school wastes its food, you will need **a daily food waste audit for at least five days**. As they get into their stride, children should be able to carry out tasks with increasing independence.



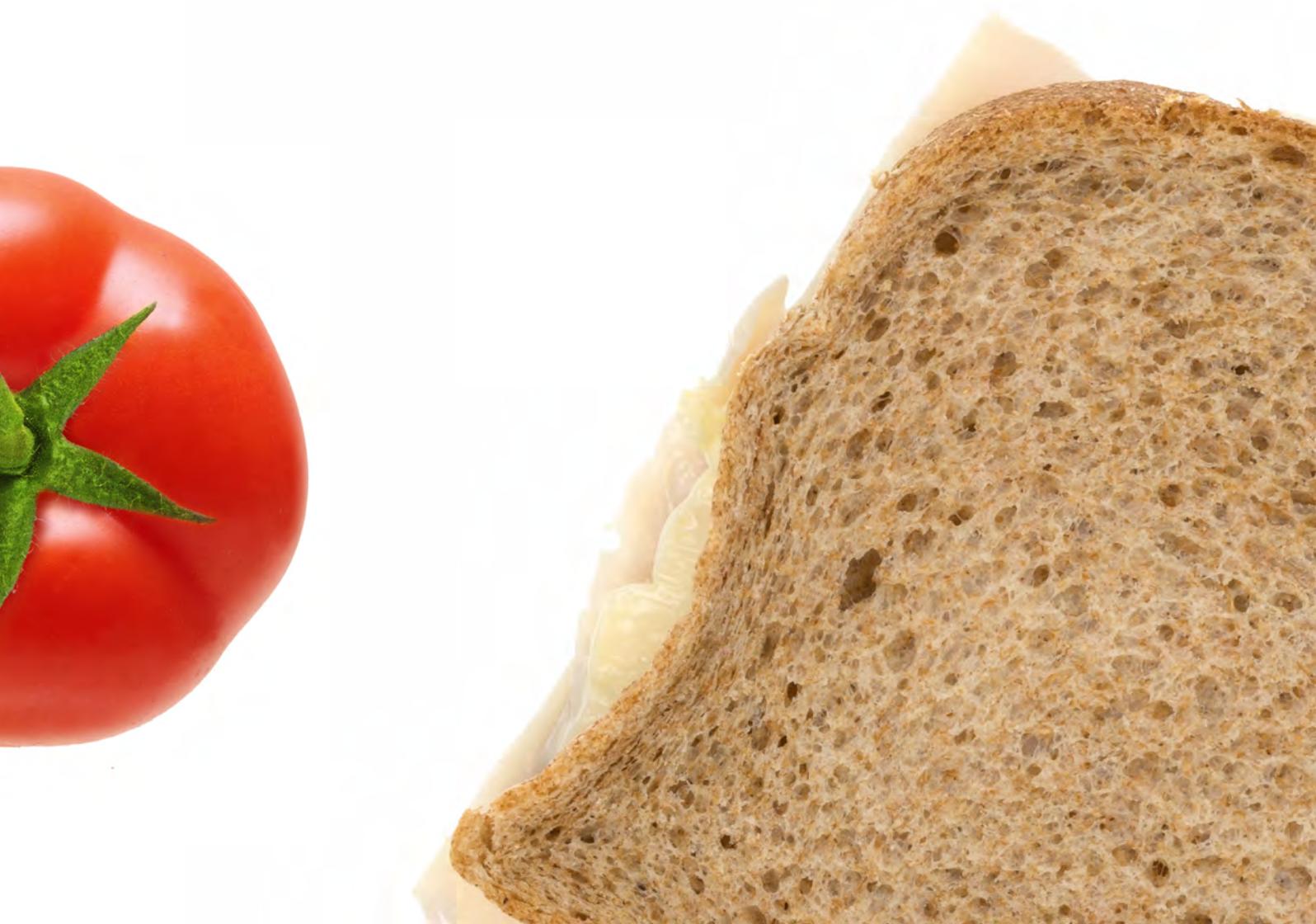
# Completing The Audit

Figures are totalled at the end of the audit. If you have not used a single table for the whole school, this may involve a group of children combining data from other classes and year groups.

**A group of children prepares a report for the school:**

- how much food is being wasted?
- what types of food are most often wasted?
- what initial ideas do they have about why this might be so?
- what seem to be the problem areas?

They present this report to teaching staff, peers and other stakeholders (eg Eco Council, SLT, Catering Manager, parents). Following feedback, they can start developing **Step 2, the Action Plan**.



# Surveys

During the audit week there may be an opportunity for children to survey their peers and catering staff. We offer two proformas for them to use. They have been designed for KS2 children, but could be simplified for KS1.

## School Meals Catering Survey

School Meals  
Survey Conducted By : ..... Date : .. / .. / ..

We want to help the school to reduce food waste and save money on kitchen costs.  
Please help us get a better understanding of how the catering service operates.

1. What are the top five most wasted foods at the school?  
.....  
.....  
.....
2. What do you do with leftover food, which has been cooked or bought, but not served?  
.....  
.....
3. How is fruit ordered and how is waste fruit disposed of?  
.....  
.....
4. How is milk ordered and how is waste milk disposed of?  
.....  
.....
5. What are the school's main problems with food waste?  
.....  
.....  
.....

## School Meals Pupil Survey

School Meals  
Survey Conducted By : ..... Date : .. / .. / ..

1. What are your favourite meals?  
.....  
.....
2. What meals don't you like?  
.....  
.....
3. Are your portion sizes...? (Please circle.)  
Just Right                      Too Big                      Too Small
4. If portions are too big, what sort of food do you leave?  
.....  
.....
5. What is good about your school meals?  
.....  
.....

# Curriculum

## Mathematics:

- addition and subtraction – as part of data collection and reporting (KS1 and 2)
- measurement – through weighing the bags, and practically understanding the processes involved (eg learning that it is good practice to weigh things twice to be sure of an accurate result) (KS1 and 2)
- number – (KS1 and 2) (eg through the practical application of numbers, children begin to understand place value and decimal points, such as 0.4kg being the same as 400g); fractions and percentages, within the recording and reporting process (KS2)
- statistics – as part of the recording and reporting process, or drawing on survey findings (KS2, or through simple tally charts at KS1).

## English:

- spoken language (eg presenting findings to the school) (KS1 and 2)
- measurement – through weighing the bags, and practically understanding the processes involved (eg learning that it is good practice to weigh things twice to be sure of an accurate result) (KS1 and 2)

## Science:

- working scientifically - gathering and recording data, recording findings (KS1 and 2)
- making predictions and suggesting improvements, reporting and explaining results (KS2).

## Design and Technology:

- designing, making and evaluating – designing a method for weighing food waste without touching the food (KS2).

## Computing:

- using technology purposefully to create, organise, store, manipulate and retrieve digital content (data tables) (KS1)
- using software and designing systems to collect, analyse, evaluate and present data and information (data spreadsheets) (KS2).

## Geography:

- geographical skills - creating (KS2), annotating (KS1) and using a simple plan of the school which shows collection points.

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# Fab Food Pupils' Checklist

Name : ..... Date : ..... / ..... / .....

## Preparation :

- Are all the equipment, caddies and bins in place?
- Do we have a plan of what goes where?
- Are there correct stickers on everything that needs one?
- Do we have a list of who is doing what, and when?
- Have we spoken with the cook and/or catering manager?
- subtract the weight of the bin for each of their results and then enter their final figures into the spreadsheet / table

## Measuring Food Waste – What To Do :

- set the scales at the correct units
- weigh the bin and the liner
- take the reading with the bin off the floor, record the result
- take the liner to the compost bin
- set up a new liner
- take results to the people with the spreadsheet / table
- subtract the weight of the bin for each of their results and then enter their final figures into the spreadsheet / table.

## Recording Data

There's an example on the next page of a table that you could use to record figures from your audit. You could use it to help design your own tables or spreadsheets. Don't forget to make a note of any kinds of food waste that you have decided to leave out of these figures (eg milk and drinks, packed lunches): this should also be mentioned in your report.

## Making a Report

You can use the data from your table to help write your report. This could include percentages (as on the breakdown table, over page). If you have carried out surveys of pupils and catering staff, you might want to use some of this information, too.

Here are the main questions you will want to think about in your report:

- How much food is being wasted?
- What types of food are most often wasted?
- What initial ideas do you have about why this might be so?
- What seem to be the problem areas?



# Examples Of A Table

Classrooms							
Caddies	Location	Who's Responsible	Mon (kg)	Tues (kg)	Weds (kg)	Thurs (kg)	Fri (kg)
Large							
Small							
Squash							
Totals :							
Grand Total for a week (A) :							

## Meals and Break Times

	Mon (kg)	Tues (kg)	Weds (kg)	Thurs (kg)	Fri (kg)
Dinner					
Pudding					
Break time / Fruit					

## Breakdown

	Total (kg)	% of Total
Fruit waste		
Playground waste		
Dining Hall		
Kitchen		
Staff Room		
Classrooms (This is the same as Grand Total (A) for classrooms, above)		
Grand Total for a week:		100

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# School Meals Catering Survey

School Meals

Survey Conducted By : ..... Date : ..... / ..... / .....

**We want to help the school to reduce food waste and save money on kitchen costs.  
Please help us get a better understanding of how the catering service operates.**

1. What are the top five most wasted foods at the school?

.....  
.....  
.....

2. What do you do with leftover food, which has been cooked or bought, but not served?

.....  
.....  
.....

3. How is fruit ordered and how is waste fruit disposed of?

.....  
.....  
.....

4. How is milk ordered and how is waste milk disposed of?

.....  
.....  
.....

5. What are the school's main problems with food waste?

.....  
.....  
.....

6. What factors contribute to food waste?

.....  
.....  
.....

7. What happens to the school food waste? (eg kitchen scraps, food left on plates)

.....  
.....  
.....

8. How do you think food waste can be reduced?

.....  
.....  
.....



# School Meals Pupil Survey

## School Meals

Survey Conducted By : ..... Date : ..... / ..... / .....

1. What are your favourite meals?

.....  
.....  
.....

2. What meals don't you like?

.....  
.....  
.....

3. Are your portion sizes...? (Please circle.)

Just Right

Too Big

Too Small

4. If portions are too big, what sort of food do you leave?

.....  
.....  
.....

5. What is good about your school meals?

.....  
.....  
.....

1. What might be bad about them?

.....  
.....  
.....

2. What do you think happens to any leftover food?

.....  
.....  
.....

3. Do you think you get long enough to eat your dinner?

.....  
.....  
.....

4. What suggestions do you have for reducing food waste?

.....  
.....  
.....





# Step 2 : Action Plan

**Let's see what we can do about it**

**Well done! You have completed Step 1, the first Food Waste Audit, and are ready to move on to creating a Fab Food Action Plan.**

The plan is created by pupils and teachers in consultation with others, including catering staff.

It uses the results of the Food Waste Audit to plan ways to reduce the amount of food wasted. This includes deciding which activities are going to work best during Food Awareness Week.

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# Call a Meeting

**You have had feedback on the report you created from the first audit.  
So now teachers can meet with the lead children to make a plan.**

This meeting:

- looks at the report and the feedback, and decides what to focus on (see 'What's the problem?')
- makes plans for waste disposal and composting
- suggests actions to reduce food waste
- sets a date for the **Food Awareness Week** and starts to choose the main activities (see 'Step 3. Food Awareness Week')
- agrees how the rest of the school is going to know about the **Fab Food Actions**
- sets a date for **Step 4, the second Food Waste Audit.**

We say more below about each of these things.



# What's the problem?

To start with, your meeting will want to look at where most food is getting wasted, and what the cause of that waste might be. This will tell you what your **Fab Food Action Plan** needs to focus on.

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The download 'What's the problem?' looks at some common issues with food waste in schools, with ideas about:



**Fruit**



**Rice and Bread**



**Student Choices**



**Portion Sizes**



**Kitchen Waste**



**Milk**

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Which of these issues is most important in your school? You won't be able to deal with all of them at once, so **pick the two or three that matter most**, and where something can really get done.

# Composting

You will definitely need to think about what happens to the waste.

Food waste can usually be turned into compost to help grow new plants (including vegetables). The download '**What to put in a compost bin**' shows you what can and can't be composted.

Maybe the compost can all get used in your school garden?

Think about how you manage compost bins so as to avoid overloading them. Will you need to get extra compost bins, or even to hire a wheelie bin?

If there is no suitable area for a school garden, or there is too much waste, then compost collections may need to be organised through the council.



# Fab Food Actions

You have decided on the main issues. So what are you going to do about them?

At your meeting, pick three or four of the ideas below. (There are even more ideas on the download, 'What's the problem?').

- prepare trendy **name labels for fruit** in Nursery and KS1 (eg 'X Men, See-In-The-Dark Carrots')
- design a certificate for the class or group with the **least wasted food / fruit** (linked to existing reward or house point systems)
- design a certificate for the class or group with the **highest number who finish their school dinners** (linked to existing reward or house point systems)
- create **displays in the dining hall on food waste** and how to eat healthily, based on that day's menu
- having talked about it with catering staff, **send out a questionnaire** to each class on likes and dislikes for fruit, drinks and school dinners
- create a **survey for parents** and children, to find out the most popular fruits
- set up a **fruit tasting day**
- have a **themed day to try new food** and celebrate different sorts of food
- **cut fruit into smaller pieces** for Nursery and Reception
- buy a **smoothie maker** and decide who gets offered the smoothies, when and where
- appoint **fruit monitors** to collect fruit that is almost over-ripe – they then share it out with other classes or it goes to the smoothie maker
- appoint **monitors to collect up any unused milk** for the smoothie maker (this can't be anything left in cartons)
- **make a Bread Plan** - freezing or refrigerating bread, using it as toast for the morning and so on
- agree with catering staff to **give out second helpings to children**
- agree with catering staff that **students can ask for a small portion of foods** they do not like or are new to them
- agree with catering staff to **reduce portion sizes** for some foods
- create a **Composting Plan**, possibly linked to a garden or eco club
- set up a **School Dinners' Council** to work with the Catering Manager to find out what the students like - and then adjust the menu
- set up a **Cooking Club** to encourage poor eaters and the ones who won't try new foods
- make a **visit to a local restaurant**, takeaway or supermarket to find out what they do with their waste food
- make an **equipment list** – fridges, smoothie makers, display materials, apple corers, cutting boards... what else?

Maybe you can think of a brilliant Fab Food Action that isn't on this list?

Now is a good time to try it out!

# Food Awareness Week

Wow! We are getting there! We have a plan.

The meeting will now need to set a date for **Food Awareness Week**.

What would we like the main activities to be (eg assemblies, cooking demonstrations, food tasting lessons, action at home)? Which do we think will have the most effect?

A list of **Food Awareness Week** activities can be found in **Step 3. Food Awareness Week**.

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# The Second Food Waste Audit

There is one more date to agree at your meeting. Once you have carried out your **Fab Food Actions** and had your **Food Awareness Week**, you will need to see how well it has all worked.

This means setting a date for **Step 4, The Second Food Waste Audit**. Be sure to allow enough time for your actions to start working, and for Food Awareness Week to have had an effect on what people do. For example, if you had your first audit at the start of Half Term, the second one might be right at the end of the same Half Term, or at the start of the next one.



# How will people know?

The best plan in the world isn't going to get anywhere if nobody knows about it. So part of your **Fab Food Action Plan** needs to agree how the school will know about it.

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Here are a few ideas:

- make a poster for the entrance area or dining hall...or loads of posters all over the school (don't forget the staffroom!)
- use part of an assembly to tell the world about your plan
- work in pairs to present the plan to every class
- set up another meeting with the catering staff
- ask the Headteacher or Deputy to make sure that they tell all the teachers about it at the next staff meeting
- put an announcement on the school website
- ask for details to be tweeted by the school
- put an article in the school newsletter



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While you are telling people about the **Fab Food Action Plan**, you might also want to publicise some of the main points from your **Food Waste Audit** report.

Will your ideas simply be an announcement of what you are going to do? Or do you still need to hear people's opinions, before you go ahead with some of the **Fab Food Actions**?

While it might slow plans down a little, involving as many people as possible in the decisions often makes it more likely that your actions will work out well.

Don't forget to tell your families and friends about what you are doing!

# Curriculum

## Mathematics:

- addition and subtraction – as part of data reporting and evaluation (KS1 and 2)
- number – within the reporting and evaluation process (eg smaller and larger numbers at KS1; fractions and percentages at KS2)
- statistics – as part of the reporting and evaluation process (KS2) or through tally charts for a rewards scheme (KS1).

## English:

- spoken language (eg presenting Action Plan) (KS1 and 2)
- writing (eg creating reward certificates and instructional texts at KS1 and 2, report and article writing at KS2).

## Science:

- working scientifically - recording and interpreting findings (KS1 and 2)
- making predictions and suggesting improvements, reporting and explaining results (KS2);
- materials – everyday materials (food, liquids, compost at KS1); states of matter, properties and changes of materials (KS2).

## Design and Technology:

- cooking and nutrition (eg food tasting sessions, the provision of different foods for different needs).

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# What to put in a compost bin

## Making Compost

Here is some information about what you can add to your compost bin to make the best compost. Aim for a balance of **50% greens and 50% browns in your compost bin** to get the best mix.

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### Greens

Quick to rot and provide important nitrogen and moisture.

- Animal manure with straw
- Annual weeds
- Bindweed
- Bracken
- Brussels sprout stalks
- Carrot tops
- Citrus peel
- Coffee grounds
- Comfrey leaves
- Cut flowers
- Deadly Nightshade
- Fruit peelings and pulp
- Fruit seeds
- Grass clippings
- Hay
- Hedge clippings
- House plants
- Ivy leaves
- Nettles
- Old bedding plants
- Perennial weeds
- Plant debris
- Poisonous plants
- Prunings from soft plants
- Rhubarb leaves
- Seaweed
- Tea leaves and bags
- Urine (Wee!)
- Vegetable peelings and pulp



## Browns

Slower to rot, these provide carbon and fibre and allow air pockets to form.

- Autumn leaves
- Cardboard
- Christmas tree
- Corn starch liners
- Cotton towels
- Cotton wool
- Egg boxes
- Egg shells
- Hair
- Natural corks
- Nuts
- Paper bags
- Privet
- Prunings from evergreens
- Prunings from thorny plants
- Straw
- Sweetcorn cobs
- Tomato plants
- Used kitchen paper
- Vacuum cleaner contents
- Wood ash
- Wool

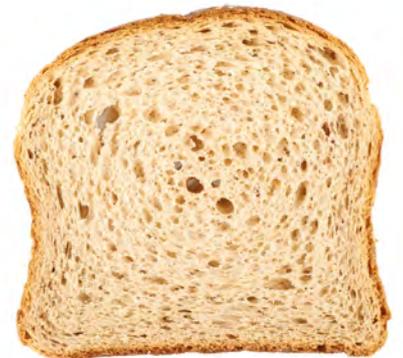


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## Keep this out!

Certain things should never be placed in a compost bin in a garden - although some councils will collect them in their food waste service (check your local Council information)

- Bones
- Bread
- Cans
- Cat litter
- Cigarette ends
- Cling film
- Coal ash
- Crisp packets
- Dairy products
- Disposable nappies
- Dog faeces (Poo!)
- Dog food
- Drink cartons
- Meat and fish scraps
- Olive oil
- Plastic bags
- Plastic bottles
- Soiled tissues



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# Step 3 : Food Awareness Week

## **A week of Fab Food action**

**This is a week of activities arising from the Fab Food Action Plan. The activities can be carried out in class, across the school, through an assembly, or at home.**

Together, they help make wasting less food fun and memorable. Your Food Awareness Week will really put Fab Food on the map!

# Food Awareness Activities

As part of your Fab Food Action Plan, you will want to choose activities from the list below. You may want to add your own.

**Assembly** – this starts Food Awareness Week with a bang!

- **Assembly plan**
- **Persistent Offenders:** the top 15 most wasted foods

**Home Survey** – how is Fab Food affecting you and your family?

**Food Waste Diary** – log what you waste at home and school during the whole week.

**The Magic of Food** – taste new nosh and think about favourite foods

- **Magic of Food Lesson plan**
- **Magic of Food Worksheet**
- **Magic of Food : Food Tasting Photos**

**Menu planning** – plan to eat well and waste less

**Potions and portions** – some juicy experiments with fruit!

- **Lesson plan**
- **Worksheet Sheets**

**The Cost of Food** – what is the real cost of wasting food?

- **Lesson plan**
- **Worksheets**

**Food facts** – test your Fab Food knowledge! Best done towards the end of the week.

- **Quiz sheets**
- **Quiz answer sheets**

**Food Awareness Reflection Form** – what have I learned this week?

# Some things to think about

## **How will the week flow?**

For example, you might begin with an assembly on the Monday; afternoon sessions for each class from Monday to Thursday; and a celebration at the end of the week (how about a campfire cook-up?)

## **How will you grab people's interest?**

For example, you could start the week with a 'top tips' poster competition, with the results announced on Friday. Would bringing in visitors with outside expertise help bring a wow to the week? Or taking children out on a visit?

## **What will work best where, and with whom?**

For example, activities like 'potions and portions' can be readily differentiated for work with younger children, but need a washing-up area.

## **Allow time.**

In particular, build in enough time for home-based activities like surveys and diaries. Information from these activities can go into the final report following **Step 4, The Second Food Waste Audit**.

## **What else?**

For example, you might want to build in extra lessons or assemblies to look more closely at the first audit and report, to develop action plan activities or to get parents involved.

# Curriculum

## Mathematics:

- addition and subtraction – eg as part of cost of food, menu planning, potions and portions and magic of food activities (KS1 and 2)
- measurement – eg as part of potions and portions and magic of food activities (KS1 and 2)
- number – fractions and percentages, as part of the assembly, cost of food and magic of food activities (KS2)
- statistics – as part of the assembly, or through data analysis in cost of food activities (KS2, or through simple tally charts at KS1).

## English:

- spoken language (eg presenting findings at the assembly) (KS1 and 2)
- writing (eg creating labels and instructional texts at KS1 and 2, diary writing, menu planning).

## Geography:

- locational knowledge – countries of the world (KS2)
- distribution of food (eg looking at food miles as part of cost of food activities) (KS2).

## Science:

- working scientifically - gathering and recording data, recording findings eg as part of magic of food and potions and portions activities (KS1 and 2)
- making predictions and suggesting improvements, reporting and explaining results (KS2)
- animals, including humans – food, nutrition and hygiene (KS1), diet and nutrition (KS2)
- states of matter / materials – food preservation (KS2).

## Design and Technology:

- cooking and nutrition - using and applying the principles of a healthy and varied diet, preparing dishes, understanding where food comes from (KS1 and 2).

## PHSE:

- Health, nutrition and hygiene - as part of menu planning, potions and portions activities (KS1 and 2).

*Waste less*  
*Save more*

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*live well for less*

# Assembly Plan

**This plan will help your Food Awareness Week get started with a bang!**

This assembly works best in the lead up to, or at the start of, Food Awareness Week.

Make sure that any leading children are familiar with:

- the report from **Step 1, the First Food Waste Audit**
- proposals from **Step 2, Action Plan**

Some pilot schools invited a magician to the assembly, to make money 'disappear.'

---

**Time: 30 minutes**

**Ages: All**

**Objectives:**

- to understand the aims of **Fab Food**
- to understand the amount of food waste in the school
- to know about **Food Awareness Week**

**Resources:**

- Flip chart and pens
- A 'Persistent Offenders' list (See **The Top 15 Wasted Foods**)
- Display materials (eg from [wastelessavemore.sainsburys.co.uk](http://wastelessavemore.sainsburys.co.uk) or [lovefoodhatewaste.com](http://lovefoodhatewaste.com))
- Slides or banners of facts and figures from the first Food Waste Audit
- Materials for the programme, such as large bin, food caddy, food items, menu planner, shopping list, fridge thermometer
- CD of food-related music

**Outline plan**

Children enter to food-related music.

## Activity 1: Food Waste Facts:

Outline some headline facts about food waste, such as:

- 10 million tonnes of food are thrown away in the UK each year
- about 1/3 of all UK food is wasted
- food worth £13.5 billion is wasted in homes
- the average UK family wastes about £470 each year (can children think what this could buy a family?)  
(Source: [www.wrap.org.uk](http://www.wrap.org.uk), January 2017)

Meanwhile:

- 795 million people (about 1/9 of the world's population) are seriously under-nourished
- About 2 million people in the UK do not get enough proper food.  
(Sources: FAO, in [www.worldhunger.org/2015-world-hunger-and-poverty-facts-and-statistics](http://www.worldhunger.org/2015-world-hunger-and-poverty-facts-and-statistics);  
[policy-practice.oxfam.org.uk/our-work/inequality/food-poverty](http://policy-practice.oxfam.org.uk/our-work/inequality/food-poverty))

You might need to help explain some of the words to children.

With younger children, use visual ways to explain the fractions. For example:

- empty out 1/3 of the contents of a full shopping basket to show how much gets wasted
- 1/9 of the children at the assembly stand up to show the proportion of people around the world who are seriously under-nourished.  
(Note: it may well be that some families in your school are among those in the '2 million' statistic, so this will require some sensitivity).

---

## Activity 2: Persistent Offenders:

Some food waste is unavoidable, such as seeds, pips and peel ... but most waste is avoidable.

- Ask: What foods are most often wasted?
- Children try to name fifteen foods. Note ideas on a flip chart.
- Use the 'Persistent Offenders' list to compare answers.

### Activity 3: Introducing Fab Food:

Explain to the children that the school is involved in a project called 'Fab Food', and that this is linked to a programme from Sainsbury's called 'Waste less, Save more.'

#### Outline the aims:

- to reduce food waste at school (and home)
- to help save money
- to act as responsible citizens

Ask the children if they like to save money. If a school dinner costs about £2 per day, how much will this equal for a school week?...for a month? (Note. Free School Meals cost a similar amount, but parents do not meet the cost).

Explain that the school has already made a start by completing a food waste audit: measuring how much food was wasted across the school, and where this happened most.

Introduce the staff and children who are leading this work. They present a few of the main findings from the first audit.

Invite all children and staff to become **Fab Food Champions**.

Do they think that, together, they and the school will be able to cut its food waste in half?

Leading children present the main things on the **Fab Food Action Plan**.

Explain when '**Food Awareness Week**' is taking place, and that this will involve classes doing special Fab Food sessions. Explain some of the main activities that have already been agreed (eg a poster competition).

Children leave to food-related music.



Waste less  
Save more



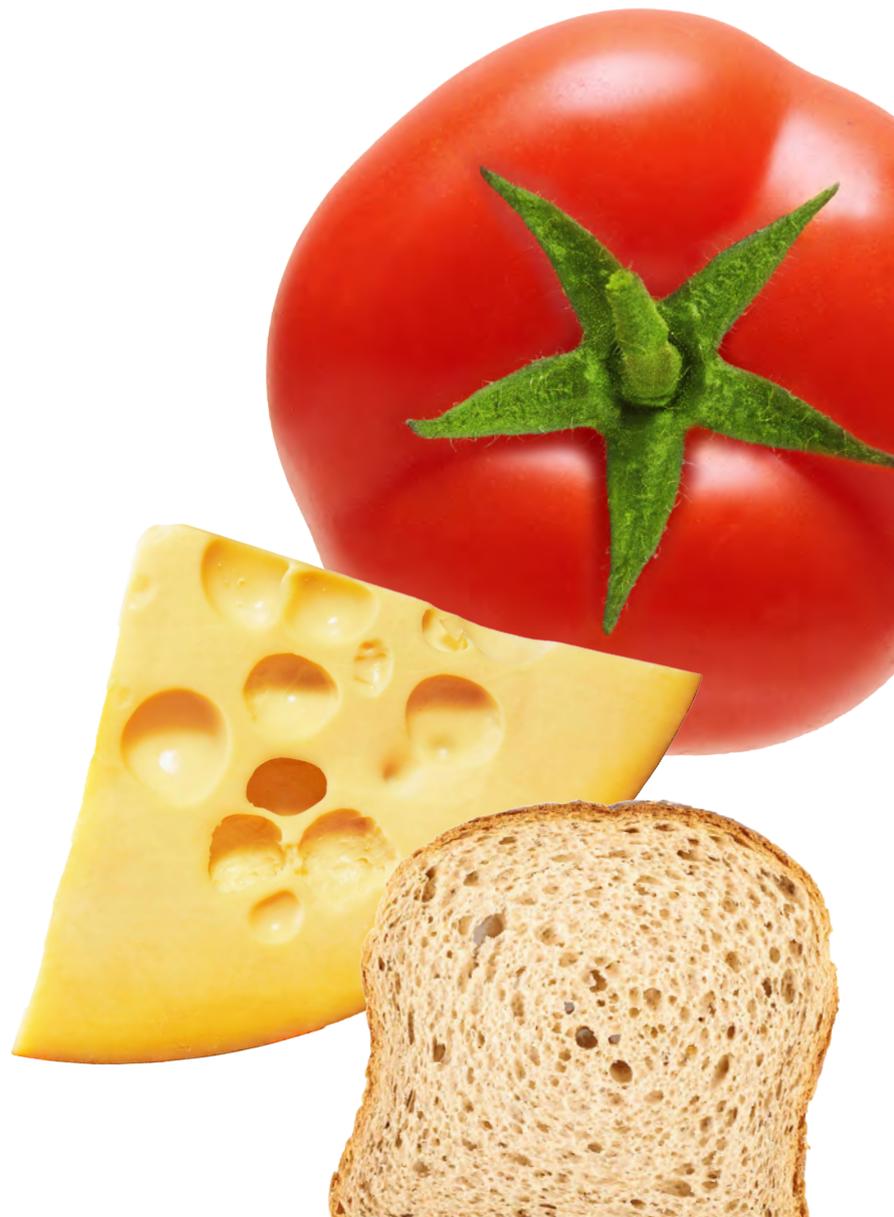
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# Persistent Offenders

## The top 15 wasted foods in the UK

(Figures show portions wasted on average, daily)

- **SLICES OF BREAD** - 24,000,000
- **GLASSES OF MILK** - 5,900,000
- **POTATOES** - 5,800,000
- **CARBONATED SOFT DRINKS** ('Fizzy pop') - 4,200,000
- **CHEESE** - 3,300,000
- **RICE AND PASTA** - 2,000,000
- **SLICES OF HAM** - 1,900,000
- **HOMEMADE MEALS** - 1,500,000
- **TOMATOES** - 1,500,000
- **SAUSAGES** - 1,500,000
- **BANANAS** - 1,400,000
- **APPLES** - 1,300,000
- **LOAVES OF BREAD** - 1,300,000
- **YOGHURTS** - 1,200,000
- **EGGS** - 1,100,000



# Fab Food Home Survey

Name : ..... Class: .....

Fab Food helps you, your school and your family learn about food waste.  
We want you to waste less food, help save money and have some fun!

Ask your parent, guardian or other family members to help you with this – it's for all of you.

## Questions for you

1. Which Fab Food activities did you enjoy most?

.....  
.....

2. Why?

.....  
.....

3. Which Fab Food activities did you enjoy least?

.....  
.....

4. Why?

.....  
.....

5. Which Fab Food activity taught you something you could do at home?

.....  
.....

6. What have you already tried at home?

.....  
.....

## Questions for everyone at home to answer together

1. Have you shopped differently to waste less food?

YES

NO

If yes, how much do you think you have saved each week? £ .....

If no, what help do you need to reduce your food bill costs?

.....  
.....

... or were you already super-food-savers? .....

2. Do you think you have reduced your food waste at home?

YES

NO

3. Has Fab Food helped you to make changes at home?

YES

NO

If yes, how?

.....  
.....

If no, what might you need help with?

- working out menus
- working out shopping lists
- food preparation
- cooking
- budgeting
- ideas for using up leftovers

Our aim is to help everyone become super-food-savers!

Further help on all these things can be found at [wasteless.savemore.sainsburys.co.uk](http://wasteless.savemore.sainsburys.co.uk)

4. Please ask everyone who lives with you to write one thing that they are doing as a result of Fab Food. If they don't have any ideas, you can help them.

Please return this to your class teacher by :

# Food Waste Diary

Name : ..... Class: .....

As part of Food Awareness Week, keep this diary to record any food waste at home for at least five meals.

Day: .....

Meal: .....

List any waste (plates or cooking):

.....

.....

.....

.....

.....

.....

.....

How could you prevent waste?

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Day: .....

Meal: .....

List any waste (plates or cooking):

.....

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.....

.....

How could you prevent waste?

.....

.....

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.....

At the end of the week, look back at your diary.

Are there any foods that are wasted regularly?

.....

What will you do to save these in future?

.....

**Day:** .....

**Meal:** .....

**List any waste (plates or cooking):**

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.....  
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**How could you prevent waste?**

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**Day:** .....

**Meal:** .....

**List any waste (plates or cooking):**

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**How could you prevent waste?**

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**Day:** .....

**Meal:** .....

**List any waste (plates or cooking):**

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**How could you prevent waste?**

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**Day:** .....

**Meal:** .....

**List any waste (plates or cooking):**

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**How could you prevent waste?**

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**Day:** .....

**Meal:** .....

**List any waste (plates or cooking):**

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**How could you prevent waste?**

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**Day:** .....

**Meal:** .....

**List any waste (plates or cooking):**

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**How could you prevent waste?**

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**Day:** .....

**Meal:** .....

**List any waste (plates or cooking):**

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**How could you prevent waste?**

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**Day:** .....

**Meal:** .....

**List any waste (plates or cooking):**

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**How could you prevent waste?**

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# Magic of Food

# Lesson Plan

**Taste new nosh and think about favourite foods**

---

**Time: 60 minutes**

**Ages: KS1 and KS2**

**Objectives:**

- to taste a variety of foods
- to evaluate key factors when we taste new foods (eg smell, taste, appearance, colour, name, texture, perception).

(Note: Make sure to think about health and safety, including checking for any allergies beforehand).

**Resources:**

- **Magic of Food Worksheets**
  - **Food tasting photos**
  - mashed-up banana or crushed grape hidden in a container
  - 30 each of white and black grapes or green and black olives
  - differently-textured fruits – grapes, bananas, apples
  - three boxes of identical carrots
  - labels for the carrot boxes: Amazing X-Men See-in-the-Dark Carrots, Candy Carrots, Basic Carrots
  - sharp knife and chopping board
  - tasting spoons
  - two Marmite jars with the bottle covered up
- 

## **Starter – I love it, I love it not**

Ask the children what they know about Fab Food (eg from the **Food Waste Audit** or **Food Awareness Week** assembly).

Recap on the main the project ideas: to reduce food waste, to help save money, to act as responsible citizens.

Outline the learning objectives for this session (as above).

**Quick activity:** Working in pairs with the worksheet, children make a note of the foods they like and dislike most, then draw their favourite meals.

## Main – The Food Factor

What's involved when trying new foods? Children think about themselves and try to relate this understanding to others.

**Which of the following factors do they think matter most?**

- a) Visual
- b) Colour
- c) Texture
- d) Names
- e) Smell
- f) Convenience
- g) Familiarity
- h) Cool and trendy

In your pairs, circle three of these on the worksheet, then discuss your choices as a whole class.

Let's look at these factors, one at a time.

### **(a) Visual.**

Select a confident child to be blindfolded and try a food item without being able to see it. Use mashed-up banana or crushed grape. Show it to the other children for lots of 'ughs' before the child tastes it. Allow them the option to say 'I am a celebrity; get me out of here!' Discuss how they felt before and after. Use images from sheet 1 of the Food Tasting Photos to aid discussion.

### **(b) Colour.**

Ask the children which colour grape or olive they would like to try. Give them both colours. Was there a big difference in the taste? Use images from sheet 2 of the Food Tasting Photos to aid discussion.

### **(c) Texture.**

Use a variety of differently-textured fruits, such as grapes or bananas, to explore how children sometimes respond differently to the 'feel' of different foods. With older or more confident groups, blindfolds could be used.

### **(d) Names.**

Before the lesson, place identical carrots in three separate boxes, which are then labelled differently: Amazing X-Men See-in-the-Dark Carrots, Candy Carrots and Basic Carrots. Show the children the three boxes of carrots. Ask them to choose which they would prefer and why. Allow volunteers to try each one and then discuss which tastes best. Use images from sheet 3 of the **Food Tasting Photos** to aid discussion. (Note. These drinks are not healthy for children as they have a high caffeine content).

### **(e) Smell.**

Pass around the camouflaged Marmite jars. Would they like to eat it? Say 'non merci' or 'ooh la la!' Use images from sheet 4 of the Food Tasting Photos to aid discussion. Durian fruit can be found in Asia. They are so smelly that cannot be taken on public transport, but they taste divine. Natto beans from Japan also smell horrible but taste lovely.

## (f) Convenience.

Use sheet 5 of the **Food Tasting Photos** and discuss which one children would prefer to have. Would they choose different ones at different times? Why?

## (g) Familiarity.

Ask children to think of any new foods they have tried, for example while on holiday, and to tell the class about it. Use images from sheet 5 of the **Food Tasting Photos** to aid discussion.

## (h) Cool and Trendy.

It's new. It's cool. So we should all be seen eating it. Use images from sheet 7 of the **Food Tasting Photos** to aid discussion. Are there are other fashionable foods that children can think of?

What other **Food Factors** might there be? Hot and cold? Oily food? Sweet and salty? What else might we have missed out?

---

## Plenary – Food factors

### Discuss:

- What main Food Factors affect whether you will try new foods?
- What are your top tips for not wasting food?

### Extension activity

Create a poster on '**Food Factors**' or '**Top Tips for Reducing Food Waste.**'

Younger children will like the picture book "Can I Eat That?" by Joshua David Stein.

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*Save more*

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# The Magic of Food

Taste new nosh and think about favourite foods!

---

**Name :** ..... **Date :**    /    / .....

1. What foods don't you like?

.....  
.....

2. Why?

.....  
.....

3. Which foods do you like?

.....  
.....

4. Why?

.....  
.....

5. Draw and label your favourite meal...and pudding!

**My favourite meal**

**My favourite pudding**

6. Which of these factors are important when trying new foods?  
Circle **THREE** factors that you think are important.



a) Visual



b) Colour



c) Texture



d) Names



e) Smell



f) Convenience



g) Familiarity



h) Cool and trendy

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# Would you try a new food?



Coconut Tree Grubs



'Romanesco' Cauliflower

**Visual clues**

# Would you try a new food?



Black Cherry Tomatoes



Purple Carrots



Green and Pink Bread



Sweet Corn

**Colour clues**

# Would you try a new food?



Name clue

# Would you try a new food?



Natto



Durian

**Smell clues**

# Would you try a new food?



Roast Chicken with leeks and carrots



Frozen Roast Dinner Meal

**For convenience**

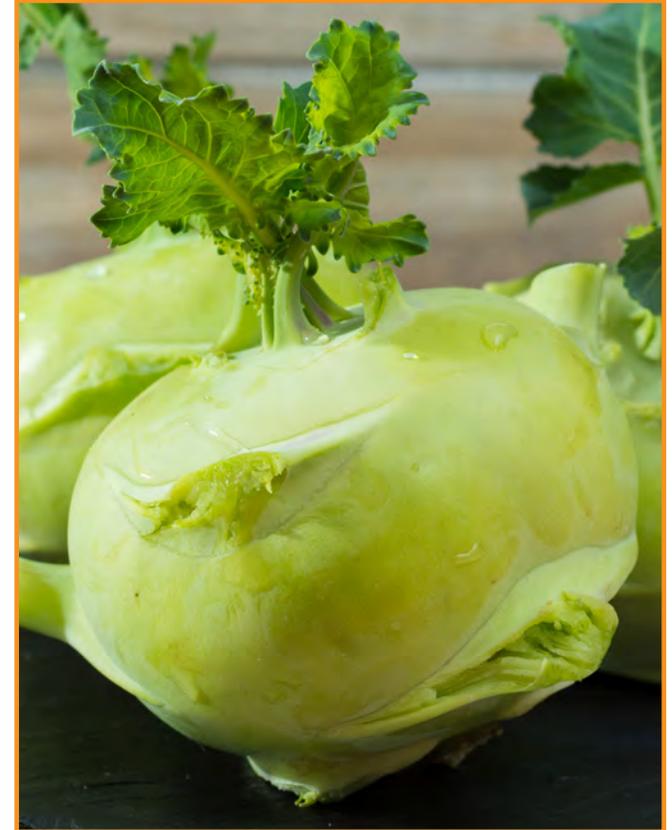
# Would you try a new food?



Star Fruit



Ramen



Kohlrabi

**Something You Have Not Seen Before**

# Would you try a new food?



Seaweed



Coconut



Octopus

**Cool and Trendy**

# Menu Planning

Plan to eat well and waste less!

---

## Lesson Plan

**Time: 40 minutes**

**Ages: Upper KS2, Years 5 & 6**

### Objectives:

- To learn to use a menu planner
- To generate a shopping list for the planned meals
- To plan meals that will ensure that nothing is wasted.

### Resources:

- A4 paper and pens, pencils
- Internet access for children to look at expert advice on food storage
- Photocopies of a simple two-day menu
- Examples of food packaging with storage and 'use by' information.

### Starter – Remember the offender

Challenge children to name the top fifteen wasted foods that were mentioned during the assembly. Jigsaw ideas across groups. Check what they have remembered against the **Persistent Offenders** list. (See the **Top 15 Wasted Foods**).

Can children remember how much money per family is lost through wasting food each year? (£470)

What other interesting facts can they remember from the assembly?

## Main – Menu mapping:

Begin a **mind map** by taking some suggestions about how less food could be wasted. Organise the suggestions under the headings 'reduce', 'reuse' and 'recycle.'

Here are some prompts for each heading:

- **Reduce:** portion control; planning meals; checking cupboards; writing a shopping list; using technology such as apps linked to smart fridges.
- **Reuse** (using the food in the same form): using spare mashed potato for a shepherd's pie; spare vegetables in a soup; leftover fruit in a smoothie; cooked meat in a stir fry or pie.
- **Recycle:** using a compost bin, changing waste to energy (Sainsbury's in Cannock puts food waste into an anaerobic digestion plant - the methane this produces generates the store's electricity).

Ask the children to look at the following approaches.

---

## Storing food properly

List some foods on the board and **ask the children to discuss how they would store them** (eg fruit, vegetables, bread, cheese, potatoes). Look at the storage and 'use by' information on a selection of food packaging, and discuss what is meant by terms such as 'best before,' 'display until and 'use by.' (These labels often cause confusion: supermarkets are starting to just show 'use by' information).

Children can compare their answers with advice from:

- **NHS (safe food storage):** [nhs.uk/Livewell/homehygiene/Pages/how-to-store-food-and-leftovers-safely.aspx](https://www.nhs.uk/Livewell/homehygiene/Pages/how-to-store-food-and-leftovers-safely.aspx)
  - **Love Food Hate Waste:** [lovefoodhatewaste.com/why-save-food](https://lovefoodhatewaste.com/why-save-food)
  - **Hubbub:** [hubbub.org.uk/food](https://hubbub.org.uk/food)
- 

## Over-shopping

Give children a simple two-day menu, including all drinks and snacks. They work in pairs to write a shopping list for it, including approximate quantities for everything they will need. Discuss the fact that food is often packaged in set quantities such as a 3kg bag of potatoes, a 1kg bag of rice.

Play 'Boggle' with the list — a student calls out something on the list and another pair ticks it off if it has it. The winner is the pair with something that nobody else has thought of.

When children look at their list, what would be left over at the end of the two-day menu?

Make a list of these items, and then highlight any fresh food. This is particularly likely to be wasted. Could they have bought an alternative food to help reduce waste?

## Using up leftovers

Can children plan a new meal which uses the ingredients left over from the two-day menu?

Foods that can be made using leftovers include smoothies, pies, soups, salads, and ice creams.

There are loads of ideas for cooking with leftovers on [wasteless.savemore.sainsburys.co.uk/food-rescue](https://wasteless.savemore.sainsburys.co.uk/food-rescue)

Explore other ways of using leftover food creatively, such as providing food for homelessness charities, hostels, food banks, animal rescue centres etc.

---

## Plenary – Taking it home

Carry out a class survey of how many children have caddies at home to dispose of leftovers.

Discuss [the use of compost bins](#) and any food waste collections organised by your local council (not all councils do this). You might want to download a list of compostable materials.

( See [What to put in a compost bin](#)).

How many children are involved in menu planning and cooking at home?

These plenary activities can be linked to [Home waste diaries](#) or [Home surveys](#).

---

## Extension activity

Children work in small groups to present their top tips for reducing, reusing and recycling food waste. Presentations can take place in a range of formats such as posters, oral presentations, interviews, news reports, dramatised presentations, songs, raps, poems or board games.



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# Potions and portions

## Some juicy experiments with fruit!

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### Lesson Plan

**Time: 90 minutes**

**Ages: Key Stage 2**

**(tasting and measuring activities can be modified for younger children)**

#### Objectives:

- Learn about fruits, vegetables and healthy eating
- Consider portion sizes
- Explore different fruit flavour combinations
- Explore factors that affect people's desire to try out new flavours
- Measure fruit waste and understand the difference between avoidable and unavoidable waste

(Note. Make sure to think about health and safety, including checking for any allergies beforehand).

#### Resources:

- **Potions and Portions Worksheet** – individual copies, one per child
- Additional Fact File information eg from listed web links
- Pencils
- 8 x 150ml measuring cups
- 8 x clear pint plastic beakers for 'waste'
- 8 x clear pint plastic beakers for 'potion'
- 3 x clean cloths
- 3 x tea towels
- 6 x chopping boards
- 3 x chef's knives
- 6 x corers
- washing up liquid
- washing up facilities
- 6 x buckets = 3 with water for rinsing cups, 1 for waste juice, 1 for waste from apples
- food waste caddy
- a selection of 1 litre juice cartons with different colours and flavours of juices for the pupils to taste and experiment with, including: apple, prune, red grape, apple & raspberry
- jugs or cups with labelled samples of each flavour of juice
- apples – one per group
- examples of apple or other fruit products (eg crisps)
- sensitive weighing scales for apples and apple waste (eg spring balances)
- prepared mixes of "potions" and labels which can be added part way through the activity:
  1. "Dark delight" = Apple and Prune Juice
  2. "Crimson crush" = Apple, Red Grape and Apple & Raspberry
  3. "Orchard's promise" = Apple and Grape
- a selection of full or empty orange and pineapple juice cartons, for their packaging information

## Starter: Five a day

In groups, children try to name as many different fruit and vegetables as they can. They highlight those that they think are grown in the UK.

**Discussion:** have you ever heard someone say, “Make sure you have your five a day”? What does this mean? What are your five a day? An apple can be counted as one of your five a day. Why do we need them?

Some basic information:

- 5 x 80 gram portions of fruit and vegetables daily lowers the chances of getting serious health problems (5 x 80 = 400grams)
- these foodstuffs provide us with lots of vitamins and minerals
- they contain dietary fibre, which keeps our tummies healthy
- they tend to be lower in calories than many other foods, so can also help keep us at a healthy weight.

More information:

- [nhs.uk/Change4Life/Pages/five-a-day-portion-sizes.aspx](https://www.nhs.uk/Change4Life/Pages/five-a-day-portion-sizes.aspx)
- [nhs.uk/Livewell/5ADAY/Pages/Portionsizes.aspx](https://www.nhs.uk/Livewell/5ADAY/Pages/Portionsizes.aspx)

Children take a quick look at some orange or pineapple juice cartons (these are not the juices they are about to taste). What does the information on them mean?

- Fruit juice from concentrate is fruit juice which has had all the water taken out of it to take up less space when it is transported. Water is added to the concentrate before it is packed for sale.
- This sort of juice is also pasteurised: heated quickly to remove harmful bacteria and make it safe to drink. Fresh fruit juice from shops is also pasteurised.
- As long as the concentrated fruit juice says that it is made from 100% fruit juice and doesn't contain any added sugars or syrups, it has the same nutritional value as fresh fruit juice.

More information:

- [livestrong.com/article/397693-juice-nutrition-from-concentrate-vs-not-from-concentrate/](https://www.livestrong.com/article/397693-juice-nutrition-from-concentrate-vs-not-from-concentrate/)

## Activity 1: Tasting time

One fun way of having one of your five a day is in a 150ml glass of smoothie (fruit or vegetables blended together). This lesson involves children trying three blends of fruit smoothie and then creating their own.

Provide jugs of blended smoothie (labelled with smoothie names but not the contents) and pour small amounts into plastic cups for children to taste. Allow time for children to taste all three.

The smoothies are:

1. "Dark delight" = Apple and Prune
2. "Crimson crush" = Apple, Red Grape and Apple & Raspberry
3. "Orchard's promise" = Apple and Red Grape

The smoothies aren't named with their fruit contents, to encourage children to try new flavours and think about which factors matter when we try new foods.

Page 1 of the **Potions and Portions Worksheet** asks the children to think about the following factors:

- **Visual** - which looks most delicious?
- **Colour** – which colour looks tastiest?
- **Names** – which name sounds tempting?
- **Smell** - which smells appetising?

Children mark their answers onto the worksheet.

When we try something we're not sure about, we can sometimes be pleasantly surprised.

What other factors might there be (eg texture - smooth or lumpy)?

Children note down anything that they think has been missed out.

Children compare their answers and each child decides which they think is the most desirable smoothie.

The class takes a vote. Children are then told what fruits are in which smoothie.

Children tip out any unwanted smoothie into a bucket and rinse out their cups.

They can reuse their cups for their own blend.

## Activity 2: Blending – Making a potion

Children create their own fruity potions by combining the contents of different jugs of fruit juice: apple & raspberry, prune, apple and red grape.

A healthy smoothie that counts as one of their five a day will need to contain 150ml of fruit or vegetable juice. That's 3 x 50ml, so they can have 3 x different juices, or 2 x apple and 1 x red grape, for example. This is shown on page 2 of the **Potions and Portions Worksheet**.

It may help to show 80 grams of fruit next to the relevant juice in its jug. 80 grams is an adult portion. People need different amounts, depending on how old they are, their body size and how active they are. The right portion size for anybody is usually their own handful.

Working in groups, children decide which fruit juices they want to combine. Adults help supervise the pouring.

Each group shares out its 150ml, to taste. Does everyone in the group like the mixture? Give it a name.

---

## Activity 3: Weighing waste

Why do we waste food? We often cook or buy too much and it gets wasted. This is especially true of fresh fruit and vegetables, salad, bread and cakes. So, how much fruit is wasted when we simply peel and core an apple?

Each group is given a whole apple. They weigh the apple and record its exact weight on page 3 of the **Potions and Portions Worksheet**. They then use a corer and a peeler to separate the edible part from the waste.

They weigh the waste and record its exact weight. By deducting the figure for the waste from that for the apple, can children work out how much could be eaten? Did different tools create more waste than others?

**Discussion: what could we do with the waste?**

- Juice it?
- Apple crisps from peel?
- What parts could we have eaten? (not pips or stalk, but cores can be juiced)
- What do we mean by avoidable and unavoidable waste?
- What do we do with unavoidable waste – compost?

**The Apple Challenge ...** If an apple costs 20p and we are throwing away a quarter of what is edible, how much of the edible apple are we wasting each time? See page 4 of the **Potions and Portions Worksheet**.

## Plenary – Nothing goes to waste

Children collect up any leftover apple:

- anything that has been chewed goes to compost;
  - anything that has not been chewed can go into a juicer or for making smoothies, pies or cakes.
- 

## Extension activities

Children research and list different varieties of apple. They can do this online, or by visiting a greengrocer's or large supermarket. They highlight which varieties are grown in the UK. They identify countries of origin on a globe and calculate the approximate distances the apples have travelled: this is known as 'food miles.'

Children list as many apple adjectives as they can and then create their own not-quite-nonsensical Roald Dahl word to describe a delicious apple.

Children research recipes for using up left over fruit or fruit juice. They work out how many apples would be needed to make each recipe. Younger children work out which recipes are savoury and which are sweet.

*Waste less*  
*Save more*

**Sainsbury's**  
*live well for less*

# Potions & Portions Worksheets

Name : ..... Date : ..... / ..... / .....

---

## 1. Tasting

	<b>Dark Delight</b>	<b>Crimson Crush</b>	<b>Orchard's Promise</b>
<b>Which looks most delicious?</b>			
<b>Which colour looks tastiest?</b>			
<b>Which name sounds tempting?</b>			
<b>Which smells appetising?</b>			
<b>Other notes</b>			

Before tasting I think my favourite will be .....

After tasting my favourite is .....

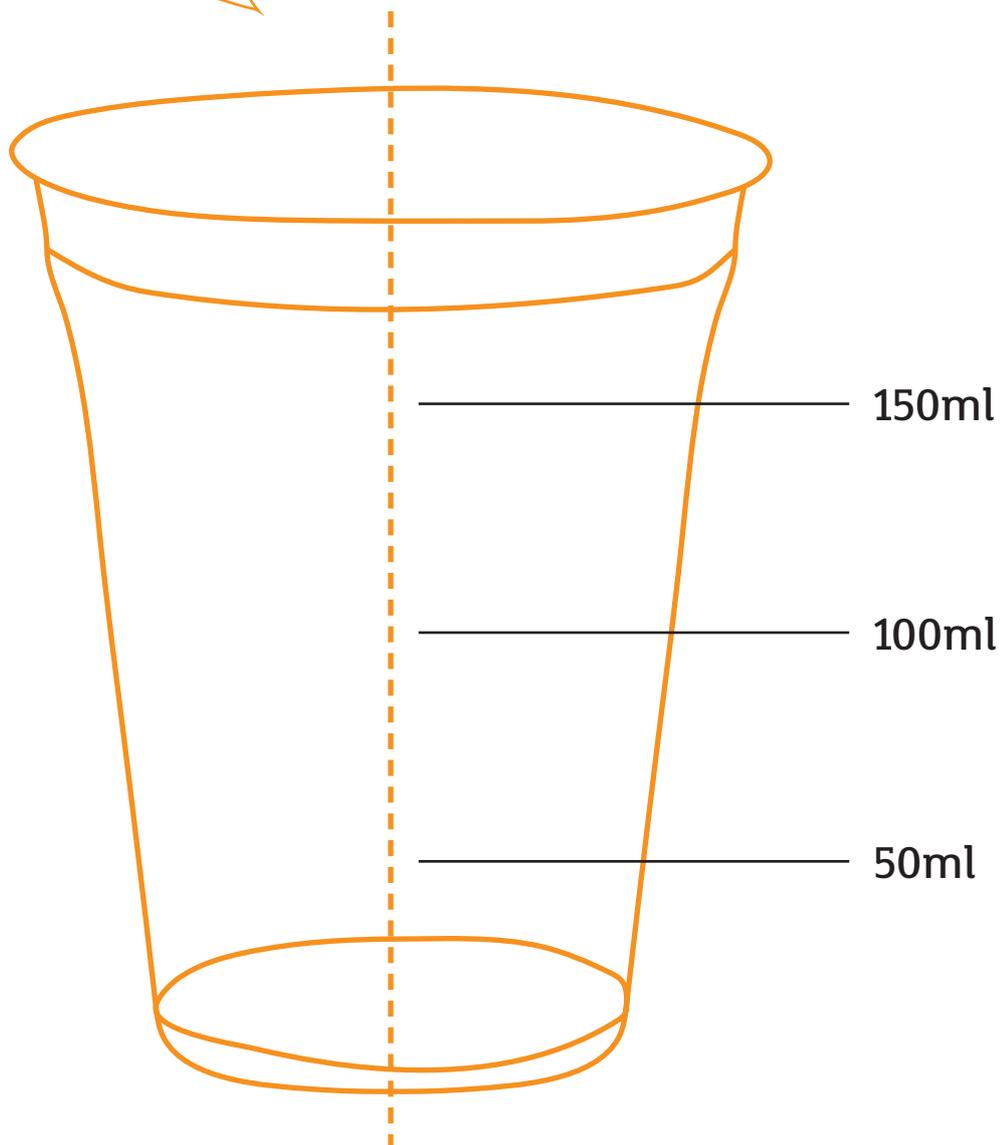
## 2. Blending

Select three flavours from the list to create your own smoothie  
(you can choose one more than once):

Apple and raspberry juice       Apple juice

Red grape juice       Prune juice

*150ml of smoothie is  
one of your 5-a-day!*



### 3. Weighing apples

- 1. Weight of whole apple .....g
- 2. Weight of edible part .....g
- 3. Weight of waste .....g
- 4. Is any of the waste avoidable?

Yes

No

- 5. What could you do this with this to prevent waste?

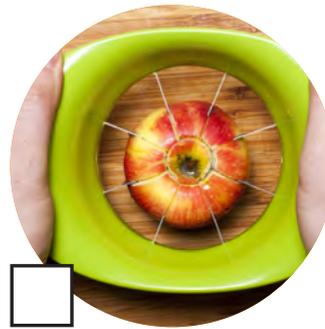
.....

.....

.....

.....

- 6. Which tools did you use?



Other? .....

- 7. Did they make more waste or save waste? Why?

.....

.....

.....

.....

## 4. The Apple Challenge

1. If an apple costs 20p and a quarter of the edible apple is wasted, how much money has been wasted?

.....p

2. How did you work it out?

.....

.....

.....

.....

3. How much money would be wasted for a bag of 6 apples?

.....p

4. How did you work it out?

.....

.....

.....

.....



# The Cost of Food

## What is the real cost of wasting food?

---

### Lesson Plan

**Time: 60 minutes**

**Ages: Key Stage 2**

#### Objectives:

- to identify the components of a meal
- to work out the cost of shopping
- to calculate the cost of waste
- to explore some of the factors that contribute to food costs, food waste and how we can reduce them.

#### Resources:

- **The Cost of Food worksheets** – we provide differentiated versions for Y3/4 and Y5/6
- interactive whiteboard or projector / laptop with internet access.
- calculators
- tablets or laptops for each group
- globe, world map, atlas
- a range of packaging that show where the food comes from.

We have used costs from 2016/17. You may want to update these.

---

### Starter: Five a day

Explain that we are going to be focusing on the cost of food.

Ask children to think of their favourite meal. Using the worksheet, list the component parts of that meal including drinks, side dishes, sauces etc.

Younger children may need to work in small groups with adult support.

## Activity 1 – Totting up the cost

Using the Sainsbury's online shopping website, model how to find the products that the children want.

Children use the website to find all of their components and record the prices. The Y3/4 worksheet notes the cost of each food. The Y5/6 worksheet asks children to estimate the weight of the food they would use and its proportional cost (eg half a 1kg packet of rice is half the cost).

Add up the cost of the meal.

If half is wasted, what will be the cost to us?

---

## Activity 2 - Why does it cost that much?

Introduce the idea of production costs: seed, animal feed, vets, fertiliser, equipment, transport and then the profit for a retailer.

Children explore two examples: apples and milk

### 2L Milk

Milk – average price for 2L is 94p

Cost to farmer of cows, feed, vets, equipment and fertilizer = 64p for 2L (some cows can produce up to 30L per day!)

Cost of transport and processing = 46p for 2L

Milk	Cost to farmer (p)	We pay (p)
Cows, Feed, Vets	64	
Transport and processing	46	
TOTAL	110	94
Profit for Farmer and Shop		- 16

## 1kg Gala apples

Average price = £1.85 per kg

Cost to farmer of trees and fertilizer = 68p per kg.

Transport costs = 23p per kg

<b>Apples</b>	<b>Cost to farmer (p)</b>	<b>We pay (p)</b>
Trees and fertiliser	68	
Transport	23	
<b>TOTAL</b>	<b>91</b>	<b>185</b>
<b>Profit for Farmer and Shop</b>		<b>94</b>

Discuss transport costs to take products from where they come from and where you are. The distance that food travels from farm to plate is known as 'food miles.'

Children look at examples of food packaging and find out the countries of origin. They locate them on a map or an atlas. How might the food travel from there to here? How many food miles does it have to travel?

Not only does it cost to produce the food, transport it and buy it... but we also pay to remove it and recycle it.

The cost of organic waste collection is £1.57 per bin lift (figure from South Derbyshire District Council, Summer 2016).

Children add £1.57 to their waste total. What is the real total cost of their meal?



# Plenary

Discuss: What needs to change?

How could we save money on our shopping? Consider ideas such as:

- reducing packaging to fit more in a lorry, cutting down on transport costs
- using less fertilizer
- eating wonky vegetables
- buying from a local farmer to reduce transport costs
- hydroponic plant growth.

How can we prevent food waste to help save money?

Consider ideas introduced in other sessions and as part of the Action Plan, such as:

- freezing leftovers
- storing food correctly to stop it going off
- not buying too much
- eating all your dinner.

Make sure to share your best ideas with the rest of the school, and to tell your family about them when you get home!

---

## Extension activity

These ideas are for older or more able children.

Looking at the figures below for waste composition in South Derbyshire, children:

- produce a comparison graph
- find a percentage within a larger amount  
(eg if there are 30 tonnes of organic waste, how many tonnes are garden waste?)
- analyse data - what does this tell us about food waste in South Derbyshire? (eg the 18.3% of food waste found in general waste collections is much better than the 27.11% found in 2011, but what could people do to get this figure down to 0%?)

## Current waste composition for South Derbyshire Jan 2016

Category	Residual Waste (General collections)	Organic Waste
	% Composition	
Unavoidable food waste	1.9%	4.3%
Possibly avoidable food waste	2.2%	6.1%
Avoidable fruit and vegetables	4.8%	10.9%
Avoidable meat and fish	1.1%	0.6%
Avoidable bakery products	2.9%	3.3%
Other avoidable food waste	5.5%	3.5%
Garden waste	2.8%	66.1%
All other waste	78.9%	5.3%
Overall food waste	18.3%	28.6%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

*Waste less*  
  
*Save more*

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# The Cost of Food

What is the real cost of wasting food?

Name : ..... Date :     /     /

My favourite meal is...

Food	Cost		An estimate of how much of the food used (g)	How much did that amount cost?
	(p)	(g)		
Bin lift				

If you wasted just half of this meal, how much would it cost? .....

- How much would it cost if you did this every day for
- a) a week? .....
  - b) a month? .....

# Food Facts

Test your Fab Food knowledge!

---

## Fab Food Quiz answer sheets

Working in a group or on your own, answer these questions using your knowledge from sessions and the Sainsbury's 'Waste less' web pages.

Links:

[\*sainsburys.co.uk/waste\*](https://sainsburys.co.uk/waste)

Answers are available on a separate sheet. Don't peek!

# Fab Food Quiz - Level 1

1. Fab Food is part of a bigger project led by Sainsbury's. Fill in the missing word in the project's name.

'Waste less, Save \_\_\_\_\_'

2. The most wasted food item is .....

3. Name two things that affect whether we choose to eat something new:

i) .....

ii) .....

4. Where should you put leftover food at home?

- a) the bin      b) the caddy      c) the bath      d) the fridge

5. Finish the following sentence. By eating all the food we buy, we can reduce waste and save .....

6. Which mini-beast helps to make compost from food waste?

.....

7. What is a 'Fab Food Champion'?

.....

8. Who do you know who is a Fab Food Champion?

.....

9. How much makes up one portion of your five a day?

- a) a handful      b) an armful      c) a mouthful

10. What will you do to 'Waste less, Save more'?

.....

.....

.....

.....

## Fab Food Quiz - Level 2

1. Fab Food is part of a bigger project led by Sainsbury's.  
Fill in the missing word in the project's name.

'Waste \_\_\_\_\_ , Save \_\_\_\_\_ '

2. How many slices of bread are wasted every day in the UK? .....

3. Name three things that affect whether we choose to eat something new:

- i) .....  
ii) .....  
iii) .....

4. Where should you put leftover food at home?

- a) the rubbish bin      b) the compost bin      c) the fridge

5. "By eating all the food we buy we can reduce waste and save money."  
Explain how this works.

.....  
.....

6. In the list of 'Persistent Offenders,' which food had the lowest waste score?

.....

7. What is a 'Fab Food Champion'?

.....

8. Name two things a Fab Food Champion should do?

- i) .....  
ii) .....

9. How much makes up one portion of your five a day?

- a) a handful      b) 50ml      c) 150ml

10. What will you do to 'Waste less, Save more'?

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# Fab Food Quiz - Level 3

1. Fab Food is part of a bigger project led by Sainsbury's.  
Fill in the missing word in the project's name.

**'Waste** \_\_\_\_\_ , **Save** \_\_\_\_\_ '

2. How many slices of bread are wasted every day in the UK? .....

3. What affects whether we choose to eat something new?  
Give as many factors as you can.

.....  
.....

4. With the help of websites like 'Food Rescue,' what could you make with  
leftover apples?

.....

5. "By eating all the food we buy we can reduce waste and save money."  
Explain how this works.

.....  
.....

6. Why should you keep bananas away from other fruit?

.....

7. What is a 'Fab Food Champion'?

.....

8. Name a town which is leading the way in reducing food waste

.....

9. How much makes up one portion of your five a day?

a) a handful      b) 50ml      c) 150ml      d) 80g

10. What will you do to 'Waste less, Save more'?

.....

.....

# Food facts

## Test your Fab Food knowledge!

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### Fab Food Quiz answer sheets

Don't peek before you do the quiz!

Here are the answers to our **Fab Food quiz questions**.

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### Fab Food Quiz - level 1

1. Fab Food is part of a bigger project led by Sainsbury's. Fill in the missing word in the project's name. 'Waste less, Save **MORE**'
2. The most wasted food item is **BREAD**
3. Name two things that affect whether we choose to eat something new.  
Two from: **SMELL, TEXTURE, CONVENIENCE, LOOK, FAMILIARITY, NAME** and **COLOUR**
4. Where should you put leftover food at home? **THE CADDY**
5. Finish the following sentence. By eating all the food we buy, we can reduce waste and save **MONEY**
6. Which mini-beast helps to make compost from food waste? **A WORM**
7. What is a 'Fab Food Champion'? **ANYONE WHO HELPS TO SAVE FOOD**
8. Who do you know who is a Fab Food Champion? **ANYONE INCLUDING MYSELF**
9. How much makes up one portion of your five a day? **A HANDFUL**
10. What will you do to 'Waste less, Save more'?

## Fab Food Quiz - level 2

1. Fab Food is part of a bigger project led by Sainsbury's. Fill in the missing word in the project's name. 'Waste **LESS**, Save **MORE**'
2. How many slices of bread are wasted every day in the UK? **24 MILLION**
3. Name two things that affect whether we choose to eat something new. Two from: **SMELL, TEXTURE, CONVENIENCE, LOOK, FAMILIARITY, NAME and COLOUR**
4. Where should you put leftover food at home?
  - **the rubbish bin**
  - **the compost bin**
  - **the fridge**

**ANY OF THE ABOVE – IT DEPENDS ON WHAT IT IS**

5. "By eating all the food we buy we can reduce waste and save money." Explain how this works. **ANY SUITABLE ANSWER THAT EXPLAINS THAT IT MEANS NOT WASTING FOOD THAT HAS BEEN BOUGHT**
6. In the list of 'Persistent Offenders,' which food had the lowest waste score? **EGGS**
7. What is a 'Fab Food Champion'? **ANYONE WHO HELPS TO SAVE FOOD**
8. Name two things a Fab Food Champion should do? Two from a list including such items as: **STORE FOOD WELL, ONLY BUY WHAT YOU NEED, USE UP LEFTOVERS**
9. How much makes up one portion of your five a day? **a) A HANDFUL**
10. What will you do to 'Waste less, Save more'?

## Fab Food Quiz – level 3

1. Fab Food is part of a bigger project led by Sainsbury's. Fill in the missing word in the project's name. 'Waste **LESS**, Save **MORE**'
2. How many slices of bread are wasted every day in the UK? **24 MILLION**
3. What affects whether we choose to eat something new? Give as many factors as you can. Examples from: **SMELL, TEXTURE, CONVENIENCE, LOOK, FAMILIARITY, NAME and COLOUR**
4. With the help of websites like 'Food Rescue,' what could you make with leftover apples? **ANY APPROPRIATE EXAMPLE, SUCH AS APPLE CRUMBLE, APPLE CAKE, APPLE PIE etc**
5. "By eating all the food we buy we can reduce waste and save money." Explain how this works. **ANY SUITABLE ANSWER THAT EXPLAINS THAT IT MEANS NOT WASTING FOOD THAT HAS BEEN BOUGHT**
6. Why should you keep bananas away from other fruit? **THEY RELEASE CHEMICALS WHICH MAKE OTHER FRUIT DETERIORATE QUICKER (This also means that they are useful for helping to ripen under-ripe fruit)**
7. What does a 'Fab Food Champion' do? Examples from a list including such items as: **STORE FOOD WELL, ONLY BUY WHAT YOU NEED, USE UP LEFTOVERS**
8. Name a town which is leading the way in reducing food waste. **SWADLINCOTE, DERBYSHIRE is the pioneer town for this project.**

There is a list of other places at:

[wasteless.savemore.sainsburys.co.uk/whats-happening](http://wasteless.savemore.sainsburys.co.uk/whats-happening)

9. How much makes up one portion of your five a day?  
a) **A HANDFUL**  
c) **150ml**  
d) **80g (IF YOU ARE AN ADULT)**
10. What will you do to 'Waste less, Save more'?

# Food Awareness Reflection Form

What have I learned this week?

---

Name : ..... Class : .....

1. What were the best bits of Food Awareness Week??

.....

2. What did I not enjoy so much?

.....

3. What did I find difficult?

.....

4. Are there ways I can think of, to help me get around those difficulties?

.....

5. What are the two main things I have learned this week about food waste?

.....

6. What is the main thing I have learned about the cost of food waste?

.....

7. What do I think the school should do next to cut down on food waste?

.....

8. What can I do next to cut down on food waste at school or at home?

.....



# Step 4 : Food Waste Audit

**Let's see what we've saved**

**You are well on the way with your Fab Food journey.**

- Your school is full of Fab Food Champions, who have all learned ways to waste less food, and are busily putting them into effect.
- You have an Action Plan up and running, involving children and staff across the school.
- And you have just completed an energising, intensive Food Awareness Week.

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# Fab Food Audit

It is time to give yourself, and the whole school, a massive pat on the back.

It is also time to see what the school has saved as a result of all that activity.  
Is it really wasting less food and saving more money?

This means carrying out a second **Food Waste Audit**, much like the one you began with.

Once you have this second set of data, the children can analyse, reflect and finally report back on what they have learned and what else needs to be done.

There's a simple **Final Report** proforma to help the children compare and present data from the first and the second audits.

There's no need to be so low key this time, but do try to follow the original process as closely as you can. **The Fab Food Pupils' Checklist** is there to help, as is everything you did for the **original audit at Step 1**.

At the end of this second audit, a group of children prepares a final report for the school:

- how much food is now being wasted?
- what percentage of waste has been reduced?
- are there still some problem areas?
- what do they think can be done about them?

They present their final report to the whole school through a celebratory assembly.  
Why not invite parents to come for the presentation?

The school might also want to share news about its Fab Food journey with the local community, via the school website, social media, newsletters and even local news media. .

Perhaps the school would like to invite a special guest to the assembly? Local councillors and council officers, for example, will be really pleased to hear about the school's Fab Food journey ... and may even be able to offer helpful advice about what can happen next.

# Curriculum

## Mathematics:

- addition and subtraction – as part of data collection and reporting (KS1 and 2)
- measurement – through weighing the bags, and practically understanding the processes involved (eg learning that it is good practice to weigh things twice to be sure of an accurate result) (KS1 and 2)
- number – (KS1 and 2) (eg through the practical application of numbers, children begin to understand place value and decimal points, such as 0.4kg being the same as 400g); fractions and percentages, within the recording and reporting process (KS2)
- statistics – as part of the recording and reporting process (KS2, or through simple tally charts at KS1).

## English:

- spoken language (eg presenting findings to the school) (KS1 and 2)
- writing (eg creating labels and instructional texts at KS1 and 2, report writing at KS2).

## Science:

- working scientifically - gathering and recording data, recording findings (KS1 and 2)
- making predictions and suggesting improvements, reporting and explaining results (KS2).

## Design and Technology:

- designing, making and evaluating – designing a method for weighing food waste without touching the food (KS2).

## Computing:

- using technology purposefully to organise, store, manipulate and retrieve digital content (data tables) (KS1)
- using software to collect, analyse, evaluate and present data and information (data spreadsheets) (KS2).

## Geography:

- geographical skills - using a simple plan of the school which shows collection points (KS1 and 2).

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*Save more*

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# Fab Food – Final Report

Name of School : ..... Date :    /    / .....

## Results

Bin location	First Audit Total (kg)	Second Audit Total (kg)	Difference (+ or - kg)
Hall waste: scraped off plates			
Kitchen waste			
Staff room			
Classroom 1			
Classroom 2			
etc			
School Office 1			
Total			
% Reduction			

## Summary of Results

- How much food is now being wasted?...
  - What percentage of food waste has been reduced?...
  - If you held a house or year group competition, who did best and what did they achieve?
  - What are the main things that children have learned from the Fab Food project?
- 

## Next steps

Are there still some problem areas? What do we think can be done about them?

Here are some suggestions for further action. Some of them may work for you, or you may have your own ideas about what's best to do next. Whatever you decide, have a think about who would need to be involved, and when it could happen.

- free fruit choice and storage
- packed lunches from the school
- ways of encouraging less staffroom waste
- any juice, squash and milk issues
- looking again at what is on school menu, especially choices which generate a lot of waste
- pupil surveys to see what's got 'meal appeal' (See **School Meals Pupil Survey**)
- trial menu days to help children experiment with new foods
- allowing more time for lunch
- putting up posters in the dining hall
- talking with staff, particularly catering staff, to see what other ideas they have
- getting parents more involved

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*Save more*

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