

**SMALL CHANGE  
BIG DIFFERENCE** presents...

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

**YES TO TASTE**



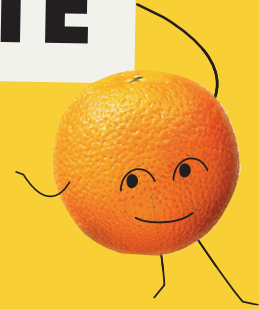
**NO TO WASTE**

Selected  
for the  
**hundredED**  
Sustainability  
Spotlight

**EDUCATION RESOURCES ON THE TOPIC OF:**

1. FOOD WASTE PREVENTION
2. FOOD WASTE RECYCLING
3. HEALTHY AND SUSTAINABLE EATING

> Lesson plans and resources for teachers and workshop leaders.



**GROUNDWORK**  
CHANGING PLACES  
CHANGING LIVES



LIFE15/GIE/UK/000867

[www.smallchangebigdifference.london](http://www.smallchangebigdifference.london)



PRE-LESSONS

## FOOD WASTE AUDIT & QUIZ

LESSON 1

## FOOD WASTE PREVENTION & RECYCLING

LESSON 2

## HEALTHY & SUSTAINABLE FOOD

LESSON 3

## PLANNING & PROMOTING THE CAMPAIGN

LESSON 4

## RUN A CAMPAIGN EVENT

LESSON 5

## SHARE LEARNINGS

Resources for each lesson are included.

- Downloadable link for full pack:

<http://resources.trifocal.eu.com/resources/education-packs/>

- Curriculum links: Literacy; Science; Numeracy; Geography; PSHE; Art; Design & Technology; ICT; Learning outside the classroom (LOTC).
- Feedback: Please let us know about your exciting activities by twitter at: Small Change Big Difference @smallchangefood / www.smallchangebigdifference.london





## TEACHER'S NOTES

This pack focuses on 3 key messages:

1. Food waste prevention
2. Recycling food waste
3. Healthy and sustainable eating

### 1. FOOD WASTE PREVENTION

**Why it's important?** Preventing food waste is good for the planet, by saving 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 it's thrown away.

**Food waste prevention key facts:**

- › If everyone in London froze their bread to make toast before it goes off, we could save 2,600,000 slices from the bin every day
- › The number 1 wasted food in the UK is potatoes- 700,000 tonnes are thrown away each year by households.
- › It takes 100 buckets of water to produce a loaf of bread.
- › Frozen fruit or veg can be as good for you as fresh fruit/veg . They're rich in nutrients and last much longer.
- › 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.



## 2. FOOD WASTE RECYCLING

**Why is it important?** When we recycle food waste, rather than release harmful gasses into the air (such as methane), those gasses can be trapped and turned into renewable energy (Anaerobic Digestion/ AD), or the food can be broken down and turned into compost / plant fertiliser (In Vessel Composting / IVC).

**Food waste recycling key facts:**

- › The CO<sub>2</sub> saved from one year of composting is equivalent to that created by a kettle in the same amount of time
- › If everyone in London today recycled just one banana skin, we could produce enough electricity to charge 16,616,738 mobile phones

## 3. HEALTHY AND SUSTAINABLE EATING

**Why is it 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.
- › If everyone in London went meat free for 1 day every week, we could reduce harmful greenhouse gases by more than 450,000 tonnes a year. That's the equivalent of taking 1,700 cars off the road.

## HOW TO USE THIS PACK

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

The pack contains 5 session plans (with session 4, the campaign event, offering 3 options depending on school preference). Each session has accompanying resources and each session is colour coded along with the resources for easy navigation. The resources are divided into two sections; 'Provided as part of this pack' refers to the resources we have provided that you can print/copy, and 'Resources you will need' are 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's 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. 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 school.

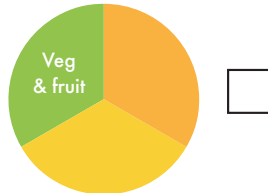
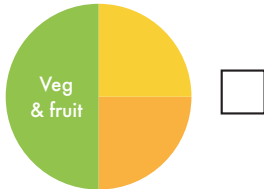
**QUIZ:** This is recommended to assess pupil learning and gain a before and after picture, showing the impact of the project and pupil progress. Answers are provided on a separate sheet.

Throughout the programme (and specifically for lesson 1), it will be good to have an understanding of the difference between edible and non-edible food waste, so that you can explain this 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)



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. FIFO (first in, first out)     d. Compost  
 b. Correct portions for you     e. Throw leftovers in the rubbish bin  
 c. Send to landfill     f. Only use fruit and vegetables in good condition

5. Draw arrows from each items in the boxes underneath to which bin they should be disposed of in the boxes above them.

Rubbish Bin

Recycling Bin

Food Waste Caddy

Don't know

Food packaging

Banana skins

Plate leftovers

Chicken bones

Mouldy food

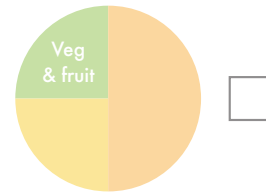
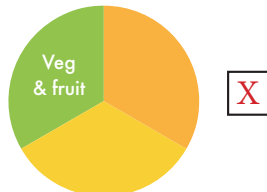
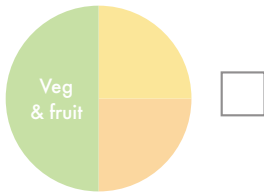
6. What gas is released in the air when food goes to landfill?

- Don't know     Yes I know and my answer is: \_\_\_\_\_



# 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)

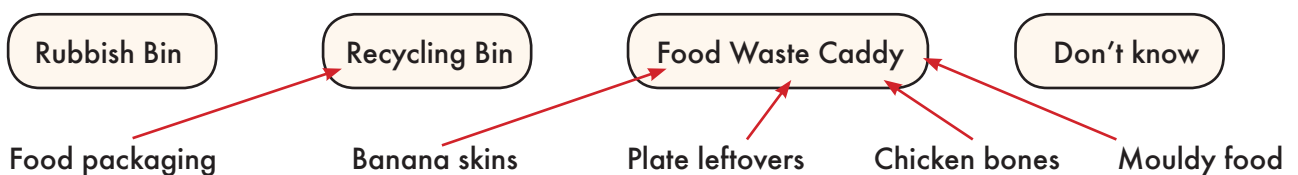
3. What type of food could you eat less of, in order to help the environment? (tick one box only)

- 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)

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 c. Send to landfill   
  f. Only use fruit and vegetables in good condition

5. Draw arrows from each items in the boxes underneath to which bin they should be disposed of in the boxes above them.



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)





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



You can choose either to monitor only school lunches plate waste OR all food waste including packed lunch food waste. (If measuring both, you'd weigh it all in kg (not working out the school lunches percentage) and monitor any weekly reduction.

- 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 5 weeks in a row. They will take turns on a rota to collect food waste from years 4, 5 and 6 (or other years/groups) once weekly.
- 2 Allocate an adult to oversee (e.g. a Teaching Assistant or mid-day supervisor). Allocated adult explain to food waste warriors to collect plate waste from pupils over lunch time, separating the food waste into two bins for each year group (marked edible and non-edible). Non-edible food waste (e.g. orange peel, banana skins, apple cores, bones); edible food waste (e.g. anything that could have been eaten). (5 minutes)
- 3 Food waste warriors set up food waste bins in canteen ready for lunch time audit. (5 minutes)
- 4 Food waste warriors direct pupils to put their plate waste in the correct edible or non-edible food waste bins. (30 minutes on a rota)
- 5 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 in the buckets then minus the weight of a bucket without food. (You can also keep the food waste to look at with the class after lunch.) (5 minutes)
- 6 Find out how many school lunches have been served each day the food waste audit takes place (from years 4, 5 & 6, if monitoring those year groups). This information can then be used to calculate the number of meals (plates) wasted (see food audit sheet). (5 minutes)
- 7 You can add this information to the bar chart on PowerPoint provided. The PowerPoint is a useful tool for looking at the results mathematically as a class and spotting trends. (5 minutes)



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# FOOD AUDIT SHEET

	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
WEEK 1						
WEEK 2						
WEEK 3						
WEEK 4						
WEEK 5						

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