

Classroom introduction

An introduction to active citizenship and food waste recycling

Age: 5 to 11

Time: Approx. 25 minutes + homework

Subject: Humanities, Science & Technology, Mathematics & Numeracy



THE MIGHTY FOOD WASTE MISSION

**BE MIGHTY.
RECYCLE.**



About The Mighty Food Waste Mission



Whilst Wales is one of the world's top recycling nations, a quarter of the average rubbish bin is still made up of food waste – equivalent to filling 3,300 double-decker buses every year. Shockingly, a massive 80% of that could have been eaten.

The Mighty Food Waste Mission is calling on children aged 5-11 to help create a more sustainable future where we waste less and recycle more. It will teach pupils how every bit of food we buy has **value** and how we can save money and protect our planet by making the most of it whilst recycling what can't be eaten to create energy.

The VALUE of preventing food waste

Throwing away food that could have been eaten costs the average family in Wales £83 per month, or £49 for a household of 2 people. Through the Mission, pupils will learn what items of food are most commonly wasted and how they can be used up in simple family dishes to avoid wasting food and money.

The VALUE of recycling food waste

If you can't eat it, recycle it! In Wales, our food waste is recycled into renewable energy. Pupils will discover that "inedible" food – such as banana peels, bones and eggshells – should go in the caddy and not the rubbish bin to create energy to power their homes and devices.

By using these curriculum-linked **Mighty Food Waste Mission** resources, you are helping your pupils understand the importance of reducing food waste and recycling what can't be eaten to create renewable energy, and how it can impact on Wales and the planet.

This programme has been developed in partnership with EVERFI and a panel of practising teachers.

Pupils can enter the competition by creating a recipe poster showing how we can use up commonly wasted foods. Prizes include a personalised food hamper for the family and books for the school.

You can find everything you need to join the Mighty Food Waste Mission on the Wales Recycles website:

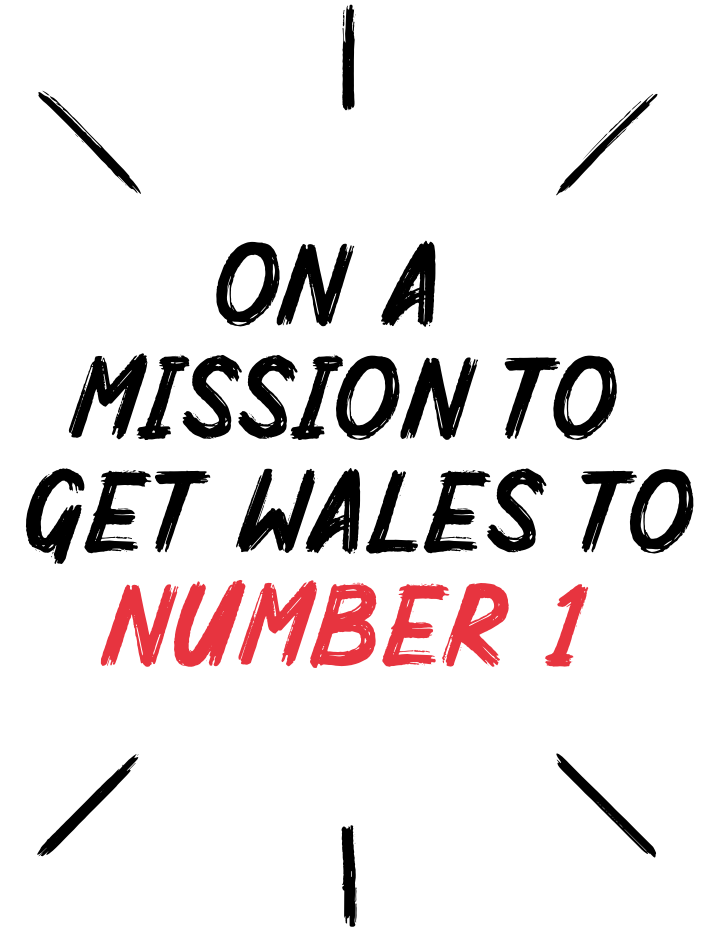
www.walesrecycles.org.uk/schools

Why take part?

The Mighty Food Waste Mission is part of Wales Recycles' national 'Be Mighty. Recycle' campaign, contributing to Welsh Government's goal of becoming a zero-waste nation by 2050 and boosting Wales to no.1 in the world for recycling. Join the Mission to help create a greener, cleaner Wales for future generations.

The activities and lessons are aligned with the Curriculum of Wales and your pupils' work can be used as part of your Eco-Schools evidence.

From 6 April 2024, it will become law for all workplaces, including your school, to separate their waste for recycling. This will help Wales recycle even more and help tackle climate change. By supporting the **Mighty Food Waste Mission** you will be helping your pupils understand how important recycling our waste is, and how it can impact on Wales and the planet.



Lesson overview

Learning objective:

Every bit of the food we buy has value: we need to make the most of it!

Activity	Overview	Slides	Timings
Starter activity	What can we do with Arthur?	8–12	5 mins
Introduction	Why food waste matters	13–20	5 mins
Activity 1	Saving edible food	21–23	3 mins
Activity 2	Recycling inedible food	24–28	7 mins
Plenary	Making a difference	29–32	5 mins
Competition intro	About the competition homework (create a recipe)	33–37	5 mins+
The Be Mighty recipe inspiration gallery	Showcase ways that everyday recipes can be updated based on what food might be at risk of being wasted	38–41	5 mins

After your pupils have completed the competition homework, as a class, review the recipes they have created (see slides 42-43)

How it works

We provide all the resources you need to complete the **Mighty Food Waste Mission** in as little as an hour!

Class introduction

Deliver a session informing pupils about the issue of food waste and how they, as engaged citizens, can help us all to get the most value out of our food.

Time: 25 minutes+

Suitability: Assembly or lesson

Resources: This slide deck



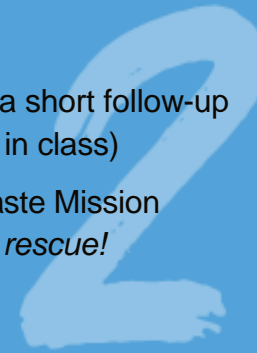
Competition homework

Create a recipe poster to help people to make the most of their food, using up what is edible and recycling what is inedible. There are prizes for the most inspiring recipes!

Time: 30 minutes+

Suitability: Homework (with a short follow-up session in class, or complete in class)

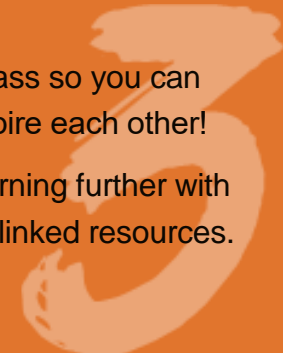
Resources: Mighty Food Waste Mission activity sheet: *Recipes to the rescue!*



Classroom follow-up session

Help your pupils take their learning further!
Go to www.walesrecycles.org.uk/schools to:

- Download our digital flyer for your school newsletter.
- Bring your recipes into class so you can share your ideas and inspire each other!
- You can also take the learning further with the additional curriculum-linked resources.



Extend your pupils' learning

We have fun additional science, English and maths challenges on our website: www.walesrecycles.org.uk/schools

Curriculum links Wales

Humanities

Enquiry, exploration and investigation inspire curiosity about the world, its past, present and future.

- *I have actively engaged with a range of stimuli, and had opportunities to participate in enquiries, both collaboratively and independently.*

Our natural world is diverse and dynamic, influenced by processes and human actions.

- *I can describe and give simple explanations about the impact of human actions on the natural world in the past and present.*

Informed, self-aware citizens engage with the challenges and opportunities that face humanity and are able to take considered and ethical action.

- *I can understand the consequences of my actions and the actions of others, and how these affect my locality and Wales, as well as the wider world.*

Health and wellbeing

Developing physical health and well-being had lifelong benefits

- *I can explain the importance of a balanced diet and nutrition and the impact my choices have on my physical health and well-being.*
I can plan and prepare basic, nutritious meals.

Mathematics and Numeracy

The number system is used to represent and compare relationships between numbers and quantities.

- *I can use the four arithmetic operations confidently, efficiently and accurately with integers and decimals.*
- *I can fluently recall multiplication facts up to at least 10 x 10 and use these to derive related facts.*

Languages, Literacy and Communication

Expressing ourselves through languages is key to communication.

- *I can recognise the appropriate language for different audiences and purposes, varying my expression, vocabulary and tone to engage the audience.*
- *I can adapt and manipulate language and make appropriate choices about vocabulary, idiomatic language and syntax in order to express – myself with fluency and clarity.*

Eco-Schools Action Plan (2023–24)

If your school is taking part in Eco-Schools, you can record your participation in the Mighty Food Waste Mission in your Eco-Schools Action Plan.

This will help ensure that your learning is transformed into action, and that positive change is lasting. It doesn't matter if you aren't the eco-coordinator; it's a whole school programme.

By surveying or measuring before you take action, you can show just how much of a positive impact you can make and really help Wales to become the best in the World.

These slides are editable so that you can adapt the content as necessary to meet the needs of your school's curriculum.

Target	Action	Who's responsible	Cost	Timescale	How will we measure progress? (Monitoring)
Reduce food going into the bin at home	<ul style="list-style-type: none"> • Set the Be Mighty homework • Include information about where families can get food waste bins in the school newsletter 	<ul style="list-style-type: none"> • Class teachers • School admin staff 	No cost	by end of April 2024	<ul style="list-style-type: none"> • Survey families about their food waste-related knowledge and behaviour
Reduce food waste at school	<ul style="list-style-type: none"> • Investigate and record how much food is wasted each day and why • Use findings to develop and implement waste reduction activities 	<ul style="list-style-type: none"> • Eco committee • Eco committee and lunch staff • Whole school 	No cost	by end of Spring term	<ul style="list-style-type: none"> • Weigh the food waste each day for a week before implementing any changes • Weigh again after your changes to see how much it has reduced

STARTER



Arthur is a banana



Arthur spent almost a year growing from a little bulb to an impressive fruit in Costa Rica, Central America.

Being used to a tropical climate, it was a bit of a shock when he was packed into a refrigerated ship bound for Wales – it took 10 whole days to get there!

He was excited to experience life on a supermarket shelf, and more excited still when the Llewellyn's family bought him for the bargain price of 20p. They gave him pride of place in their fruit bowl.

He looked forward to the day on which he would fulfil his destiny: sharing his delicious, vitamin-packed goodness with one of the Llewellyns!

As the days rolled on, Arthur began to lose hope, getting mushier every day. Finally, one rainy Tuesday, Sian Llewellyn picked him up. Finally! Had his moment come?

“What shall we do with this banana?” said Sian, wrinkling her nose. “It’s a bit mushy!”

Wounded, Arthur held his breath. What would become of him?

Sian has a choice

What can she do with Arthur?



Think about
the fruit and
the peel!

**DON'T FEED
GWYN
THE BIN**

Remember:
food waste
should not go in
the rubbish bin.
Don't feed the bin!



Sian has a choice

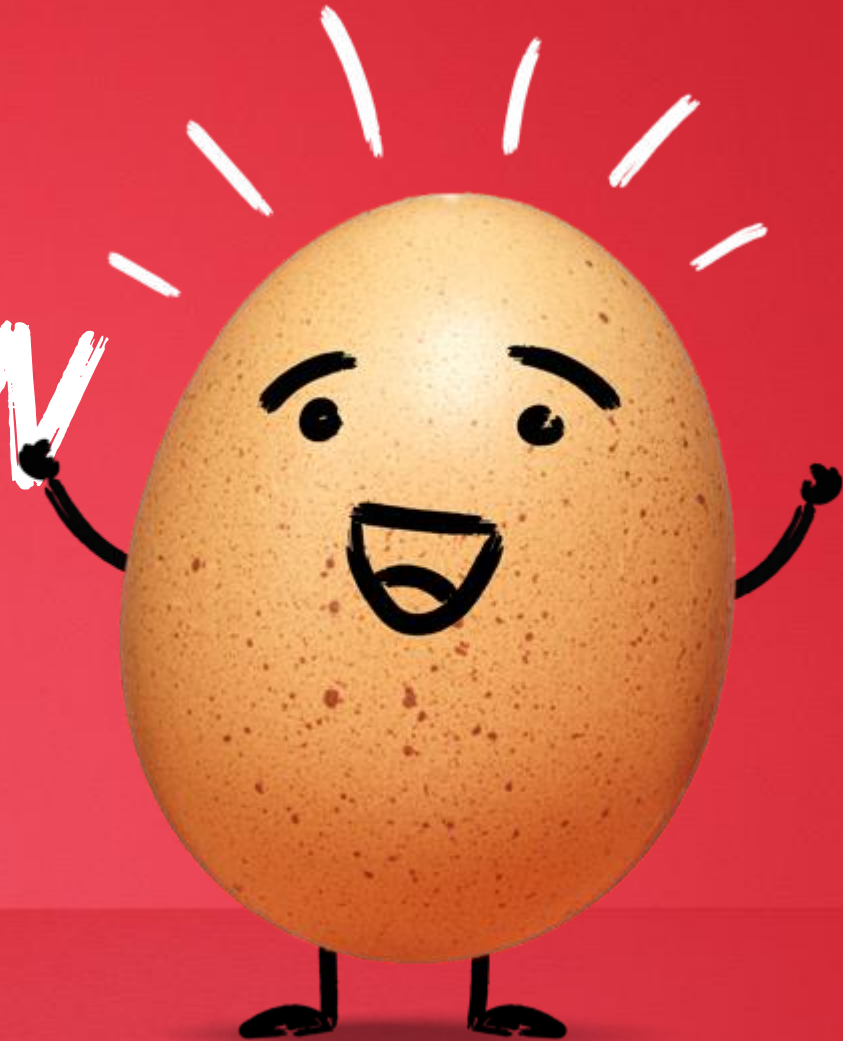
What can she do with Arthur?



What is the impact of Sian's choice?



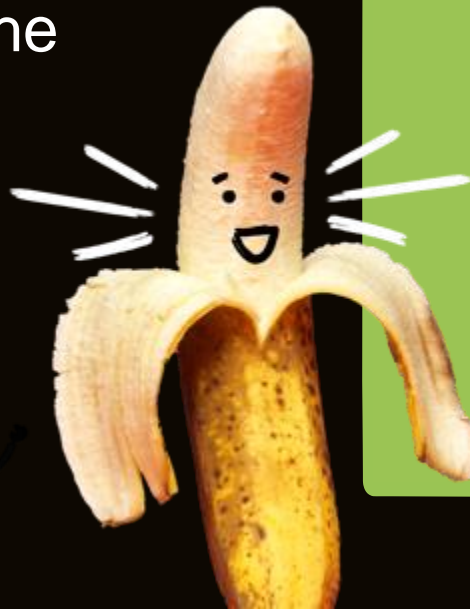
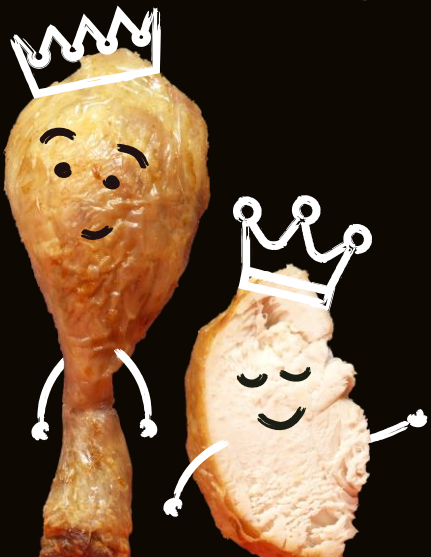
INTRODUCTION



What are we learning?

LEARNING OBJECTIVE

Every bit of the food
we buy has value:
we need to make the
most of it!



LEARNING OUTCOMES

I can:

- explain that "edible food" is food that can be eaten, and that we can save money by not wasting any edible food
- give some examples of "inedible food waste" (food that can't be eaten)
- describe how inedible food waste is used to generate renewable energy.

Join the Mighty Food Waste Mission!

Wales is leading the way in recycling – we are the third top recycling nation in the world!

But there is a long way to go to achieve the Welsh government's ambitious target of becoming a zero-waste nation.

Food waste is where YOU can make the mightiest difference and help get Wales to number 1! And you may save some money too!

We could fill **3,300 double decker buses** with the food waste that was thrown away in Wales last year.

83% of this could have been eaten and the rest could be turned into green energy to power our homes!



Let's make the most of our food!

Every bit of the food we buy has value – when we throw it in the rubbish bin, we waste that value.

VALUABLE NUTRITION

When we throw away edible food, we throw away money!

VALUABLE ENERGY

When we throw away inedible food (like eggshells or banana peels), we throw away the chance to turn it into renewable energy!

Get the most value
from your food

**IS IT
EDIBLE?**

Yes



No



Why food waste matters

Amount of waste in
our rubbish bins that
is food waste.

$\frac{?}{4}$



Food waste that
should go in the
rubbish bin?

$10 - 5 - 3 - 2 =$



Cost of throwing
away edible food to
the average Welsh
household each
month.

$47 + 2 =$



Number of recycled
banana peels to
charge a tablet.



Want to find out more about the power of food waste? Try our fun **Maths Mission!**

Why food waste matters

Amount of waste in
our rubbish bins that
is food waste.

$\frac{1}{4}$



Food waste that
should go in the
rubbish bin?

0

Cost of throwing
away edible food to
the average Welsh
household each
month.

£49

What could you do
with this money?

Number of recycled
banana peels to
charge a tablet.

3.5



Want to find out more about the power of food waste? Try our fun **Maths Mission!**

Why food waste matters

HALF OF 48



___% of the average rubbish bin in Wales is made up of food waste – it should be 0!

2 X 24.5 =



Throwing away edible food costs the average Welsh household £___ a month.

7 - 3.5 =



___ recycled banana peels would create energy to fully charge a tablet.

Want to find out more about the power of food waste? Try our fun **Maths Mission!**

Why food waste matters

24%



24% of the average rubbish bin in Wales is made up of food waste – it should be 0!

49



Throwing away edible food costs the average Welsh household **£49** a month.

3.5



3.5 recycled banana peels would create energy to fully charge a tablet.

Want to find out more about the power of food waste? Try our fun **Maths Mission!**

SAVING EDIBLE FOOD



From kitchen caddy to renewable energy

Listen carefully to the video and answer these questions:



What extra fruit was added to the banana pancakes recipe to help use it up?

How else could you use up ripe fruit or vegetables?

These three items go in the caddy for recycling:

b_____ p_____

e_____s

t_____ b_____

From kitchen caddy to renewable energy

Listen carefully to the video and answer these questions:



What extra fruit was added to the banana pancakes recipe to help use it up?

Raspberries were added to the banana pancakes recipe to help use them up.

How else could you use up ripe fruit or vegetables?

Fruit could be used up in smoothies, yoghurt, banana bread, home-made lollies, ice cream, cereal, bananas on toast, etc.

Vegetables could be added to pasta, an omelette, curry, soup, pizza, cheese on toast, stir fry, etc.

These three items go in the caddy for recycling:

banana peels

eggshells

tea bags

RECYCLING 'INEDIBLE' FOOD



What can we do with inedible food waste?

If you can't eat it, recycle it to help create renewable energy to power your home and devices!

When food waste is collected from your home, it's taken to a special processing facility where it's recycled into renewable energy.

Last year Welsh citizens recycled enough food waste to power over 10,000 homes! And just a single caddy of food waste can power a home for an hour.

Did you know that Wales is the world's 3rd best recycling nation?
By recycling all our food waste we could get Wales to no.1.

Want to find out what your food waste can power?
Try our **Power up challenge activity**.



3 banana peels
could power 2
smartphones

1 pumpkin shell
creates enough
energy to power a
home for an hour

Did you know: Food waste can be transformed into energy?

During anaerobic digestion, bacteria breaks down food waste without oxygen.

As the bacteria consumes the food waste, they give off biogas (mostly methane).

The biogas is a versatile fuel that can power homes, schools, businesses and vehicles.

Last year we recycled enough food waste to power **10,000 homes** for a whole year or **160 schools** for an academic year.



Want to find out more about how anaerobic digestion helps create renewable energy?
Try our fun **Science Mission experiment!**

What can we feed the caddy?

We have created these fun recipes to use up food at risk of being wasted!

For each of these recipes, what inedible food waste would you put in your food waste caddy?

Save a **potato** with a
Jazzed-up **pan omelette**

- Eggs
- **Potatoes**
- Onion
- Milk
- Peas



Save a **banana** with
a **Yoghurt sundae**

- Yoghurt
- **Banana**
- Strawberries
- Apple
- Granola



Save **chicken** with
Roast chicken fajita

- **Chicken**
- Peppers
- Carrots
- Fajita seasoning
- Tortilla wraps



Save a leek with
a **One-pot pasta**

- Pasta
- Tinned chopped tomatoes
- Onion
- Garlic
- **Leek**



What can we feed the caddy?

We have created these fun recipes to use up food at risk of being wasted!

For each of these recipes, what inedible food waste would you put in your food waste caddy?

Save a **potato** with a
Jazzed-up **pan omelette**

- Eggs
- **Potatoes**
- Onion
- Milk
- Peas

Answers:

Eggshells
Onion skin



Save a **banana** with
a **Yoghurt sundae**

- Yoghurt
- **Banana**
- Strawberries
- Apple
- Granola

Answers:

Strawberry stalks
Apple core



Save **chicken** with
Roast chicken fajita

- **Chicken**
- Peppers
- Carrots
- Fajita seasoning
- Tortilla wraps

Answers:

Chicken bones
Carrot tops
Pepper core



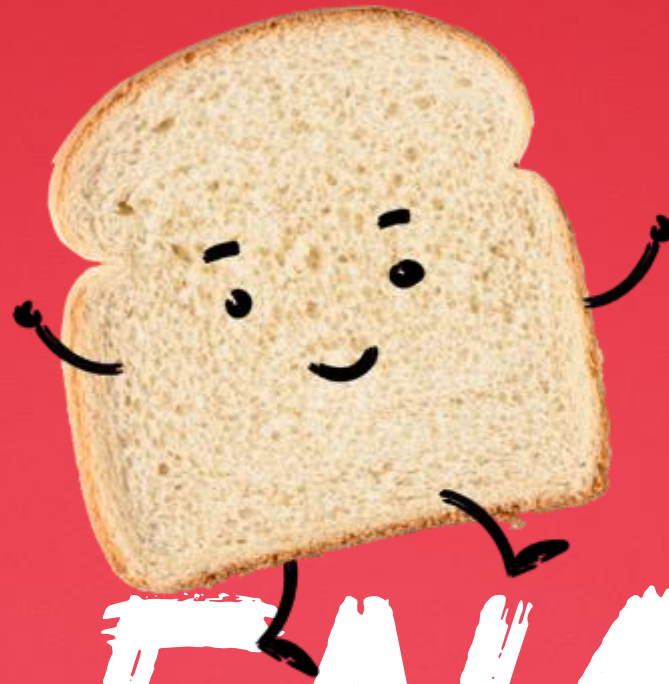
Save a leek with
a **One-pot pasta**

- Pasta
- Tinned chopped tomatoes
- Onion
- Garlic
- **Leek**

Answers:

Garlic skins
Root end of leek





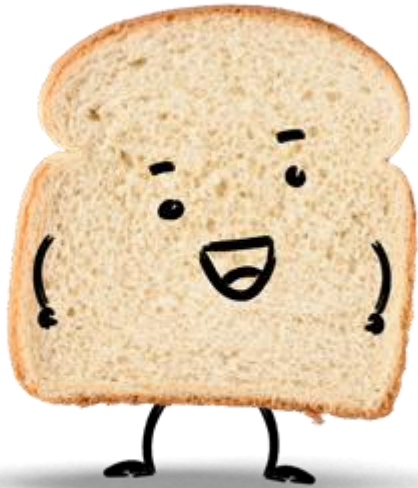
PLENARY

Want to get creative and share
what you've learned? Try our fun
Languages and Literacy Mission!

Ways to avoid waste

Can I really make a difference?

Every action has a consequence!
Your everyday choices
can help protect our planet –
and save money!

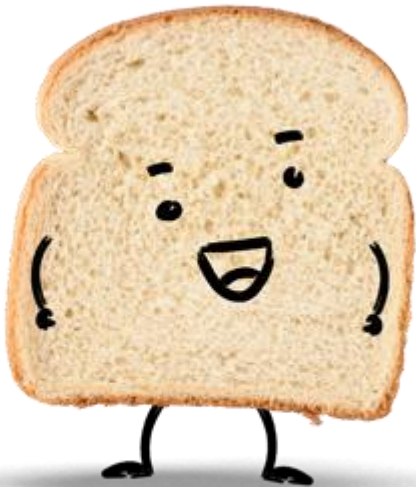


Question:

What does it mean
to be an active
citizen?

Can I really make a difference?

Every action has a consequence!
Your everyday choices
can help protect our planet –
and save money!



Question:

What does it mean
to be an active
citizen?

Answer:

Active citizens learn
about the challenges
that face our planet
and take action
to help make
a difference.



COMPETITION

INTRO

Your mission

Help get people to make the most of food and do their bit to make Wales the mightiest recycling nation!

We are asking children aged 5 to 11 to come up with ideas for healthy, delicious recipes that turn commonly wasted foods into feasts!



Create a recipe poster to share your idea.

A recipe poster template titled "RECIPES TO THE RESCUE!". The poster includes the following sections:

- Recipe name:** A line for writing the name of the recipe.
- First name:** A line for writing the child's first name.
- Age:** A line for writing the child's age.
- School:** A line for writing the child's school.
- What food have you saved from being wasted?** A large box for describing the food being rescued.
- Ingredients:** A box with lines for listing the ingredients.
- Method:** A box with lines for describing the cooking steps, labeled Step 1, Step 2, Step 3, and Step 4.
- Picture of meal:** A large box for drawing a picture of the finished meal.
- List the "inedible" food items from your recipe that can't be eaten but should be recycled:** A box with lines for listing food items that should be recycled.

At the bottom, it says: "Share your recipe at www.walesrecycles.org.uk/families by 30 April 2024 for a chance to win a PRIZE". The poster also features logos for Eco-Sgollon, Eco-Schools, Gweithredu ar Hinsawdd Cymru, Climate Action Wales, and Cymru yn ailgylchu Wales recycles.

First, choose something at risk of being wasted

Think about which food item is sometimes wasted in your home or choose one of these items that is commonly wasted.



Next, think about exciting ways to use it up

Brainstorm other recipe ideas for your chosen item.



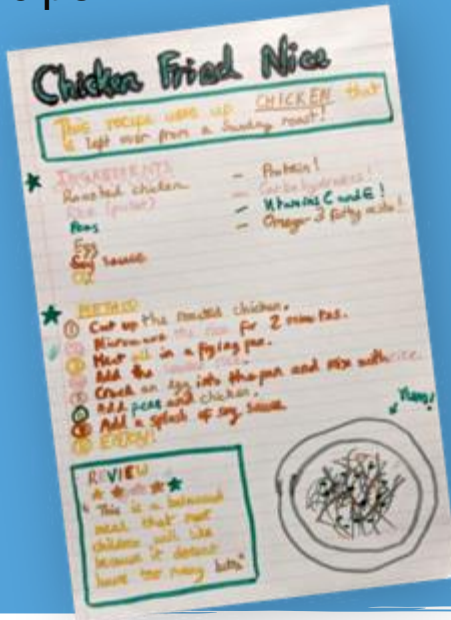
Look at the Eatwell plate to make your recipe as balanced as possible.



Still stuck for ideas? Adapt one of our recipes from our Be Mighty inspiration gallery!

Finally, create your poster and share it with us!

Ask a parent or carer to visit
[www.walesrecycles.org.uk/
families](http://www.walesrecycles.org.uk/families) and send a photo
of your recipe



If you actually make your
recipe, **send us photos!**
(optional)



Enter today to get a chance
of winning some great prizes:

- A hamper worth £50 full
of your favourite healthy food



- £50 worth of books
for your school

The competition deadline is **30 April 2024**

THE BE MIGHTY RECIPE INSPIRATION GALLERY



How could you adapt this recipe?

One pot pasta – serves 2

This easy and quick meal lets you throw in anything you have in the fridge.

There are lots of ways you can personalise it for your family!

Ingredients

- 160g pasta
- One pepper, diced
- Two carrots, grated
- Handful of mushrooms, sliced
- Tablespoon of olive oil
- One tin of chopped tomatoes

Method

Step 1: Boil your pasta as per packet instructions. While it is boiling, proceed to step 2.

Step 2: Fry the pepper, carrots and mushrooms in a tablespoon of oil, until soft.

Step 3: Add the chopped tomatoes and heat through, then mix in your cooked pasta and serve.



WHAT OTHER VEGETABLES COULD YOU ADD HERE INSTEAD? WHAT ABOUT LEFTOVER MEAT OR CHEESES?

THINK ABOUT DIFFERENT TYPES OF SAUCES. TWO TABLESPOONS OF PESTO WOULD WORK WELL HERE INSTEAD OF TOMATOES!



DON'T FORGET TO RECYCLE: ROOT ENDS, TOP OR CORE OF VEGETABLES, INEDIBLE VEGETABLE STALKS OR PEELINGS, MEAT BONES.

Or one of these?

Roast chicken fajita

- Spice up leftover roast chicken and vegetables.
- Fry mushrooms, tomatoes, peppers, spinach, grated carrot or any vegetables in a pan.
- Season with your preferred favourite fajita spices.
- Add the leftover chicken and heat thoroughly until hot.
- Enjoy in a wrap or on a jacket potato.



Epic cheese toastie

- Decorate leftover bread with exciting toppings.
- Add any vegetables such as tomatoes or leeks, cooked meat or ham, or even a spoon of leftover curry or chili to your favourite cheese filling.
- Serve with any salad items from your fridge.

Or one of these?



Jazzed-up pan omelette

- Use up eggs and potatoes in this tasty dish.
- Fry your favourite vegetable fillings in a non-stick pan until soft.
- Add boiled potato slices (leaving the skin on).
- Add your whisked egg and season.
- Sprinkle cheese and grill until golden brown.

Yoghurt sundae

- Get creative with the last pieces of fruit.
- Layer thinly sliced banana, apple or any fruits that need using up, with yoghurt.
- Sprinkle with crunchy granola or crushed up biscuits and a drizzle of honey.





REVIEWING YOUR RECIPES

What recipes did you create?

Bring your recipes into class so you can share your ideas and inspire each other!

Remember, the best thing we can do with inedible food waste is recycle it. But it's best for our bank balance and our planet if we **eat ALL of our edible food!**

How else can you help everyone in your community to get the most value out of the food we buy?

Idea! You could compile all the recipes into a class recipe book and share it with people at home!

