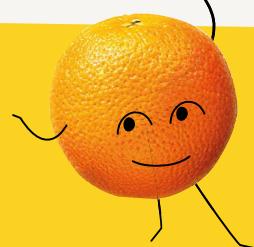


This project was highlighted as one of the top 10 sustainable education innovations globally.

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EDUCATION RESOURCES ON THE TOPIC OF FOOD WASTE

Lesson plans and resources for teachers and workshop leaders.





Department
for Environment
Food & Rural Affairs

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Feedback: Please let us know about your exciting activities at: foodwaste@groundwork.org.uk

This food waste reduction pack for schools has been produced in association with Small Change, Big Difference and Yes to Taste, No to Waste. This pack has been updated, and has an increased focus on food waste prevention.

If you would like to learn more please visit www.smallchangebigdifference.co.uk. If you would like to find out more about food waste collections in your area please visit www.recyclenow.com.

Intellectual property

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TEACHERS' NOTES

1. FOOD WASTE PREVENTION AND HEALTHY EATING

Why is food waste important? Preventing food waste is good for the planet because it saves valuable resources. Methane is released when food rots so preventing waste can prevent this harmful gas being released in the air. Water, land and transport emissions used during the production of the food, are also wasted if food is thrown away.

Food waste prevention key facts:

- › If the total global annual emissions from food waste – some 3.3 billion tonnes – were released by a single country, that nation would be the world's third largest polluter behind China and the United States.
- › 20 million slices of bread are thrown away at home in the UK every day. If we stopped wasting bread, it could do the same for greenhouse gas emissions as planting 5.3 million trees per year.
- › The number 1 wasted food in the UK is potatoes – 714,000 tonnes are thrown away each year by households.
- › It takes 100 buckets of water to produce one loaf of bread.
- › Frozen fruit or veg can be as good for you as fresh fruit/veg. Freezing retains nutrients so fruit/veg lasts much longer.

Why is healthy eating important? Choosing healthy and sustainable food is good for people and good for the planet.

Healthy and sustainable eating key facts:

- › Fruit and vegetables use less energy and water to grow than other food types.
- › Choosing fruit and vegetables has a bigger impact on sustainability than food miles.
- › Beans and pulses count towards your 5 a day.



2. FOOD WASTE RECYCLING

Why is it important? When we recycle food waste, we prevent harmful gasses such as methane from being released into the air. Instead, those gasses can be trapped and turned into renewable energy (anaerobic digestion/AD), or the food can be broken down and turned into compost or plant fertiliser (in vessel composting/IVC).

Food waste recycling key fact:

- › 1 recycled banana peel can produce enough energy to charge 2 smartphones.

What is methane gas? Methane escapes into the air when food rots in landfill. Methane also escapes into the air when coal, oil and natural gas are extracted from the Earth, and is released from cows and other farm animals. Humans put more and more methane into the air every year. This is not good news for climate change: methane is a greenhouse gas, so we need to put less of it into the air to slow down global warming.

HOW TO USE THIS PACK

The pack has been designed as a 5-week project that fits into a half term. However, each lesson could be delivered as a stand alone session.

The pack contains five session plans. Session 4, the campaign event, offers three options depending on school preference. Each session has accompanying resources and they are colour-coded for easy navigation. The resources are divided into two sections. 'Provided as part of this pack' refers to the resources we have provided, which you can print/copy. 'Resources you will need' refers to things teachers will need to source themselves, such as pens and paper etc. Please feel free to share this pack with other teachers and schools; it is freely available and downloadable because our aim is to share learning far and wide.

TOP TIPS FOR TEACHERS

FOOD AUDIT: We recommend measuring plate waste in the canteen over the duration of the project to see if the learning in the classroom impacts behaviour in the canteen. We have provided a template for this. Sometimes it's hard to see a link because pupils don't have control over menu options or portion sizes, but it can offer great discussion points in the classroom and gives insight into the food waste practices in your school.

QUIZ: This is recommended to assess pupil learning and provide a before and after picture, showing the impact of the project and pupil progress. Answers are provided on a separate sheet.

PREZI PRESENTATION: A visual presentation is provided for you to use in the classroom. If the link doesn't work, try a different browser; Chrome, Firefox and Safari are recommended.

EDIBLE/NON-EDIBLE: Throughout the programme, and specifically for lesson 1, ensure that you clearly explain the difference between edible and non-edible food waste to pupils.

- Edible: food that could have been eaten - e.g. plate waste, half-eaten fruit etc.
- Non-edible: food that can't be eaten - e.g. banana skins, egg shells, meat bones etc.

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HOW TO DO THE FOOD WASTE AUDIT

RESOURCES

In this pack

- Food waste audit sheet for pupils

Items you'll need:

- Create 3 simple signs with the word 'Edible'
- 3 signs with the word 'Non-Edible'
- 6 food waste buckets
- Compostable bin liners
- Weighing scales



- 1 Choose six pupils to manage the food waste audit at lunch times – they can be called the 'Food Waste Warriors'. We recommend choosing responsible pupils who are available once a week during a lunch time for at least five weeks in a row. Get them to take turns on a rota to collect food waste from years 4, 5 and 6 (or other years/groups) once a week.
- 2 Allocate an adult to oversee the audit (e.g. a Teaching Assistant or Mid-day Supervisor). The adult should supervise and direct the Food Waste Warriors to collect plate waste from pupils over lunch time, separating the food waste into two bins (marked edible and non-edible) for each year group. Non-edible food waste includes orange peel, banana skins, apple cores, bones etc; edible food waste is anything that could have been eaten. (5 minutes)
- 3 The Food Waste Warriors should set up the food waste bins in the canteen ready for the lunch time audit. (5 minutes)
- 4 Food Waste Warrior should direct the pupils to put their plate waste in the correct edible or non-edible food waste bins. They should be positive, encouraging pupils to prevent food waste. Ensure the Food Waste Warriors have enough time to eat their own lunch. (30 minutes on a rota)
- 5 Once lunchtime is over, the Food Waste Warriors will need to weigh the food waste, using scales, and record it in grams or kilograms on the audit sheet. Food can either be weighed in the tied bin liners, or weigh each bucket with food, then without food, and deduct the empty bucket weight from the full bucket weight. (You can also keep the food waste to look at with the class after lunch.) (5 minutes)
- 6 You can work out the number of meals wasted by assuming the maximum school dinner meal weighs 495g. Divide the total weight recorded by 495g and this will give you the number of meals wasted. Tip: if you're recording in kg, you may need to multiply that by 1000 to turn that into grams first e.g. (weight x1000) / 495g. (5 minutes)
- 7 To build in further numeracy, you could calculate the percentage of food waste. Find out the number of meals served (including canteen and packed lunches). Divide the amount of plates wasted by the total of meals served:
e.g. year 4 had two plates wasted out of 14 plates
$$= 2 \div 14 = 0.14 \times 100 = 14\%$$
Pupils could represent these figures using a graph. (10 minutes)



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FOOD WASTE AUDIT SHEET

WEEK 1	YEAR 4 WASTE (KG)	YEAR 4 NUMBER OF MEALS WASTED	YEAR 5 WASTE (KG)	YEAR 5 NUMBER OF MEALS WASTED	YEAR 6 WASTE (KG)	YEAR 6 NUMBER OF MEALS WASTED
	YEAR 6					
WEEK 2						
WEEK 3						
WEEK 4						
WEEK 5						



PUPIL QUIZ

1. Below are three different plates of food. Each has a different amount of vegetables and fruit. Tick one box under the plate with the amount you think is recommended to eat daily.







2. How many portions of fruit and vegetables should you have a day? (tick one box only)

One

Three

Five

Ten

Don't know

3. What type of food could you eat less of, in order to help the environment? (tick one box only)

Fruit, Veg, Beans and Lentils

Meat

Bread and Rice

4. Which of the three following things can be done to reduce food waste at schools and at home? (tick three boxes only)

a. Use FIFO (first in, first out)

d. Compost suitable leftovers

b. Take correct portions

e. Throw leftovers in the rubbish bin

c. Send all food waste to landfill

f. Only use fruit and vegetables in good condition

6. What gas is released in the air when food goes to landfill?

Don't know

Yes I know and my answer is: _____

7. Draw arrows from each item in the row below to the bin in which they should be disposed of.

Food packaging

Banana skins

Plate leftovers

Chicken bones

Mouldy food



Rubbish Bin



Recycling Bin



Food Waste Caddy

Don't know

8. List three other resources that can be wasted when food is thrown in the bin?
(Tip: think of the food production chain)

a. _____ b. _____ c. _____



PUPIL QUIZ ANSWERS

1. Below are three different plates of food. Each has a different amount of vegetables and fruit. Tick one box under the plate with the amount you think is recommended to eat daily.







2. How many portions of fruit and vegetables should you have a day? (tick one box only)

One

Three

Five

Ten

Don't know

Five or ten are correct (NHS recommend 5 but state 10 are better)

3. What type of food could you eat less of, in order to help the environment? (tick one box only)

Fruit, Veg, Beans and Lentils

Meat

Bread and Rice

4. Which of the three following things can be done to reduce food waste at schools and at home? (tick three boxes only)

a. Use FIFO (first in, first out)

d. Compost suitable leftovers

b. Take correct portions

e. Throw leftovers in the rubbish bin

c. Send all food waste to landfill

f. Only use fruit and vegetables in good condition

6. What gas is released in the air when food goes to landfill?

Don't know

Yes I know and my answer is: Methane and/or carbon dioxide

7. Draw arrows from each item in the row below to the bin in which they should be disposed of.

Food packaging Banana skins Plate leftovers Chicken bones Mouldy food



Rubbish Bin



Recycling Bin

Plate leftovers



Food Waste Caddy

Chicken bones

Mouldy food

Don't know

8. List three other resources that can be wasted when food is thrown in the bin?
(Tip: think of the food production chain) **Answers can include any of the following:**

Land use, energy use, transport, water use, labour.



Lesson 1: Why is food waste important?

MAIN MESSAGES

- What is food waste?
- How much food we are wasting.
- Why preventing food waste is important.
- What we are wasting in the food production chain.
- How can we recycle food?
- Each child makes a pledge to reduce food waste.

KEY WORDS

Waste, prevention, reduction, recycle, methane, edible, non-edible, climate change, environment, compost, energy, food production chain, labour, pledge.

RESOURCES

Provided as part of this pack:

1. Food waste investigation sheet
2. Food production chain picture card set (each set has six cards)
3. Home/school books

You will need:

1. Clipboards x 15
2. Plastic sheeting/bin bag x1
3. Plastic gloves
4. Weighing scales
5. Cleaning materials
6. Pencils/pens

PREZI PRESENTATION LINK

<https://tinyurl.com/rdhkcqr>

WORKSHOP LENGTH: 1.5 hours

CURRICULUM LINKS



- Science: working scientifically- setting up simple practical enquiries, making systematic and careful observations, taking accurate measurements using standard units, using a range of equipment, gathering and recording data to help answer questions, make predictions for next steps, reporting and presenting findings, including causal relationships and explanations of results; rocks: recognise that soils are made from organic matter; Living things and their habitats: environments can change and that this can sometimes pose dangers to living things, living things are classified into groups including microorganisms. Literacy: speaking and listening; group discussion and interaction.
- Geography: understanding the actions of processes (such as human changes to the environment and environmental threats/ damage/ changes) and change over time. PSHE: learn about the wider world and the interdependence of communities within it; develop a sense of social justice and moral responsibility and begin to understand that their own choices and behaviour can affect local, national or global issues.
- Design & Technology: understand and apply the principles of a healthy and varied diet; understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.
- Numeracy: estimating units of mass/ weight and comparing to actual results; statistics (gathering data); converting units of measure; decimals and percentages.
- Learning outside the classroom.

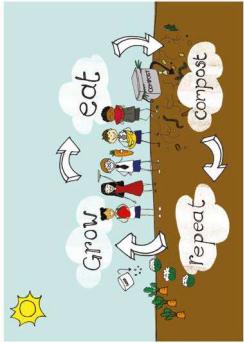


Prior to lunch

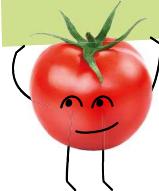
Before you deliver this workshop, make sure you have a look at the food waste audit and the pupil quiz. It would be useful to do the quiz and start the audit before delivering the first workshop, so you can see the change in pupil learning and a tangible difference in food waste (by doing the weekly audit).

Time	Main learning points	Activity	Resources
30 minutes	<p>Learn what food waste is and the difference between 'edible' and 'non-edible'</p> <p>Investigate the type of food being wasted and the quantity thrown away</p>	<p>Introduce the topic of food waste (use the teachers' notes at the start of the pack for tips and facts). OUTDOOR ACTIVITY: INVESTIGATING FOOD WASTE FROM LUNCH FOOD BINS</p> <ol style="list-style-type: none"> Collect a bin with food from the canteen (if you're doing the food waste audit, use bins you've used in the audit). Take the bin outside into the playground. Organise pupils into pairs. Allow one clipboard, one food investigation sheet and one pencil per pair: each pair will record findings on the food waste investigation sheet, with one being the 'recorder', recording the findings, and the other being the 'investigator' who reports back. <p>> <u>Questions to ascertain pupil knowledge:</u></p> <p>What is food waste? Why do you think it's important to reduce food waste? What happens to food waste if it goes in the general bin? What happens to food waste when it is recycled?</p> <p>3. Food weight estimation Get the pupils to form a circle to observe and estimate the weight of food waste from lunch time. Pass around each bin containing food waste so the investigators can estimate the weight. Each recorder should then fill in the investigator's estimate on the investigation sheet. Investigators should then take it in turns to weigh the food waste, with each recorder noting the actual weight on the investigation sheet.</p> <p>4. Tip out the food waste onto a tarpaulin or plastic sheet (if you don't have one, you can use bin bags taped together and weighted down to the ground); encourage pupils to observe and discuss the three main types of food wasted (e.g. bread, veg, fruit etc) and record their findings on the investigation sheet.</p> <p>> <u>Questions to ask pupils:</u></p> <p>What do 'edible' and 'non-edible' mean? Which food waste items could we prevent being wasted? (edible) Are there any food waste items that would be hard to avoid wasting? (non-edible) (Refer to teachers' notes for an explanation of edible and non-edible.)</p> <p>(N.B. Ensure the food waste is then put in the kitchen's food waste bin.)</p>	<p>You will need:</p> <ul style="list-style-type: none"> - Clipboards x 15 - Plastic sheeting/bin bag x 1 - Plastic gloves - Weighing scales - Cleaning materials - Pencils/pens <p>In this pack:</p> <ul style="list-style-type: none"> - Food investigation sheet x 15 (download from this pack)

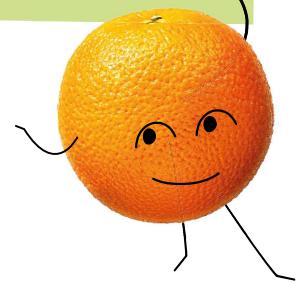
Time	Main learning points	Activity	Resources
15 minutes	Understand the food production chain	<p>Know what is wasted in the food production chain from farm to fork (e.g. fuel, energy, packaging, water etc). CLASSROOM ACTIVITY: THE FOOD PRODUCTION CHAIN</p> <p>1. Start Prezi: https://tinyurl.com/rdhkcqr.</p> <p>2. Show video to introduce the environmental impact of food waste, and highlight that food waste can happen at different points along the food chain. Follow this link: https://www.youtube.com/watch?v=0eqxgyZNn0l (Pause the video at 0:52 seconds to discuss).</p> <p>> <u>Ask two key questions:</u> What are we wasting if we throw food away? How is energy used in food production? OR How is water used in food production?</p> <p>> <u>Write this question on the board:</u> If food is thrown away, what other resources can be wasted along the food production chain? Ask pupils to come and write answers on the board. (Answers: Land, water, energy, animal feed, transport, labour etc.)</p> <p>3. Put one set of food chain picture cards on each table. Ask pupils to decide as a group what order their pictures should be in for the food production chain. Pupils should order the cards and discuss their answers.</p> <p>(Development opportunity: If doing a wall display in the school, add the picture cards to it.)</p>	<p><u>You will need:</u></p> <ul style="list-style-type: none"> - Prezi link: https://tinyurl.com/rdhkcqr - Food production chain cards

Time	Main learning points	Activity	Resources
15 minutes	Understand: <ul style="list-style-type: none"> The effects of food waste The importance of recycling food waste How food waste is recycled How compost is made How compost is used 	<p>CLASSROOM ACTIVITY: FOOD WASTE RECYCLING</p> <ol style="list-style-type: none"> Explain that unavoidable food waste can be recycled to make compost and energy. Show video, following the link below: Show video: How is Food Waste Recycled? In vessel composting (Recycle Now) https://www.youtube.com/watch?v=Td30khKYc5Y57 (57 seconds). <p>> Focus questions to ask pupils:</p> <p>What is the gas produced by landfill sites called? Why is this gas bad for the environment? What happens to food if we recycle it? Where is compost used?</p> <ol style="list-style-type: none"> Show Prezi presentation graphic: 'Grow, Eat, Compost, Repeat'. Discuss the graphic with pupils. 	<p>In this pack:</p> <ul style="list-style-type: none"> - Prezi: https://tinyurl.com/rdhkccqr - Requires YouTube to access videos - Slides 1 – 4 & video
15 minutes	Take action to prevent food waste	<p>HOME/SCHOOL BOOK</p> <ol style="list-style-type: none"> Explain that: <ul style="list-style-type: none"> pupils should make their first pledge towards preventing food waste which is to be completed at home and/or school pupils should conduct the homework interview with a parent/carer a parent/carer should sign each page books must be brought back to school for the next lesson Look at the four pledges on pledge 1 (prevent food waste). Discuss each one, then encourage pupils to tick one or more and sign and date the progress and pledge sheets. Offer rewards stickers if possible. <p>Teachers may appoint two pupils as 'Pledge Monitors' to count pupil pledges achieved. Pledge Monitors may also remind pupils to bring home/school books back each week.</p>	<p>In this pack:</p> <ul style="list-style-type: none"> - Home/school book (1 per pupil to download) - Prezi: https://tinyurl.com/rdhkccqr - pledges slides
10 minutes	Consolidate and assess main learning points	<p>Review main learning points</p> <p>> Questions to ask pupils:</p> <p>How does food waste affect the environment? Why is it important to prevent food waste? What resources in the food production chain is wasted if we waste food? Why is it important to recycle food waste?</p>	

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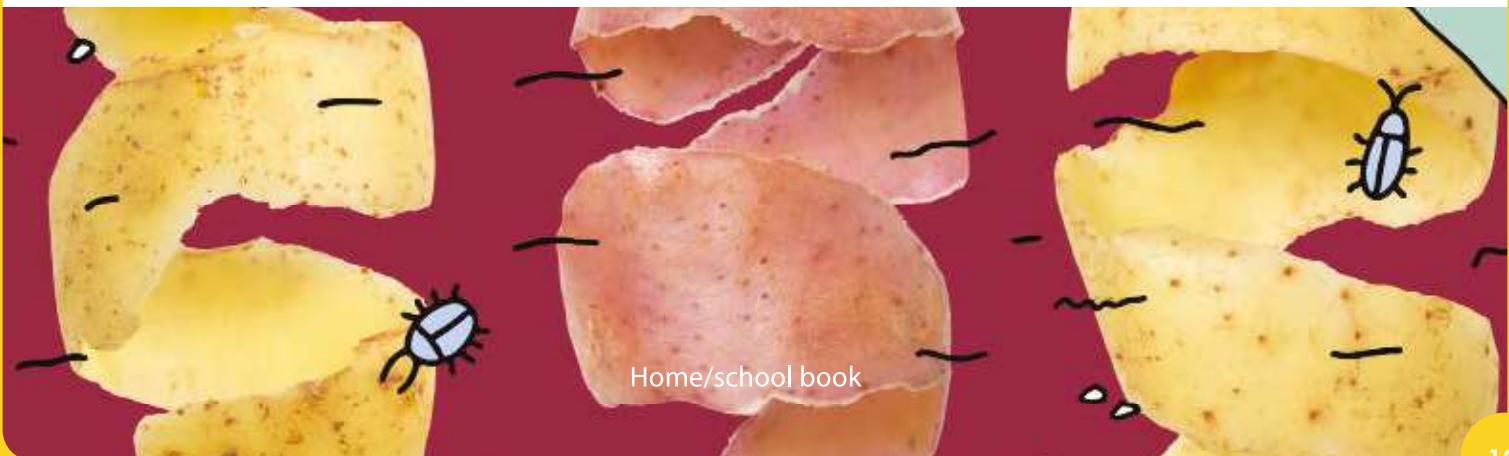


HOME/SCHOOL BOOK

Name _____

Age _____

Class _____



PROGRESS



Your progress with the food waste project:

ACTIVITY	TICK WHEN COMPLETED	STICKER REWARD
PLEDGE 1 PREVENT FOOD WASTE		
HOMEWORK INTERVIEW		
PLEDGE 2 FOOD WASTE ACTION		
DEAR DIARY...		



PLEDGE 1: PREVENT FOOD WASTE

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What can YOU do to take action on food waste?

Make a pledge below by putting a tick in the box

Choose one action from the list below

Make sure it's something you can actually do



I will waste less food
at school dinner time



I will tell friends and family
to waste less food



I will waste less food
at home

Date I made pledge: _____

Date I completed my pledge: _____

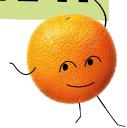
Signed by parent/carer when complete: _____

HOMEWORK: INTERVIEW

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**Interview an adult at home about food waste.
Ask them the following questions:**

"We've been learning about food waste in school.
Can I ask you a few questions please?"

1. We waste 6.5 million tonnes of food every year, 4.5 million of which is edible. We're not talking egg shells or chicken bones... We mean the last few bites from your plate that you couldn't quite manage, or your bread crusts, or potato peelings – all stuff which could have been transformed into something delicious. Those 4.5 million tonnes are enough to fill 38 million wheelie bins! Can you guess how many double decker buses that fills?

a. 750 b. 750,000 c. 100,000

2. Did you know that food waste can cost you up to £60/month = £720 a year! What would you do with that money if it wasn't wasted through food?

-
3. How do you currently get rid of food waste?
-
-

4. Will you join me in my efforts to reduce food waste by making a pledge?

Yes No

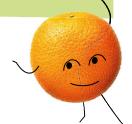
(Question 1: Answer: b.)

PARENT/CARER PLEDGE

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I am the parent/carer of _____
I pledge to reduce food waste at home by:

1. Getting a food waste caddy

Yes No Already have one

2. FIFO – First in first out

Ordering my cupboard and fridge with oldest food first

Yes No

3. Using the correct portion sizes

Yes No

4. Other:
-
-



Date I made pledge: _____

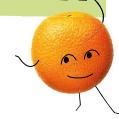
Date I completed my pledge: _____

Signed by pupil when complete: _____

PLEDGE 2: FOOD WASTE ACTION

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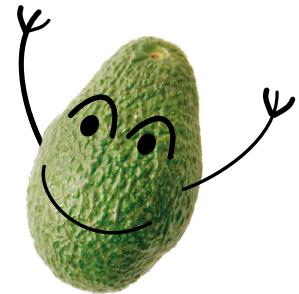
What can YOU do to fight food waste?

Make a pledge below by putting a tick in the box.

Choose one action from the list below

Make sure it's something you can actually do.

We will check if you've achieved your pledge next week.



Choose correct portion sizes to prevent food waste.



Use first in first out. Order your cupboard and fridge with oldest food first.



Compost your food where you can (at home). Ask a parent or carer if you have a food waste collection.



Organise food recycling/composting in school.

Date I made pledge: _____

Date I completed my pledge: _____

Signed by parent/carer when complete: _____

DEAR DIARY...



I have been busy with the food waste project over the last few weeks, here's an update:

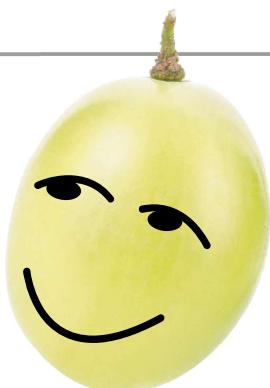
My favourite thing has been...

Completing my pledge was...

At home I have been...

Bye for now!

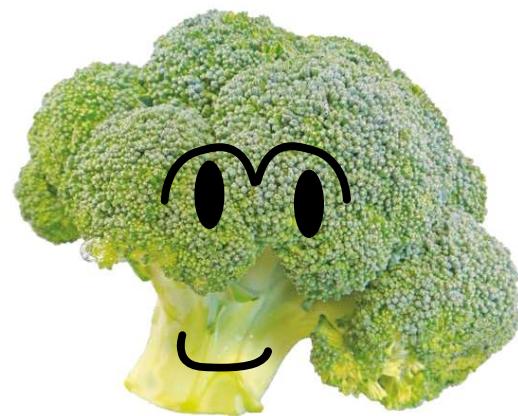
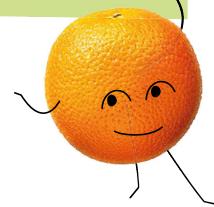
Yours,



TASTE IT



DON'T WASTE IT





FOOD WASTE INVESTIGATION SHEET

School:

Date:

Investigator name:

Recorder name:

> How much does today's edible food waste weigh?

Estimate the weight of food waste from lunch time. Pass around a bin containing food waste. Estimate the weigh and fill in the table below. Now weigh the food waste and record the actual weight below.

	YEAR 4	YEAR 5	YEAR 6
Our estimate (kg)			
Actual weight (kg)			
Number of meals wasted: 1 meal = 495g Calculation: <u>(weight x 1000)</u> 495g			

Note: 495g is equivalent to a large school meal

> What are the main types of food wasted?

a.

b.

c.

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FOOD PRODUCTION CHAIN CARDS

Print and cut out the picture cards below. Mix them up and put one set of cards on each table. Decide as a group what order the pictures should be in for the food production chain. Pupils should put the cards in order and discuss their answers.



A seed is planted



The seed grows and the plant is looked after and watered

LABOUR



Tomatoes form
They are picked when they are ripe

LABOUR, HEAT, WATER



Each tomato is graded and put in a box ready for sale

LABOUR, MACHINE FUEL



The tomato is taken by lorry to a supermarket

LABOUR, MACHINE FUEL



The tomato is taken home to eat

LABOUR, LORRY FUEL

CAR FUEL



Lesson 2: Preventing food waste

MAIN MESSAGES

- How we can reduce food waste.
- How to use leftovers to avoid food waste.
- Each child makes a food waste reduction pledge.

KEY WORDS

Leftovers, reduction, prevention, FIFO (first in first out),
fridge shelfie, portion, date labels, wonky, smoothie,
climate change, environment, caddy, reduce, recycle,
compost, energy, labour, pledge.

RESOURCES

Provided as part of this pack:

1. Food waste audit sheet
 2. Snakes & ladders board game
 3. Diamond 9 game mat and 9 top tip cards
- KEY WORDS
- Leftovers, reduction, prevention, FIFO (first in first out),
fridge shelfie, portion, date labels, wonky, smoothie,
climate change, environment, caddy, reduce, recycle,
compost, energy, labour, pledge.

PREZI PRESENTATION LINK

<https://tinyurl.com/rdhkqcqr>

You will need:

- Dice x 15
- Counters x 30
- Fruit and vegetables for smoothies
- Smoothie maker or hand blender
- Extension lead (if required)
- Water
- Jugs
- Spoon x 1
- Cups x 30 (compostable if possible)
- Compostable bin bag x 1
- Cloth & tissues

WORKSHOP LENGTH: 1.5 hours

CURRICULUM LINKS

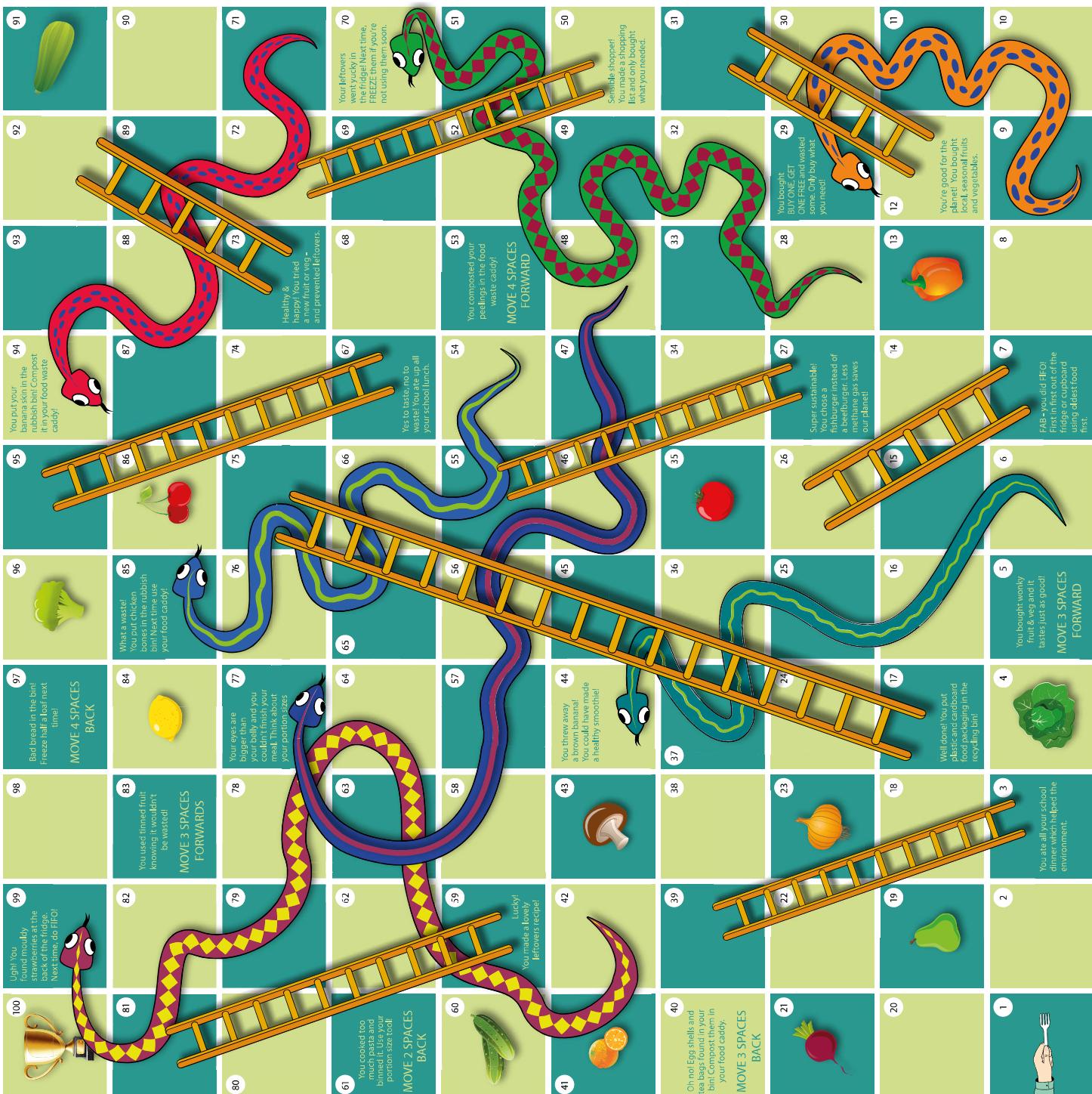
- Science: make predictions for next steps, reporting and presenting findings, including causal relationships and explanations of results; rocks: recognise that soils are made from organic matter; living things and their habitats: environments can change and that this can sometimes pose dangers to living things; living things are classified into groups including microorganisms. Literacy: speaking and listening; group discussion and interaction.
- Numeracy: statistics (gathering data); converting units of measure; decimals and percentages.
- PSHE: develop a sense of social justice and moral responsibility and begin to understand that their own choices and behaviour can affect local, national or global issues.
- Design & Technology: understand and apply the principles of a healthy and varied diet; understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed; prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.
- Geography: understanding the actions of processes (such as human changes to the environment and environmental threats/damage/changes) and change over time.



Time	Main learning points	Activity	Resources
10 minutes	Know whether food wasted is increasing or decreasing across different year groups	If taking part in food measuring, start the session by sharing and comparing findings from the lunch time plate waste weighing for weeks 1 and 2. Record findings on the food waste audit sheet. To extend numeracy skills, calculate the percentage of food waste per year group and record this on a bar chart.	In this pack: - Food waste audit sheet (see page 6)
20 minutes	Understand how we can prevent food waste	<p>> Questions to ask pupils to review key learning from lesson 1:</p> <p>How does food waste affect the environment? Why is it important to prevent food waste? What resources are wasted in the food production chain if we waste food? Why is it important to recycle food waste?</p> <p>Show rest of video to show how we can prevent food waste at home: https://youtu.be/0eqxgvZNn0I?t=52 (Start the video at 0:52, playing it to the end).</p> <p>> Key questions to ask pupils: How can we avoid throwing away food that could be used? What can we do with that food?</p> <p>ACTIVITY: SNAKES AND LADDERS</p> <p>Encourage pupils to play the snakes and ladders food waste game in pairs. Explain how the game is played and that pupils should read each square carefully to learn important food waste prevention tips.</p> <p>After the game, ask pupils to share what tips they've learnt from the game to reduce food waste. Discuss possible answers and write them on a flip chart.</p>	<p>You will need:</p> <ul style="list-style-type: none"> - Snakes and ladders boards x 15 (provided in this pack) - Dice x 15 - Counters x 30

Time	Main learning points	Activity	Resources
10 minutes	<p>Consolidate learning on</p> <ul style="list-style-type: none"> • Why preventing food waste is important • How food waste can be prevented 	<p>> Key questions to ask pupils:</p> <p>How can we avoid throwing away food that could be used? How can we reduce food waste? How can we reuse leftover food?</p> <p><u>ACTIVITY: FOOD WASTE WARRIOR CHALLENGE</u></p> <p>Give one game mat and set of 9 top tips cards to each table. Get pupils to discuss the 9 top tips cards and debate in groups which is the most important. Using the game mat, pupils should then order the cards by importance, putting the most important at the top and least important at the bottom.</p> <p>Top tips cards</p> <ol style="list-style-type: none"> 1. Make a shopping list and only buy what you need 2. Take a fridge selfie (picture of the fridge before going shopping) 3. Take the correct plate portion size for your appetite 4. Use your leftovers to make another dish 5. Freeze your leftovers 6. Check date labels 7. Do FIFO – sort your fridge, by order of first in, first out 8. Buy wonky fruit or vegetables 9. Use a food waste caddy <p>(Development opportunity: cards can be stuck on a template and added to a wall display).</p>	<p>In this pack:</p> <ul style="list-style-type: none"> - Diamond 9 game mat - 9 top tips cards

Time	Main learning points	Activity	Resources
20 minutes	<p>Learn how to use leftovers by making smoothies</p> <ul style="list-style-type: none"> Experiential learning, applying knowledge by doing Challenge pupils to make a smoothie using only fruit and veg Highlight that using soft or bruised fruit or veg uses leftovers Highlight that using frozen fruit uses leftovers Highlight that using wonky fruit or veg prevents food waste and is cheaper Highlight that tinned fruit and veg lasts longer Highlight that apples can be chopped and frozen Highlight where the food has come from, it can be sourced by looking at food labels Highlight what date labelling means – explain the difference between ‘use by’ and ‘best before’ dates 	<p>ACTIVITY: MAKING SMOOTHIES</p> <ol style="list-style-type: none"> Show video before making smoothies: The Extraordinary Life and Times of Strawberry (1:00) https://www.youtube.com/watch?v=uTaFYF1nA4c. Explain that we're avoiding food waste by using surplus fruit and vegetables to make smoothies. Lay out smoothie ingredients. As a class, look at the fruit and veg smoothie ingredients. Discuss the types of date labels used and what they mean, highlighting how they can lead to confusion, e.g. the ‘use by’ date tells when food might no longer be safe to eat. The ‘best before’ date tells you that the food won’t be at its best after that date, but it can still be eaten. Make smoothies with groups of pupils, encouraging each group to choose their own ingredients, using surplus fruit, e.g. <ul style="list-style-type: none"> Fruit left over from school healthy snacks Frozen fruit/veg Wonky fruit/veg Tinned fruit in own juice (sugar juices are not healthy) Encourage pupils to taste smoothies made from surplus fruit. Reinforce that delicious tasting smoothies have been made from fruit that would have otherwise been thrown away. <p><i>NB: Any non-edible food waste should be recycled in a food waste caddy.</i></p>	<p>You will need:</p> <p>For smoothies:</p> <ul style="list-style-type: none"> -Fruit & vegetables (at least 6 types) -Wonky fruit -Tinned fruit -Fresh fruit/veg -Compost bags/food waste caddy for non-edible food waste -Cloth & tissues -Smoothie maker -Extension lead (if needed) -Jug -Spoons x 6 -Cups x 30 for tasting
10 minutes	<p>Apply knowledge, and take action on new knowledge</p> <p>Ensure action is rewarded</p>	<ol style="list-style-type: none"> Get each pupil to make a pledge in their home/school book to use leftovers, using the knowledge gained from the smoothie making activity. Plenary - review main learning points if needed. Follow up next lesson: Ensure pledges are checked and pupils are rewarded (with stickers or your usual reward). 	<p>In this pack:</p> <ul style="list-style-type: none"> -Prezi: https://tinyurl.com/rdhkccqr -Home/school books -Stickers or reward options



> How can we avoid throwing away food that could be used?
We suggest using one board game between two pupils.

You will need: counters and dice.
We suggest using one board game between two pupils.



SNAKES & LADDERS

TASTE IT



DON'T WASTE IT



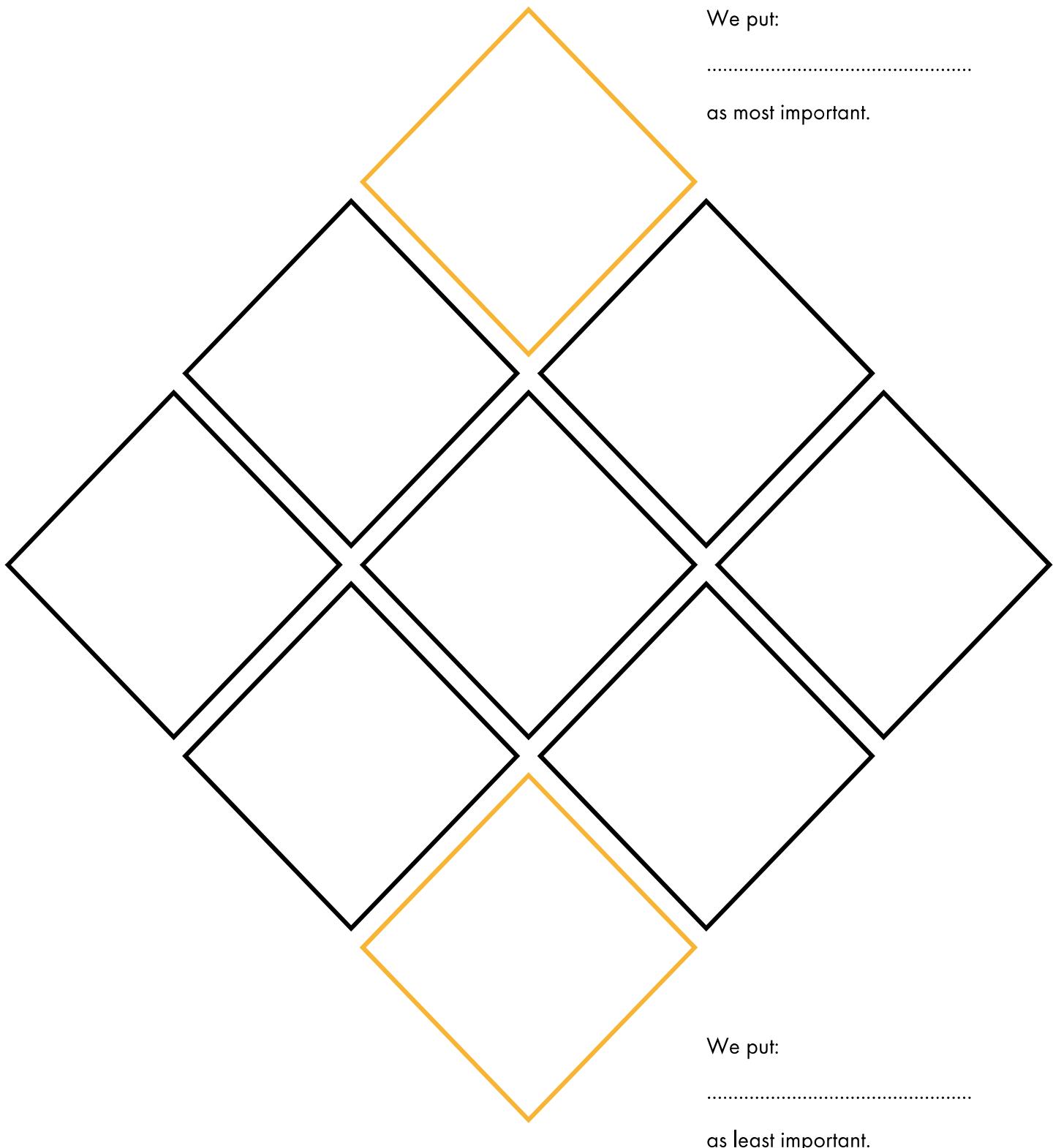
TOP TIPS CARDS





DIAMOND 9

Discuss the 9 top tips cards in groups and decide which is the most important. Use the diamond 9 game map to order the cards by importance, putting the most important at the top and least important at the bottom.





Lesson 3: Planning and promoting the campaign

MAIN MESSAGES

- Taking responsibility for food waste.
- What is a campaign and what is involved in planning a campaign?
- Creating and designing a campaign to promote food waste action.

KEY WORDS

Campaign, promote, advertise, audience, caddy, recipe, leftovers, surplus, template, role, persuasion, banner, placard, flyer.

RESOURCES

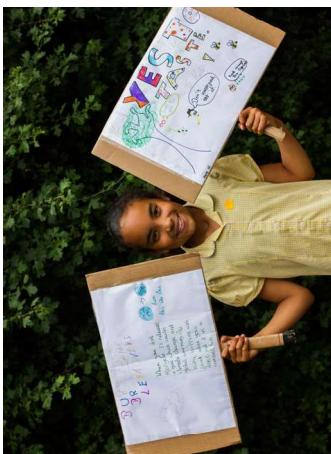
Provided as part of this pack:

1. Campaign planning template
2. Vocabulary mats (food waste theme)
3. Example persuasive letter to parents/ carers

PREZI PRESENTATION LINK

<https://tinyurl.com/rdhkcqr>

WORKSHOP LENGTH: 1.5 hours



CURRICULUM LINKS

- Science: working scientifically: make predictions for next steps, reporting and presenting findings, including causal relationships and explanations of results.
- Literacy: noting and developing initial ideas; using a range of pronouns; persuasive techniques (repetition, rhetorical questions, presenting facts, using superlatives, exaggeration and flattery); range of sentences (clause structure and complex sentences), understanding why they are constructed the way they are; précising longer passages; using a wide range of devices to build cohesion within and across paragraphs; planning and writing a letter; proof read for spelling and punctuation errors; speaking & listening; group discussion and interaction.
- Geography: understanding the actions of processes (such as human changes to the environment and environmental threats/damage/changes) and change over time.
- PSHE: Learn about the wider world and the interdependence of communities within it; develop a sense of social justice and moral responsibility and begin to understand that their own choices and behaviour can affect local, national or global issues.
- Art: engage, inspire and challenge pupils, equipping them with the knowledge and skills to experiment, invent and create their own works of art and design, using a range of materials and techniques.
- Numeracy: statistics (gathering data, Carroll diagrams, frequency tables, pictograms and bar charts); converting units of measure; decimals and percentages.



Time	Main learning points	Activity	Resources
5 minutes	Review and recap previous learning	If you're doing the weekly food waste audit, use this section to work with the 'Food Waste Warriors' to share food waste weight results and update data on the food waste audit sheet and bar chart if you're doing one (see food waste audit guidance). If you did lesson 2, you could also use the start of this lesson to review pledges. Discuss any pledges achieved.	In this pack: - Food waste audit sheet - Food waste audit guidance
5 minutes	Understand what a campaign is Learn how to plan a campaign: what, why, when, where, who, how?	<p>1. Display campaign plan template on the board for pupils to see.</p> <p>2. Define what a campaign is and what the message is that we are looking to promote. A campaign is a planned set of activities by people wanting to influence others to make a positive change.</p> <p>3. Pupils can choose from a number of campaigns:</p> <p>1. Love your leftovers: smoothie making Use surplus fruit and vegetables to create smoothies and distribute them to parents/carers at the school gates.</p> <p>2. Reducing food waste: create a recipe book Parents/carers pledge to use one leftover item and send in their recipes to create a recipe book. Parents/carers and pupils make dishes with leftovers for people to taste at a school food fair.</p> <p>3. Recycling food waste – use your caddy Hold a food waste funfair – encourage the use of food waste caddies, offer free caddies to parents/carers at the school gates, and play exciting interactive games to learn about food waste recycling: e.g. to caddy or not to caddy and bling your caddy.</p> <p>4. Write the rationale in the WHY box in campaign plan. Ensure all pupils know the rationale for the choice of school campaign.</p>	Prezi link: https://tinyurl.com/rdhkcqr -Campaign planning template

Time	Main learning points	Activity	Resources
20 minutes	Campaign planning: WHEN/WHERE/ WHO/HOW	<p>1. Discuss WHEN AND WHERE the campaign will take place, and add to the campaign planning template.</p> <p>2. Decide WHO AND HOW.</p> <p>To ensure pupils feel ownership of the campaign, offer the class an opportunity to reflect on the items below, give feedback and then vote to get an outcome.</p> <p>Points for the class to vote on:</p> <ul style="list-style-type: none"> - Name of campaign event? - Who should we invite to the campaign? - What job roles need doing? - How many pupils do we need for each job? - Who does what job? - Do we invite parents/carers to volunteer at the event? - Can the Parent–Teacher Association help in any way? - Shall we invite the local council education officer (to give out information and free food caddies)? - What should the schedule for the day be? (Encourage pupils to create the schedule themselves.) What activities should there be? 	<p>In this pack:</p> <ul style="list-style-type: none"> - Campaign planning template
5 minutes	Review campaign targets before moving on to designing the campaign	Ensure all pupils know the Why? What? How? Where? and When? of the school campaign.	<p>In this pack:</p> <ul style="list-style-type: none"> - Campaign planning template

Time	Main learning points	Activity	Resources
40 minutes	<p>Advertise the campaign</p> <ul style="list-style-type: none"> Gather key facts Write a letter using persuasive writing techniques Design posters Design flyers 	<p>1. Distribute the vocabulary and persuasive writing mats and emphasise the use of persuasive language and techniques.</p> <p>> <u>Focus questions to ask pupils:</u> Who is the audience?</p> <p>What information needs to be on the poster/flyer?</p> <p>2. Organise pupils into groups to complete some of the following tasks:</p> <ol style="list-style-type: none"> Design posters/banners/placards Task two pupils to write a persuasive letter of invitation to parents/carers Plan a presentation for an assembly Write a page for the school website Write a piece for social media Design information flyers to use for the campaign Write a song/rap Design a video (e.g. stop-motion animation, video report) <p>Note that some of the above may not be relevant depending on the campaign.</p>	<p>In this pack:</p> <ul style="list-style-type: none"> Vocabulary and persuasive writing mats x 6 (1 per table) <p>You will need:</p> <ul style="list-style-type: none"> A3/A4 paper for design work A4 paper for writing letters Coloured pens
5 minutes		<p>Summarise the main learning points, with an overview of lesson 3 and a campaign reminder</p>	<p>In this pack:</p> <ul style="list-style-type: none"> Campaign planning template

TEACHER TIPS FOR PREPARING FOR THE CAMPAIGN

- Caddy campaign: contact your local council in advance to obtain free food waste caddies and see if a council representative can attend
- Recipe book: give out the recipe template to pupils with their homework this week
- Recipe book: inform the Parent-Teacher Association so they can make dishes and give recipes or help
- Smoothies: order compostable taster cups
- Smoothies: contact your local council to see if they can offer a smoothie bike
- Contact your local shops/supermarkets in advance to see if they can support your campaign day by providing surplus fruit

TASTE IT

DON'T WASTE IT



CAMPAIGN PLANNING

WHAT?

WHY?

WHEN & WHERE?

WHO?

HOW?

TASTE IT

DON'T WASTE IT



Personalisation:
Using words like '**we**', '**you**', '**our**' and '**us**' to make your audience think you are talking only to them

Clear Structure:

- Clear **introduction** (give your reason for writing and state your opinion in the introduction)
- Paragraphs giving **reasons** and **evidence** to support your view
- Clear **conclusion**

PERSUASIVE WRITING TECHNIQUES

Facts & Statistics:

Using truthful information to back up a point, e.g. '95% of pupils feel...'

Emotive language: e.g. using **three adjectives** or phrases

Repetition:
'Do you remember,
do you...?'
'If...., if...., then....'

Slogan:

Create a snappy phrase:
 • keep it short
 • make it memorable
 by using rhyme or alliteration

Rhetorical questions:

Using questions that don't need an answer to get the audience to think, e.g. '**Would you...?**', '**Could you...?**'

Complex sentences linked with connectives like:

- so
- consequently
- as a result of
- accordingly
- moreover
- as a consequence of
- then
- so as
- an outcome of
- because
- therefore

TASTE IT

DON'T WASTE IT



VOCABULARY

**food waste
prevent
prevention
fight
sustainable
environment
landfill
methane
 CO_2
climate change
global warming**

**compost
pledge
recycle
reuse
reduce
caddy
fridge shelfie
FIFO (first in, first out)
campaign
event**

**fruit
vegetables
bruised
soft
frozen
freeze
wonky
taste
half-eaten
tinned**

TASTE IT

DON'T WASTE IT



PERSUASIVE LETTER TO PARENTS/CARERS EXAMPLE

Dear Parents/Carers,

You are warmly invited to our food waste campaign event. Our aim is to prevent food waste and encourage food recycling.

EVENT NAME:

WHEN:

WHERE:

Did you know that in the UK, the average family of four can save just over £60 per month by reducing their food waste - that's £720 per year!

Food is something that unites. It's something that is lovingly grown and nurtured for months before it arrives in our shops. It's a social activity, a comfort, an essential, and a luxury.

And yet in UK households we waste 6.5 million tonnes of it every year, 4.5 million of which is edible. We're not talking egg shells or chicken bones... We mean the last few bites from your plate that you couldn't quite manage, or your bread crusts, or potato peelings – all stuff which could have been transformed into something delicious.

Those 4.5 million tonnes are enough to fill 38 million wheelie bins, or 90 Royal Albert Halls. It's a lot, but we have the power to change this.

We look forward to welcoming you at our exciting event.

Kind regards,

Year [5]



Lesson 4a: Food waste campaign/event

FRUIT SMOOTHIES

ACTIVITY SUMMARY

- The purpose of a campaign day or school event is to give pupils the opportunity to apply their learning. They can take real-life action on the things they've learnt. The campaign is also a chance to share the learning with the wider school community.
- Choosing a campaign that is relevant to your school context will ensure engagement and legacy. We have given three example school campaigns, but you can adapt these or create your own.
- In this example campaign event, pupils will create fruit smoothies from leftover and surplus fruit and share them with parents/carers at the school gates.

RESOURCES

Provided as part of this pack:

- Posters
- Pledge card
- Mini quiz
- Food allergy notice
- Top tips

You will need:

- Surplus fruit
- Smoothie blender
- Serving cups (for smoothies)
- Food waste caddy
- Compostable bin bags
- A table
- Cloths

WORKSHOP LENGTH: Half a day (afternoon recommended)

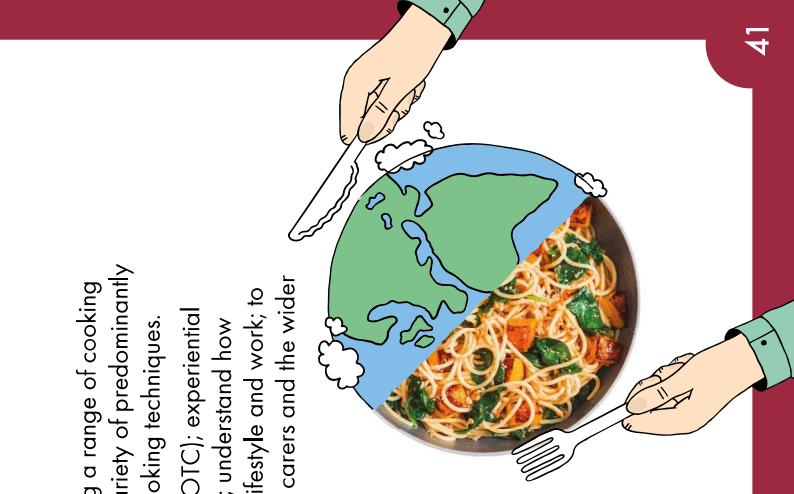
CURRICULUM LINKS



- predominantly savoury dishes using a range of cooking techniques; prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.
- Learning Outside the Classroom (LOTC); experiential learning through direct experience; understand how experiences affect our behaviour, lifestyle and work; to identify ways of engaging parents, carers and the wider community.

Main Learning Points

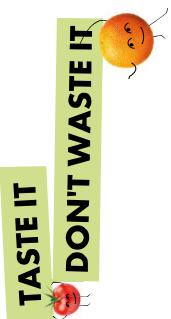
- Planning ahead
- Following instructions
- Working as a team
- Communication
- Design & Technology: design: use research and develop design criteria to inform designs fit for purpose, aimed at particular individuals or groups; generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design; make: select from and use a wider range of tools and equipment to perform practical tasks; evaluate: investigate and analyse a range of existing products; evaluate their ideas and products against their own design criteria and consider the views of others to improve their work; potential to research key designers from around the world; technical knowledge: understand and use mechanical systems in their products (link to smoothie bike, for example, gears, pulleys etc.); cooking and nutrition: understand and apply the principles of a healthy and varied diet; understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed; prepare and cook a variety of



Time	Activity	Resources
2.5 hours	<p>ACTIVITY: PUPIL-LED FOOD WASTE EVENT: CREATE FRUIT SMOOTHIES</p> <p>Create smoothies from surplus fruit and share them with parents/carers at the school gates.</p> <ol style="list-style-type: none"> Set up a stall at the school gates - carry a table outside and place it near the school gates where parents/carers pick up their children. Use a gazebo if you have one to protect pupils and parents/carers from the weather, and take cloths for spillages. Use posters made in previous lessons to decorate the stall, or print out the posters provided (including the food allergy notice). Make fruit smoothies either at the gates or in advance and keep chilled*. Use fruit that was surplus (and would have otherwise gone to waste), for example, fruit left over from break time, supermarket wonky fruit and veg boxes, or surplus fruit donated by a local greengrocer. It may be worth talking to your local greengrocer or shop and explaining the project, to see if they will donate any surplus produce (pupils could also be encouraged do this). You could have three different types of surplus fruit e.g. 'wonky', 'frozen', or 'squashed'. This will raise awareness of some of the different ways to prevent food waste. Use three types of fruit per smoothie to avoid fruit overload (e.g. banana, strawberry and apple), then top up with water. Put the fruit into different bowls to display to parents/carers, labelling the bowls 'wonky' 'frozen' and 'squashed'. Ladle fruit into a smoothie maker to create smoothies at the stall or in advance. Serve smoothies to parents/carers in small taster cups [tip: you can get compostable cups from here: https://www.enviropack.org.uk/compostable-products]. Ensure all parents/carers and pupils who taste a smoothie take a flyer home (created by pupils in lesson 3), and ensure they make their own pledge (see the pledge template provided). 	<p>In this pack:</p> <ul style="list-style-type: none"> - Posters - Food allergy notice - Pledges - Signs to use for fruit <p>You will need:</p> <ul style="list-style-type: none"> - Blender (for smoothies) - Serving cups (for smoothies) - Surplus fruit (preferably sourced locally)

*Tip: freeze fruit in advance as smoothies taste much better cold.

Time	Activity	Resources
	<p>We recommend engaging the pupils throughout. Ways to do this are outlined in lesson 3, and include:</p> <ul style="list-style-type: none"> • Pupils making flyers to go home to parents/carers on the day • Pupils writing letters home to parents/carers to invite them to the campaign day • Pupils making banners/placards to campaign for food waste prevention (pupils could also use these with chants to attract attention on the day) • Pupils deciding where the stall should be located, who to invite, and what fruit should be used (they can also help source the fruit by approaching local shops) • Ensure all pupils have a role to play for the campaign day. Different roles can include: <ul style="list-style-type: none"> - Fruit monitors - Queue monitors - Smoothie servers - Smoothie makers - Pledge or mini quiz collectors - Flyer distributors - Campaigners (placard holders) <p>If you have a large class, consider having two stalls so that all pupils have a role on the day.</p>	
30 minutes	<p>Clear up</p> <p>Make sure you have enough helpers to pack up and clean up after the event.</p> <p>To measure success, you could count the number of parent/carer pledges made on the day, count the number of smoothies given out, or count the number of people who attended the event. Make sure to share this with the class and/or wider school.</p> <p>Tip: your local authority may be able to attend and give out food waste caddies to parents/carers who are eligible for food waste collections from their homes.</p>	



Lesson 4b: Food caddy campaign/event

FOOD CADDY

ACTIVITY SUMMARY:

- The purpose of a campaign day or school event is to give pupils the opportunity to apply their learning. They can take real-life action on the things they've learnt. The campaign is also a chance to share the learning with the wider school community.
- Choosing a campaign that is relevant to your school context will ensure pupil engagement and legacy. We have given three example school campaigns, but you can adapt these or create your own.
- In this example campaign event, pupils will play games, quiz pupils and parents/carers about which items go in a food waste caddy, and distribute food caddies* to parents/carers at the school gates. (Caddies should be supplied by your local council).

*Remember to request these in advance from your local council.

RESOURCES

Provided as part of this pack:

- Posters
- Pledge card
- Bin signs (Food waste caddy, Recycling, and General waste)
- Picture cards x 10 (for caddy game)
- Caddy quiz

- Table

You will need:

- Food waste caddies (large and small) - supplied by your local council*
- Food waste liners (if supplied by your local council)
- Art materials to 'bling' a caddy
- See-through bottle/jar showing items for food waste caddy
- Small bins/buckets x 3

WORKSHOP LENGTH: Half a day (afternoon recommended)

CURRICULUM LINKS



Main Learning Points

- Design & Technology: design: use research and develop design criteria to inform designs fit for purpose, aimed at particular individuals or groups; generate, develop, model and communicate their ideas through discussion.
- Learning Outside the Classroom (LOTC); experiential learning through direct experience; understand how experiences affect our behaviour, lifestyle and work; to identify ways of engaging parents, carers and the wider community.

- To plan ahead
- To follow instructions
- To work as a team
- Communication



Time	Activity	Resources
2.5 hours	<p><u>ACTIVITY: PUPIL-LED FOOD WASTE EVENT: FOOD CADDY</u></p> <p>Quiz about food waste, 'bling your caddy' and distributing free caddies to parents/carers at the school gates.</p> <p>> REMEMBER TO REQUEST CADDIES FROM YOUR LOCAL AUTHORITY IN ADVANCE!</p> <p>1. Food waste caddies</p> <p>Caddies are usually available free of charge from your local council, and some also offer free caddy liners and information flyers about what goes in caddies. Your council may have a Waste Education Officer who can provide caddies, attend your event and give out information (give them lots of notice). Some councils will come and deliver a school assembly on food waste. Be aware that food waste is not collected by some councils or from all properties, so please check your council's food waste policy beforehand.</p> <p>2. Food caddy game: 'TO CADDY OR NOT TO CADDY'</p> <p>Print a set of the picture cards (1 set of 10 cards). Choose a location for the game with enough space for a queue of pupils. Set up the three bins/buckets labelled 'Food waste caddy', 'Recycling' and 'General waste'. Give a set of picture cards to pupils manning the stall. Parents/carers or other pupils should place or throw the picture cards into the correct bin. Pupils then record the points scored. The caddy game can be played with event attendees (parents/carers and pupils) or in the classroom with other pupils.</p> <p>In the resource section, you will also find a quiz version of the caddy game; simply print out caddy quiz sheets. Pupils can ask event attendees which bin they think each item should go in. Attendees' answers are recorded on the sheet so pupils can let them know if they're correct or not.</p> <p>3. Food waste jar</p> <p>Display compost and food waste in a bottle/jar that is half-filled with compost/earth with the top half filled with food waste (e.g. banana skins, peelings, bread, egg shells, tea bags, coffee grains etc). This jar shows the different stages of food decomposing and is a good visual prop on a stall.</p> <p>4. Bling your caddy</p> <p>Set up art materials on a table for pupils to 'bling' their caddies. Invite event attendees (parents/carers or other pupils) decorate a food waste caddy using the art materials. This activity can be run as a competition or you could encourage communal caddy decoration.</p> <p>5. On the day</p> <ul style="list-style-type: none"> • Set up a stall at the school gates - carry a table outside and place it near the school gates where parents/carers pick up their children. Use a gazebo if you have one to protect students and event attendees from the weather. • Use posters made in previous lessons to decorate the stall, or print out the posters provided. • Ensure all parents/carers take an information flyer home on how to prevent and reduce food waste - even if their food waste is not collected (information flyers may be available from the council). 	<p>In this pack:</p> <ul style="list-style-type: none"> - Posters - Pledges (print around 100 or however many parents/carers you feel will attend) - Bin signs - Picture cards {for caddy game} - Caddy quiz <p>You will need:</p> <ul style="list-style-type: none"> - Art materials (optional) - Food waste caddies (from council) - Food waste liners (if supplied by local council) - Small bins/buckets x 3 (for caddy game) - See-through bottle/jar showing items for food waste caddy (optional) - Table 

Time	Activity	Resources
	<p>We recommend engaging the pupils throughout. Ways to do this are outlined in lesson 3, and include:</p> <ul style="list-style-type: none"> • Pupils making flyers for parents/carers to take home on the day • Pupils writing letters to parents/carers to invite them to the campaign day • Pupils making banners/placards to campaign for food waste prevention (pupils could also use these with chants to attract attention on the day) • Pupils deciding where the stall should be located, who to invite, and how to allocate the prize caddy • Pupils decorating the stall • Ensure all pupils have a role at the campaign day. Different roles can include: <ul style="list-style-type: none"> - Caddy game monitors - Caddy decorating monitors - Queue monitors - Caddy quiz monitors - Pledge collectors - Campaigners (placard holders) <p>If you have a large class, consider having two stalls so that all pupils have a role on the day.</p>	
30 minutes	<p>Clear up</p> <p>Make sure you have enough helpers to pack up and clean up after the event.</p> <p>To measure success, you could count the number of pledges made on the day, count the number of caddies given out, or count the number of people who attended the event. Make sure you share this with the class and/or wider school.</p>	



Lesson 4c: Recipe book campaign/event

RECIPE BOOK

ACTIVITY SUMMARY

- The purpose of a campaign day or school event is to give pupils the opportunity to apply their learning. They can take real-life action on the things they've learnt. The campaign is also a chance to share the learning with the wider school community.
- Choosing a campaign that is relevant to your school context will ensure pupil engagement and legacy. We have given three example school campaigns, but you can adapt these or create your own.
- In this example campaign day, pupils will create a 'leftovers' recipe book that can be distributed to the wider school community.

RESOURCES

Provided as part of this pack:

1. Recipe template
 2. Posters
 3. Pledge card
 4. Food allergy notice
 5. Mini quiz
 6. Top tips
- Leftover dishes - donations from parents/carers
 - Plates
 - Cutlery
 - Napkins
 - A table
 - Cloths
 - Food waste caddy
 - Compostable caddy bags

WORKSHOP LENGTH: Half a day (afternoon recommended)



CURRICULUM LINKS

- Design & Technology: design: use research and develop design criteria to inform designs fit for purpose, aimed at particular individuals or groups; generate, develop, model and communicate their ideas through discussion; cooking and nutrition: understand and apply the principles of a healthy and varied diet; understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed; prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques; prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.

- You will need:
- Leftover dishes - donations from parents/carers
 - Plates
 - Cutlery
 - Napkins
 - A table
 - Cloths
 - Food waste caddy
 - Compostable caddy bags

Main Learning Points

- To plan ahead
- To follow instructions
- To work as a team
- Communication



Time	Activity	Resources
2.5 hours	<p>ACTIVITY: PUPIL-LED FOOD WASTE EVENT: RECIPE BOOK</p> <p>Create a leftovers recipe book to share with the wider school community and offer samples of surplus food dishes at the school gates.</p> <p>> REMEMBER TO GIVE PARENTS/CARERS PLENTY OF NOTICE!</p> <ol style="list-style-type: none"> The key to this event is the preparation. Give out the recipe template to parents/carers, and encourage them to submit their recipe ideas. Remember recipes should use leftovers e.g. leftover bread to make breadcrumbs, leftover veg to create a soup. Reach out to the wider school community and encourage recipes from kitchen staff, teachers, the head, parents/carers, pupils etc. Ask parents/carers to create their dishes and bring them in for the campaign day. Try to ensure at least five different dishes for the stall. Set up a stall at the school gates - carry a table outside and place it near the school gates where parents/carers pick up their children. Use a gazebo if you have one to protect pupils and event attendees from the weather, and take cloths. Use posters made in previous lessons to decorate the stall, or print out the posters provided (including the food allergy notice). Place dishes using leftovers donated by parents/carers on the stall, and serve these to other parents/carers and pupils to raise awareness. Tip: remember to take pictures of the dishes that were made before they're dished out! Ensure all parents/carers and pupils who taste some food take a flyer home (created by pupils in lesson 3), and ensure they make their own pledge (using the template provided). Give out recipe templates to parents/carers at the school gates, and ask them to write their favourite recipes (ensuring they use one leftover food item in their recipe). Add these to your pile of recipes for the book. After the event, compile all recipes, along with some pictures of dishes from your campaign day and create a booklet. Use the 'top tips' to put in the book, and pupils' pictures where possible. Print and distribute the recipe book to parents/carers and the local community. 	<p>In this pack:</p> <ul style="list-style-type: none"> - Recipe template - Posters - Pledge card - Food allergy notice - Mini quiz - Top tips <p>You will need:</p> <ul style="list-style-type: none"> - Leftover dishes - donations from parents/carers - Plates - Cutlery - Napkins - A table - Cloths - Food waste caddy - Compostable caddy bags

Time	Activity	Resources
	<p>Ensure the event is pupil-led</p> <p>We recommend engaging the pupils throughout. Ways to do this are outlined in lesson 3, and include:</p> <ul style="list-style-type: none"> • Pupils making flyers to go home to parents/carers on the day • Pupils writing letters to parents/carers to invite them to the campaign day • Pupils taking a recipe template home for their parents/carers to complete and return for the recipe book • Pupils deciding on a name for their leftovers recipe book • Pupils making banners/placards to campaign for food waste prevention (pupils could also use these with chants to attract attention on the day) • Pupils deciding where the stall should be located, who to invite, and what leftovers dish they will make for the day • Ensure all pupils have a role to play on the campaign day. Different roles can include: <ul style="list-style-type: none"> - Recipe monitors - Queue monitors - Quiz monitors - Food servers - Pledge collectors - Campaigners (placard holders) <p>If you have a large class, consider having two stalls so that all pupils have a role on the day.</p>	
30 minutes	Clear up	<p>Make sure you have enough helpers to pack up and clean up after the event.</p> <p>To measure success, you could count the number of pledges made on the day, count the number of recipes received, or count the number of people who attended the event. Make sure you share this with the class and/or wider school.</p>



MINI QUIZ

True or False?

- Bruised bananas can be used in cooking. TRUE / FALSE
- Leftover pasta cannot be frozen. TRUE / FALSE
- Preventing food waste saves money. TRUE / FALSE
- Mouldy food can go in the compost bin. TRUE / FALSE

What gas is released into the air when food goes to landfill?

Methane

Carbon Dioxide

Oxygen



MINI QUIZ

ANSWERS

True or False?

- Bruised bananas can be used in cooking TRUE / FALSE
- Left over pasta cannot be frozen TRUE / FALSE
- Preventing food waste saves money. TRUE / FALSE
- Mouldy food can go in the compost bin TRUE / FALSE

What gas is released into the air when food goes to landfill?

Methane

Helium

Oxygen

We're going to 'love our leftovers'!

We sometimes have
(food name)

left over at home and we pledge to:

- Freeze it for later
- Re-use it in another meal
- Recycle in a caddy



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Name:

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Name:



SMOOTHIE TOP TIPS

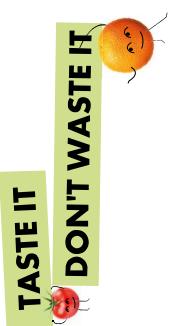
- You can make a 'breakfast smoothie' by adding oats
- Smoothies are a good way to try fruit and veg you don't think you will like
- Smoothies count towards your 5-a-day!
- Smoothies are a great way to use up frozen, wonky and leftover fruit and veg
- Chop up fruit that is about to go off and freeze it. It lasts longer!
- Fruit and vegetables use less water and energy when growing than other food types



SMOOTHIE TOP TIPS

- You can make a 'breakfast' smoothie by adding oats
- Smoothies are a good way to try fruit and veg you don't think you will like
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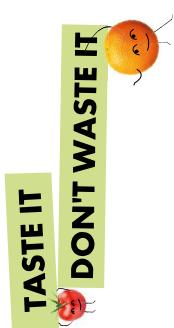
FROZEN





SQUASHED







**Please inform
us of any food
allergies**

TASTE IT

DON'T WASTE IT



RECIPE TEMPLATE

RECIPE NAME



INGREDIENTS



SERVINGS



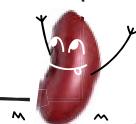
THIS RECIPE REDUCES
FOOD WASTE BY...



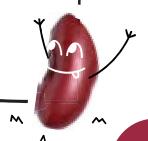
METHOD



MADE BY



DRAWING/PHOTO OF YOUR RECIPE





THE CADDY QUIZ

To caddy or not to caddy?

Look at each item in the left-hand column and tick the box under the correct bin in which it should be placed. This activity can be done in pairs.

	FOOD CADDY 	GENERAL RECYCLING 	GENERAL WASTE
Teabags 			
Plastic milk bottle 			
Plate scrapings 			
Mouldy Bread 			
Vegetable peelings 			

To caddy or not to caddy?

	FOOD CADDY	GENERAL RECYCLING	GENERAL WASTE
Eggshells 			
Oil or lard 			
Banana or orange peel 			
Chicken bones 			
Tin cans 			

General recycling: plastic milk bottle, tin cans

General waste: oil or lard (pour oils in a sealable bottle or container to avoid leaks)

Food caddy: tea bags, plate scrapings, mouldy bread, vegetable peelings, eggshells, banana or orange peel, chicken bones, small quantities of oil and fat

THE CADDY GAME

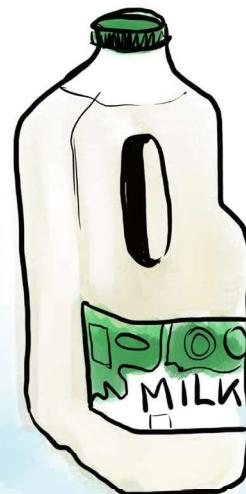
Print and cut these pictures to use in the caddy game for the food caddy campaign.

To caddy or not to caddy?



TEABAGS

To caddy or not to caddy?

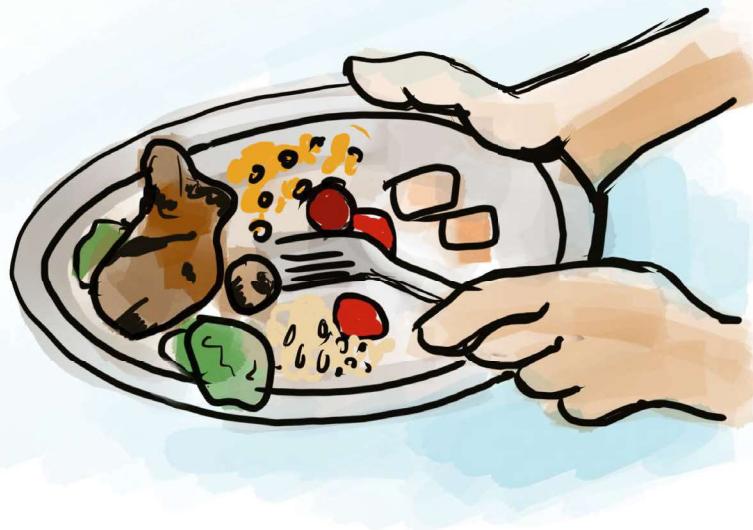


PLASTIC MILK BOTTLE

THE CADDY GAME

Print and cut these pictures to use in the caddy game for the food caddy campaign.

To caddy or not to caddy?



FOOD SCRAPINGS

To caddy or not to caddy?



MOULDY BREAD

THE CADDY GAME

Print and cut these pictures to use in the caddy game for the food caddy campaign.

To caddy or not to caddy?



VEGETABLE PEELINGS

To caddy or not to caddy?



EGG SHELLS

THE CADDY GAME

Print and cut these pictures to use in the caddy game for the food caddy campaign.

To caddy or not to caddy?



OIL OR LARD

To caddy or not to caddy?



ORANGE OR BANANA PEEL

THE CADDY GAME

Print and cut these pictures to use in the caddy game for the food caddy campaign.

To caddy or not to caddy?



CHICKEN BONES

To caddy or not to caddy?



TIN CANS





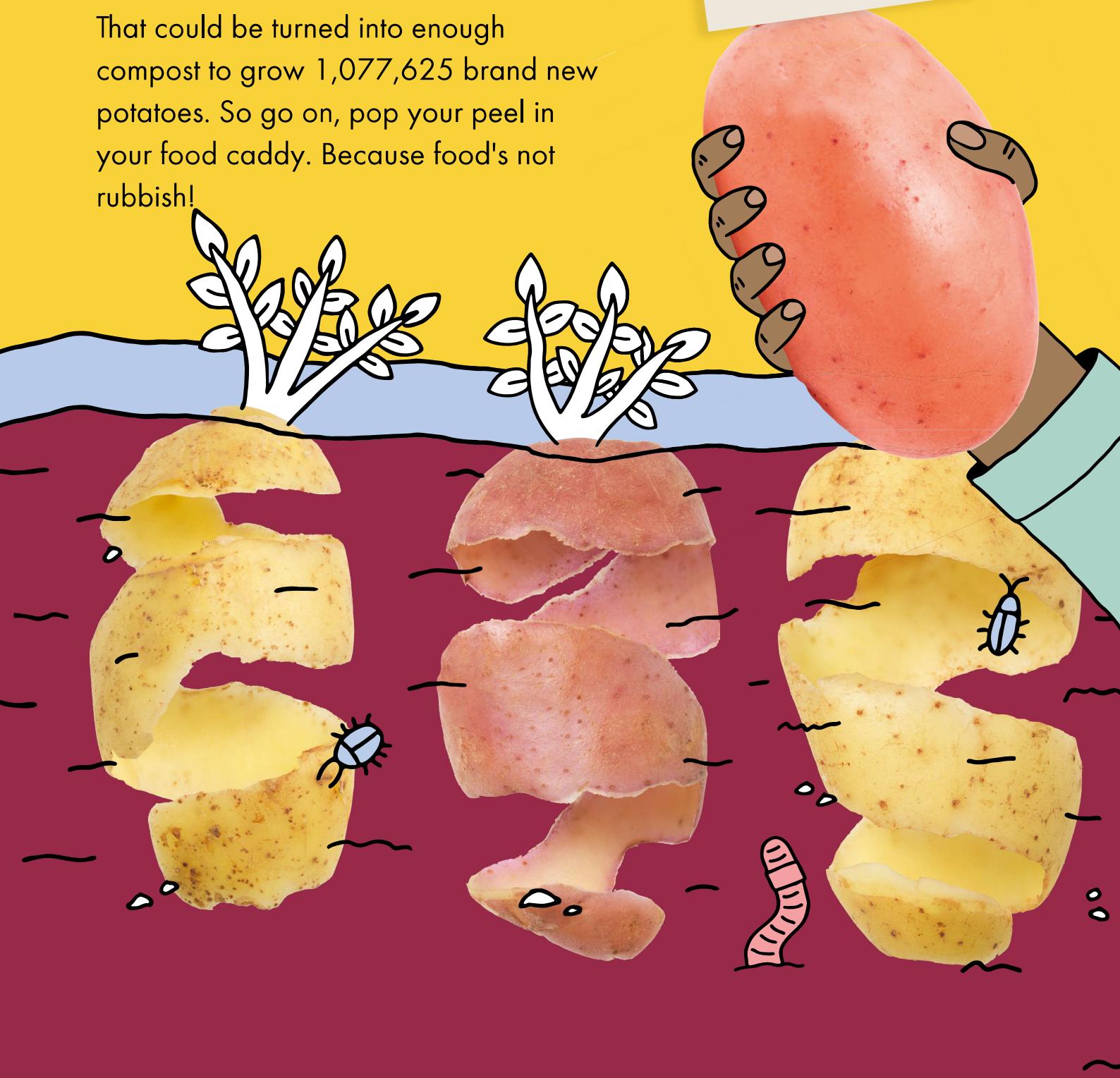


If everyone in the UK

RECYCLED JUST ONE POTATO

PEEL

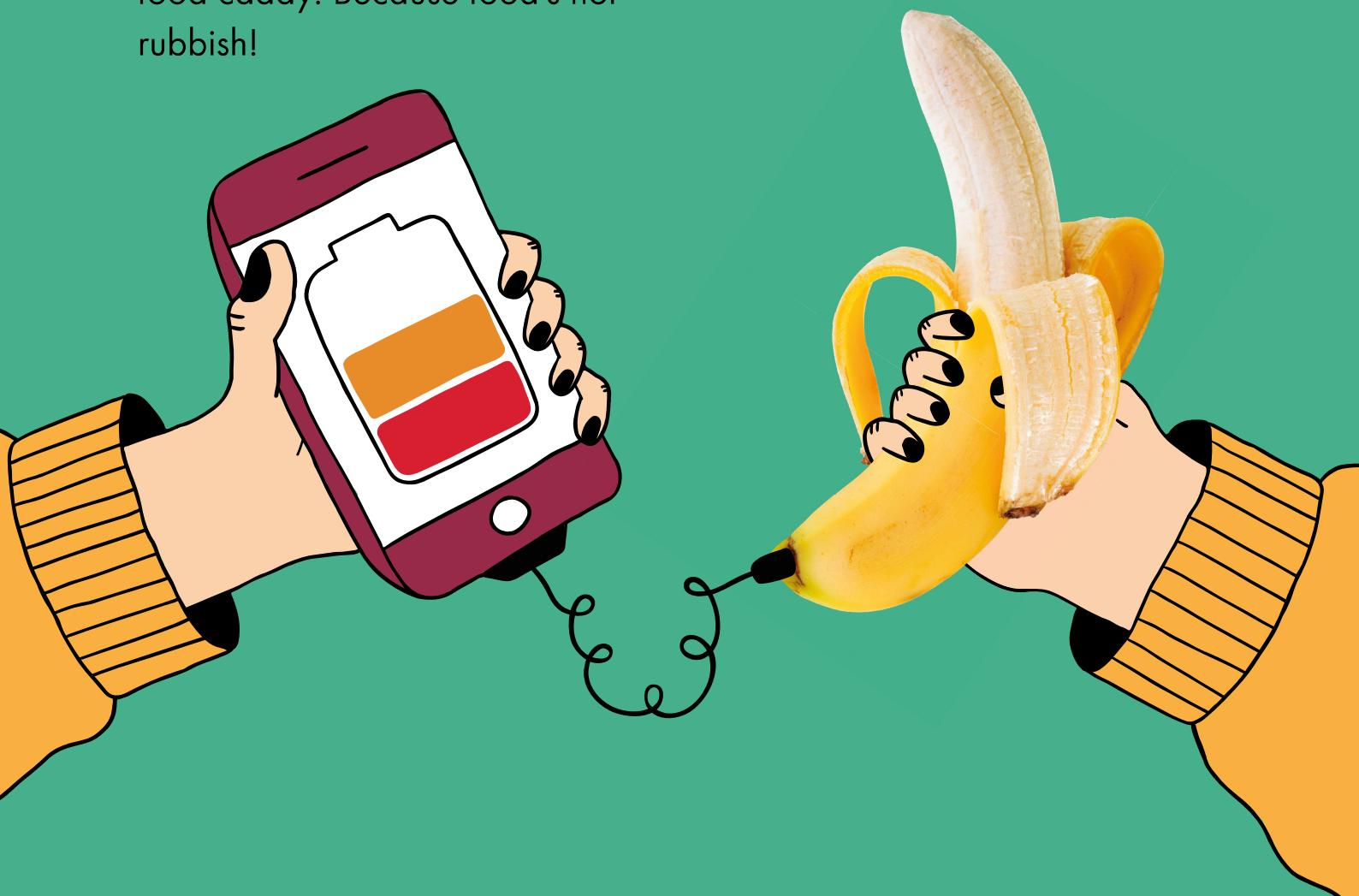
That could be turned into enough compost to grow 1,077,625 brand new potatoes. So go on, pop your peel in your food caddy. Because food's not rubbish!



If everyone in the UK

RECYCLED ONE BANANA SKIN TODAY

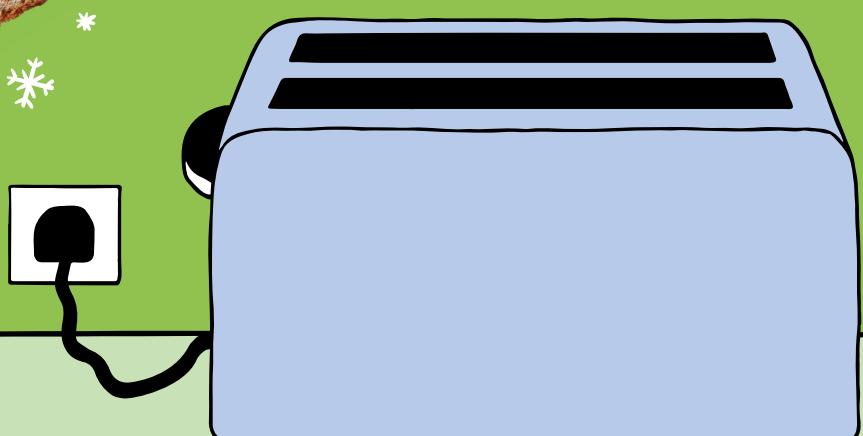
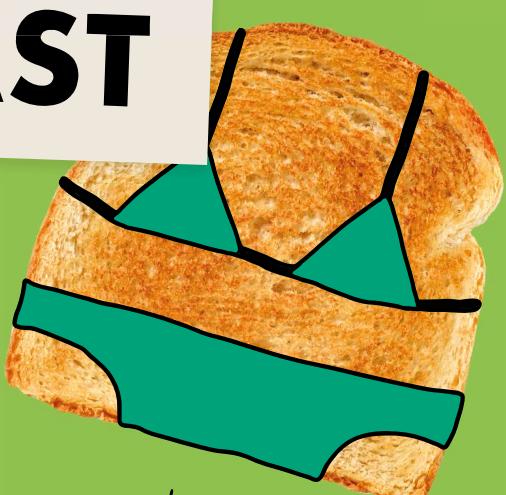
We could turn that into enough energy to charge 134,162,000 mobile phones. Go on, pop it in your food caddy. Because food's not rubbish!



If everyone in the UK

FROZE THEIR BREAD TO MAKE TOAST

We could save 20,000,000 slices from the bin every day. So go on, just pop it straight from the freezer into the toaster. Because food's not rubbish.



TASTE IT DON'T WASTE IT

Lesson 5: Share learnings

MAIN MESSAGES

Evaluate and share learning.

- Has our food waste reduced at school and at home?
- How have we prevented food waste?
- Review campaign results and pledges
- Create a food waste action plan

KEY WORDS

Review, pledge, audit, increase, decrease, edible, behavioural change, action plan, highlights.

RESOURCES

Provided as part of this pack:

1. Final quiz
2. Pupil certificate
3. Action plan template
4. Home/school books (diary page)
5. Food waste audit sheet

You will need:

Flip-chart paper

PREZI PRESENTATION LINK

<https://tinyurl.com/rdhkcqr>

WORKSHOP LENGTH: 1.5 hours



CURRICULUM LINKS

- Science: gathering and recording data to help answer questions, make predictions for next steps, reporting and presenting findings, including causal relationships and explanations of results; rocks: recognise that soils are made from organic matter; Living things and their habitats: environments can change and that this can sometimes pose dangers to living things, living things are classified into groups including microorganisms.
- Geography: understanding the actions of processes (such as human changes to the environment and environmental threats/damage/ changes) and change over time.
- ICT: use a variety of software i.e. Excel to create and edit bar charts.
- PSHE: learn about the wider world and the interdependence of communities within it; develop a sense of social justice and moral responsibility and begin to understand that their own choices and behaviour can affect local, national or global issues.
- Literacy: writing for different purposes (diary entry); writing in the first person; speaking and listening; group discussion and interaction.
- Numeracy: estimating units of mass/weight and comparing to actual results; statistics (gathering data, Carroll diagrams, frequency



Time	Main learning points	Activity	Resources
10 minutes	Take an active part in reducing avoidable food waste	Final review of pledges Do a 'hands up' for pledge 1 and then for pledge 2 and count the numbers, giving out stickers/rewards. Do a 'hands up' for parent/carer pledges met/achieved.	- Home/school books
10 minutes	Determine whether Y4-6 edible food waste is increasing/decreasing or staying the same Understand the changing edible food waste results over the course of the project	Food waste audit If you're doing the food waste audit, share the results and discuss with pupils. <u>Key questions to ask pupils:</u> How have the results changed over time? When was the highest number of meals wasted? Why do you think this was? When was the lowest number of meals wasted? Why do you think this was? How do you think we could reduce edible food waste at school to zero meals? Note down answers/comments.	- Food waste audit sheet - Food waste audit guidance
5 minutes	Reinforce learning and food waste messages	Watch video 'Food Waste Footprint' https://youtu.be/IoCVrkcaH6Q (3:15 mins) (You may want to pause the video half way at 1:21 seconds for discussion.)	- YouTube to access videos
20 minutes	Plan future behavioural change regarding food waste at home and at school	Draw out conclusions to create a 3-point action plan with simple things the school can continue beyond the project. <ul style="list-style-type: none"> Discuss actions that pupils can realistically achieve and decide as a class which actions are the most important (either use voting or the diamond 9 game mat used in lesson 2) <ul style="list-style-type: none"> Discuss how often to review the action plan Discuss where to display the action plan 	<u>In this pack:</u> - Action plan template

Time	Main learning points	Activity	Resources
15 minutes	Assessment of knowledge, attitudes & habits in the areas of: • Food waste prevention • Food waste recycling	1. Review prior learning. 2. Conduct final quiz.	- Final quiz x 30
5 minutes	Review action plan	Discuss any new observations from quiz to add to action plan.	Add to action plan
20 minutes	Discuss and share highlights of participation and learning	1. Share photos from the lessons and campaign event. 2. Encourage pupils to discuss the highlights and their favourite activities/moments, then write a diary entry in their home/school books.	- Photos - Home/school books (diary page)
5 minutes	Celebration of learning	1. Congratulate the class for their hard work done on learning. 2. Give out certificates – plus a reminder that changing our food habits is for life and that it is important to keep our pledges. 3. Give out surplus food (fruit) and play music to add a celebratory feel.	In this pack: - Individual and/or class certificate

TASTE IT

DON'T WASTE IT



FOOD WASTE ACTION PLAN

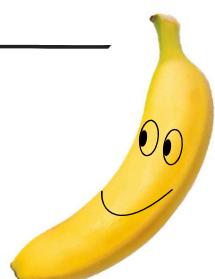
AT SCHOOL

-
-
-
-
-
-
-

AT HOME

-
-
-
-
-
-
-

School name:



TASTE IT



DON'T WASTE IT



THIS IS TO CERTIFY THAT

completed the
TASTE IT DON'T WASTE IT
workshops and is now a fully fledged
FOOD WASTE WARRIOR

Don't forget to keep up with your pledges!

Portion sizes



FIFO



Recycle food at home



Recycle food at school



Waste less food at school



Waste less food at home



TASTE IT

DON'T WASTE IT



CASE STUDIES

WHOLE SCHOOL ENGAGEMENT



> LINKING WITH YOUR CATERING COMPANY / KITCHEN STAFF:

This pack is for education practitioners, but there are similar packs for kitchen staff.

Guardians of Grub was developed by WRAP and is aimed at empowering professionals from across the Hospitality and Food Service sector (HaFS) to reduce the amount of food thrown away in their establishments. It is about making simple, low-cost changes to the way food is bought, prepared, and served that have waste reduction in mind.

A suite of free materials has been produced for the Guardians of Grub campaign. These include information posters and how-to guides, and a free calculator to track the amount of food being wasted and see the changes being made.

Join the Guardians of Grub and develop your passion to make a difference by completing the free **Cost Saving Skills Course** - a 15-minute introduction to how to take action, hear from the sector and access all the free tools to get started.

We want to feed people, not bins. But we need to work together to make real change happen, and by using the tracking tools in the kitchen and measuring plate waste, schools can work together to see the change happen on the ground; as well as measure the improvements in costs and weight.

You can sign your school catering up to www.guardiansofgrub.com and tell us what you are finding out at guardiansofgrub@wrap.org.uk and follow us on social media #GuardiansOfGrub as well as our channels on [Facebook](#) and [Instagram](#)



TASTE IT



DON'T WASTE IT



CASE STUDIES

> LINKING WITH YOUR CATERING COMPANY/KITCHEN STAFF:

Caterlink, School catering company



1 Why did you get involved in this project?

At Caterlink we are passionate about cooking fresh, local food and serving nutritious meals to children every day, and we hate to see any of it go to waste. We believe that reducing the amount of food being thrown away, and choosing more sustainable dishes are key to creating positive changes, both for our bodies and for the environment. We loved the 'Small Change, Big Difference' approach of creating a whole school approach and were delighted to be a part of the project.

2 What did you do on the project?

We developed 'leftover food' cookery sessions for both parents/carers and children as part of the project, to show what can be done with food that would otherwise be thrown away. We supported school campaign days by providing food stalls and giving out healthy recipes that parents/carers and children could recreate at home. We offered themed menus for the campaign, and ran training for all kitchen staff on how to reduce food waste within their kitchens.

3 If you could give schools some top tips on how to work with catering companies and kitchen staff, what would they be?

- It's really important to have a champion within the school who takes ownership of the project and is able to engage and involve the kitchen e.g. linking in the catering to the activities and messaging taking place in the school.
- Offer training on reducing food waste for kitchen staff, and get them to pledge ways to reduce their food waste in the school kitchen, in the same way that the pupils and staff are.
- Motivate the kitchen staff by asking the children to present to them key messages they have learnt, and pledges they have made.

TASTE IT

DON'T WASTE IT



CASE STUDIES

> ENGAGING PARENTS/CARERS



An interview with Dorchester School

1 Why engage parents/carers?

As a school, we always want to engage parents/carers in activities with the pupils: it helps with their learning, facilitates healthy development for children and creates good home-school relationships. Engaging parents/carers can be a challenge for a variety of reasons (such as work commitments, language barriers, childcare for other siblings).

On this topic in particular, a whole school and family approach is beneficial because pupils only have so much decision making power; if messages are reinforced at home, then the learning and behaviour can be supported.

2 What activities did you do with parents/carers?

We worked with Groundwork London to run a 6-week cooking project with parents/carers. We invited parents/carers to a series of 'Come Dine with Me' sessions, where the parents/carers got the chance to cook healthy meals, and pupils rated the meals out of 5.

We also invited all parents/carers to the campaign day and gave them snacks made by the pupils from surplus food. We encouraged parents/carers to make pledges and invited them to volunteer at the food waste events.

3 If you could give schools some top tips on how to engage parents/carers with the food waste project, what would they be?

- You can send letters home, put articles in the newsletter, and use a 'text the parents/carers' service if you have one.
- You could also send letters home from the pupils themselves after a persuasive writing literacy lesson.
- Make it fun, and offer a variety of ways parents/carers can engage, from simple things like making pledges at home, to larger things such as cooking courses and volunteering.
- Offer opportunities for parents/carers to do activities with their children. At the end of the project, parents/carers reported that they were more motivated when they had an opportunity to do things with their children, rather than separately.