

How to be a green superhero

# A guide to saving energy and the planet




ASCL is delighted that, as one of our preferred suppliers, Zenergi has been looking at new ways to support schools and has created this new resource.

We know that from a very young age children are aware of the environment around them and are naturally curious and want to explore. The activities that Zenergi has put together as part of this resource help to harness that curiosity in a structured way.

At the same time, this new resource provides a useful, ready-made set of activities which can hopefully be built into existing workplans enabling teachers to further enhance the work that they are doing with pupils on the environment and natural world.

We would like to thank Zenergi for developing these resources and for making them available to school leaders and we hope that pupils and teachers enjoy using them.

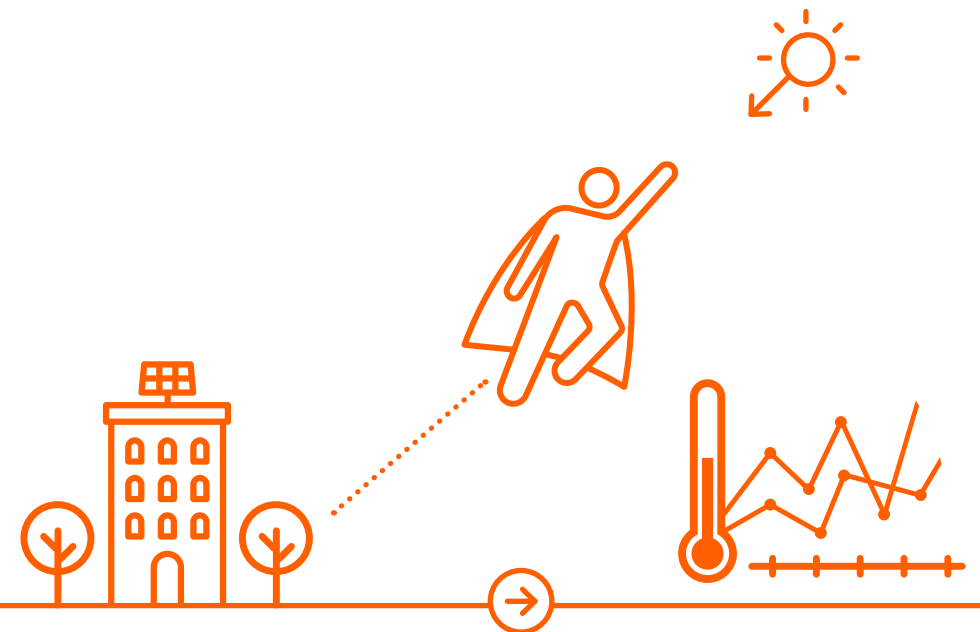
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Human behaviour is having a devastating impact on our planet and contributing to climate change, requiring urgent action to protect our world and its inhabitants for future generations.

Today's pupils – the energy users of the future – can play a critical role in reversing the effects of climate change.

This guide aims to ignite the passion our young people have to lead a more environmentally friendly lifestyle. There are practical tips for a 'greener' existence and fun activities to complete. Join us on the journey to becoming a green superhero!



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## The importance of energy



In the developed world energy plays a key role in our lives. It powers our technology and heats our buildings. Look around your school or your home, how many things require electricity in order to make them work?

Most of the UK's electricity is produced by burning coal, oil, and gas. These are called fossil fuels because they are formed from the fossilised, buried remains of plants and other organisms that lived millions of years ago.

Buried beneath layers of sediment and rock, these fossil fuels are carbon rich. It means that when they are burned to produce energy for power and heating they release carbon dioxide (CO<sub>2</sub>). These fossil fuels are polluting our atmosphere and speeding up climate change. This is because of the increasing concentration of CO<sub>2</sub> in the atmosphere that acts like a thermal blanket, causing the earth to warm up. This is global warming, also known as the greenhouse effect.



This heating of the earth – global warming – is happening at an alarming rate and causing catastrophic climate change.

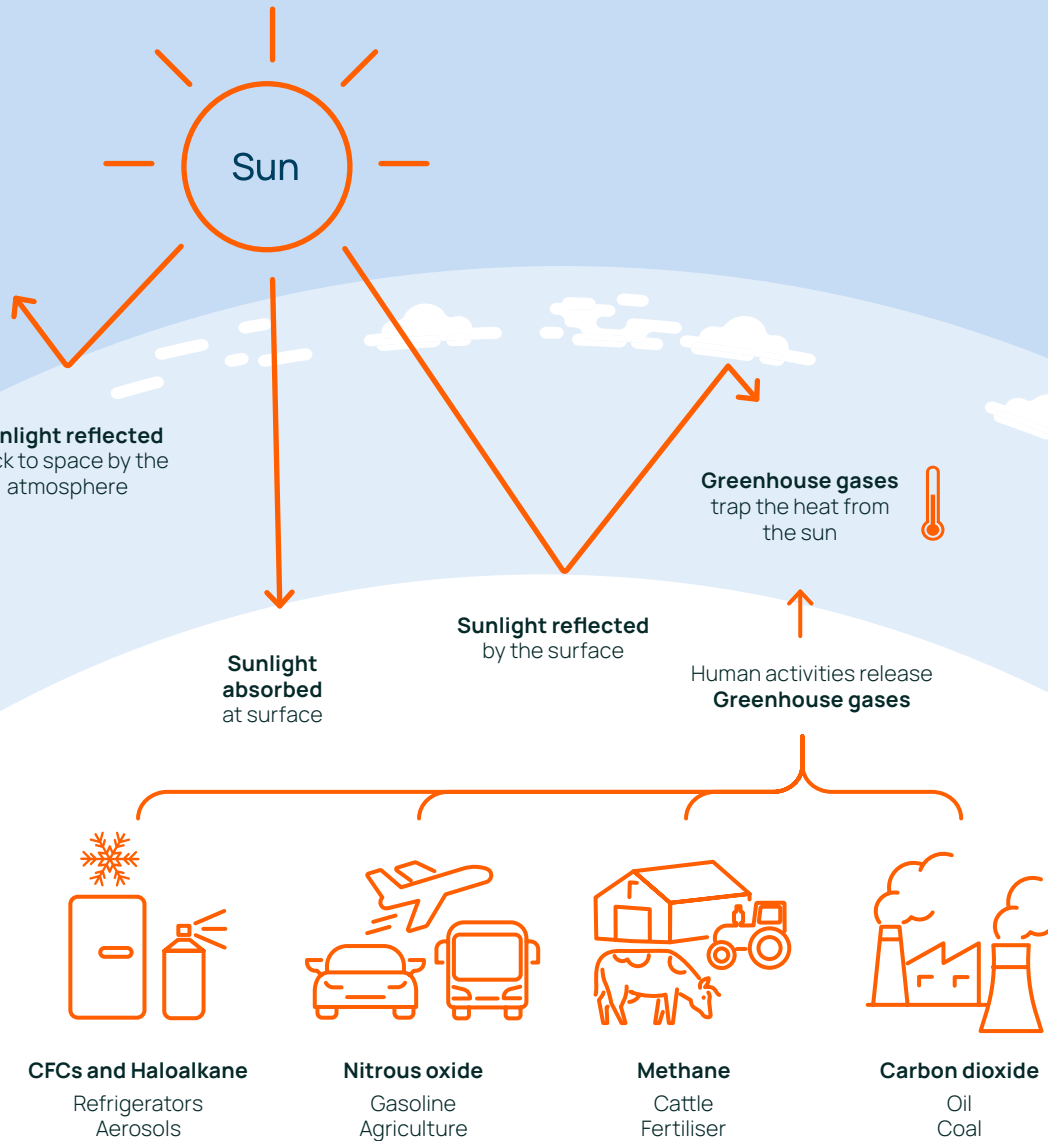


The polar ice caps are melting and we are seeing extreme weather conditions all over the world – from droughts to bush fires and flooding.



As long as we rely on fossil fuels for energy, we will continue to see the devastating consequences of soaring temperatures. The changes will be irreversible and our planet will be unrecognisable.

# The Greenhouse effect



# Renewable energy

Renewable energy, also known as alternative energy, is generated from natural resources that never run out – such as sun, wind, and water.

These resources can be used to generate electricity. Renewables are key in combating the effects of climate change because they do not emit CO<sub>2</sub> and other greenhouse gases that contribute to global warming. This means they produce clean energy and, as such, they are the fastest-growing source of energy around the world.

## Did you know?

Renewables, such as solar panels, are increasingly being installed in individual houses and buildings. This means that instead of buying all your energy from suppliers, you can generate your own.

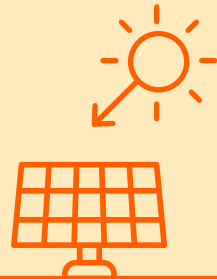
### Benefits of installing renewables:

- ✓ Reduce your use of fossil fuels
- ✓ Reduce your contribution to climate change
- ✓ Make use of local, natural resources
- ✓ Reduce your energy bills

The amount of electricity that is being generated by renewables is growing all the time. Businesses and domestic consumers can opt to choose a green tariff for their energy, which means that some or all of the electricity bought is matched by purchases of renewable energy that the supplier makes on their behalf.

### Solar power

Solar energy is generated by sunlight. Solar farms take advantage of that resource, with large-scale arrays of photovoltaic panels. Mounted on a building's roof, or installed in fields, the panels harvest the particles of light from the sun (photons) and convert it to clean electricity.



### Wind power

Wind power is the use of wind to generate electricity through outdoor wind turbines. The variable nature of wind does mean that there are times when turbines are not turning and therefore not generating electricity.

Offshore wind farms are more consistent in the energy they produce than onshore wind farms, but the development costs are much higher.



### Hydroelectric and tidal power

Hydroelectric energy uses the power of moving water to create energy that is converted into electricity via turbines.

Off-shore tidal power is a growing technology. It uses the power of tides and waves to generate electricity from water movement.



## How to save energy

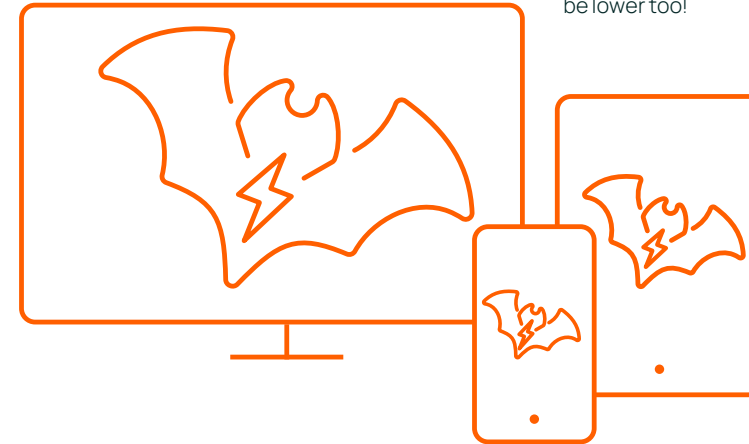


So now we understand the importance of energy and how renewable energy can lessen its impact on the environment. But did you know that even renewable energy can have negative consequences?

For example, hydropower can disrupt river ecosystems and harm or displace wildlife.

The best we can do is therefore to be more environmentally friendly by making sure we do not waste energy, and trying to use as little electricity, gas, and water as we can.

The good news is that there are some really easy ways to make sure that you use less energy. And using less energy means your energy bills will be lower too!



### Start by slaying the energy vampires!

Energy vampires are electronics and appliances that are sucking up energy even when they are not in use. Take a look around your school and your home and see how many things are consuming power just by being plugged in but not being used, or items that are using more energy than they need to by being left on when not required.

Energy vampire

Identify it

Defeat it

Standby scoundrels



Appliances are not being used but a continuous display, like a small red light or a clock, means that they are still draining energy when switched on at the socket.

Avoid standby functions by turning off all appliances such as televisions; DVD players; computers; monitors; printers; scanners; and microwaves when not in use.

Dark dodgers



Rooms are empty but the lights are all on, or natural light is bright enough but the lights are on too.

Refrain from using lights when they are not required on bright days and switch off lights when you leave the room.

Charging crooks



Phone chargers; camera chargers and electronic devices are plugged in when there is no device attached!

Switch off chargers at the socket when devices are sufficiently charged.

Make a note of how many energy vampires you find and see if you can slay them!

Are you a planet protector or an environment villain?

Remember these simple tips for lowering the amount of energy you use.



1 Avoid standby - switch appliances off.



2 Turn lights off when not needed.



3 Don't leave chargers plugged in when not charging devices.

4 Put a warm jumper on when you feel cold, before turning up the heating.



5 Clean your windows to maximise the amount of natural light let into your rooms - you may not even need to turn on the lights!



6 Turn off computers and laptops at the end of the day.



**7 Avoid overfilling the kettle**  
- use just the amount of water you require.



**8 Ensure food is cooled completely**  
before putting it in the fridge so that your fridge does not need to work harder to keep cool.



**9 Regularly defrost your freezer** to ensure it is as efficient as it can be.



**11 Set the washing machine to 30 degrees.**



**10 Take a shower** instead of a bath.



**12 Avoid tumble drying** if you can dry washing on the line outside.



**13 Wash up in a bowl**, rather than under a running tap.

**14 Don't keep the tap running** while you brush your teeth.



## Other ways you can help protect the environment

### In your home and garden

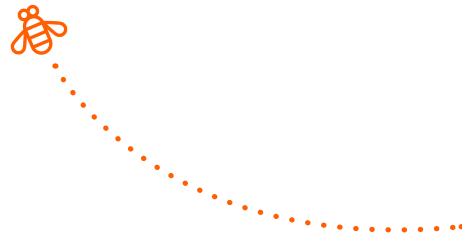
**Consider planting trees.** Trees are the key in the fight against climate change. They take in and store carbon that would otherwise remain in the atmosphere as a greenhouse gas. They can also provide useful shade on hot, sunny days and provide a habitat for wildlife.

Build a pond to provide essential water for a wide variety of wildlife. You can create a mini pond out of any watertight container, but make sure to position it where it will be safe, since even a mini pond can be a hazard.

Plant a variety of flowers and try to keep one area of your garden wild and overgrown to attract a diversity of wildlife and support a variety of habitats.

Bees play a critical role in food production as they are the biggest pollinator of food crops. But bees are in decline. You can help to save this important species by planting colourful pollinator-friendly flowers in your garden and avoiding the use of harmful pesticide sprays. If you see a bee that is looking a bit weary you can revive it by offering some watered-down honey or a sugary water mixture.





Collect rain in water butts to water your garden plants.

Recycle as much as you can and try to avoid buying items in hard-to-recycle plastics, in favour of glass and metals, which are typically recycled more cost-effectively. Collection of recyclables varies in communities, but national recycling solutions exist for hard-to-recycle waste that would otherwise end up in your waste bin.

Making changes to your diet can help the planet too. By eating local, fresh, and seasonal food you can reduce food miles. Food that is processed is not only less healthy for you, but it also impacts the environment because of the factory processes required to make and package the products, and the logistics required to distribute them. Reducing your consumption of meat in favour of a more plant-based diet reduces greenhouse gas emissions, and is a healthier option too.

Grow your own vegetables. There is lots of fun to be had from growing your own vegetables. Some, such as radishes and tomatoes are really easy to grow and can be planted in small spaces and containers. Others can even be grown from the discards; if you have a potato that has started to sprout, cut it in half, plant it and wait for potatoes to grow; the next time you have a tomato, try scooping out the seeds and planting them; the top of strawberries can be sliced off and planted to grow fresh strawberries; and the next time you are about to discard the heart of a lettuce, try planting it to enjoy fresh salad leaves.



## Other ways you can help protect the environment



### In your community

Always avoid travelling by car if you can walk or cycle.

Help improve your local environment and remove hazards to wildlife by regularly picking up litter. Sorting the recyclables from what you collect will reduce the amount going to landfill.

Shopping responsibly by supporting your local farm shop, or shops that allow you to refill your own containers and offer loose, plastic-free fruit and vegetables are more sustainable choices if you can afford them. Online grocery shopping is also a more environmentally friendly option than individual trips to the supermarket. This is particularly the case where shoppers can be flexible about timing, which allows more deliveries to be made together in the same area, reducing the carbon emissions of delivery vehicles.







## Your school and the road to net zero

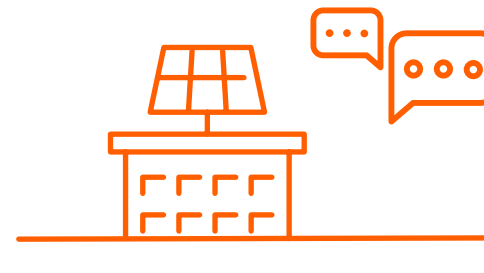
The UK is establishing itself as a leader in environmental management and the fight against climate change, after becoming the first country to pass laws to end its contribution to global warming.

It did this by committing the UK to a legally binding target of becoming net carbon neutral by 2050. This means that any CO<sub>2</sub> emissions would be balanced by schemes to offset an equivalent amount of greenhouse gases from the atmosphere, such as planting trees or using carbon capture and storage technology.

Many schools have already started the journey to significantly lowering energy use on the road to net zero. Some schools are implementing modern technology and renewables projects that are at the cutting edge of carbon reduction. These projects provide improved study environments alongside reduced energy consumption and costs.

The variety of energy efficiency projects available vary significantly in complexity and cost. From updating older technology and appliances with modern energy-efficient versions; to installing biomass boilers; solar PV; motion sensor taps; motion sensor lights; and replacing old lighting with energy efficient LEDs.... There is a solution to suit all schools according to budget and feasibility.

Often schools are challenged to finance the upfront costs for such improvements, but funding does exist to allow projects to go ahead without a large capital investment. Zenergi can provide advice about funding routes and identify suitable projects that will provide the necessary return on investment, as well as supporting the completion of the funding application.



Engaging staff and pupils in energy saving can be highly effective

Promoting energy saving in your school by making it everyone's responsibility can be very successful at reducing energy costs.

If you do not have an Eco Council yet, why don't you see if you can get one started? Invite pupils to write a speech and take votes to elect your members.

Many school Eco Councils are working towards the global Eco-Schools seven-step framework in order to achieve the international Eco-Schools Green Flag award and empower pupils to drive change and improve their environmental awareness.



## Here are some ideas for your Eco Council

**Make a list** of all the things that are using energy around the school.

**Identify all the electrical appliances.** Are they plugged in when not in use? Are lights left on in empty rooms? Can you make posters to remind pupils and staff to turn off lights and equipment?

**Is technology old and using more energy than it needs to?** What can be replaced? Often the cost of replacing outdated technology is quickly paid back in energy savings.

**Can you organise litter picks** in your local community?

**Can you lobby your Council** to improve the infrastructure for cycle lanes in your community?

**Can you celebrate awareness days**, offering non-uniform days in exchange for a small contribution to green causes?

**See if your Eco Council can have a regular spot in assembly** to update pupils on progress, and share photos of your activities in your school newsletter.

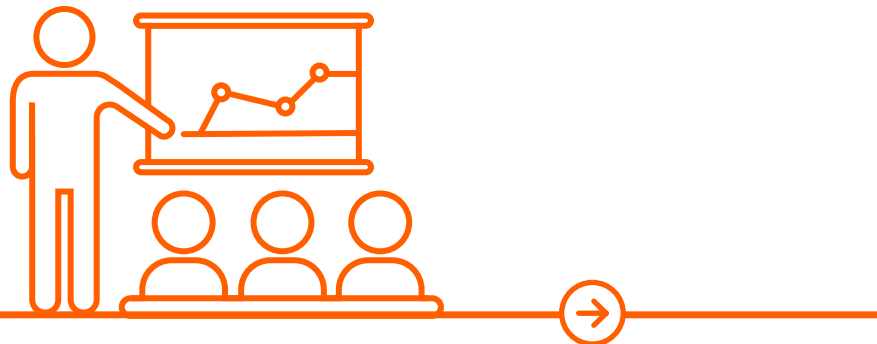
How energy efficient is your school?

Your school leaders can easily identify how energy efficient your school currently is by comparing to benchmarks. A typical benchmark is the energy cost per pupil.

A simple way of calculating this is to divide your school's annual energy bill by the number of pupils in your school. A typical benchmark for an energy efficient secondary school is around £70.40 per pupil. How is your school performing?

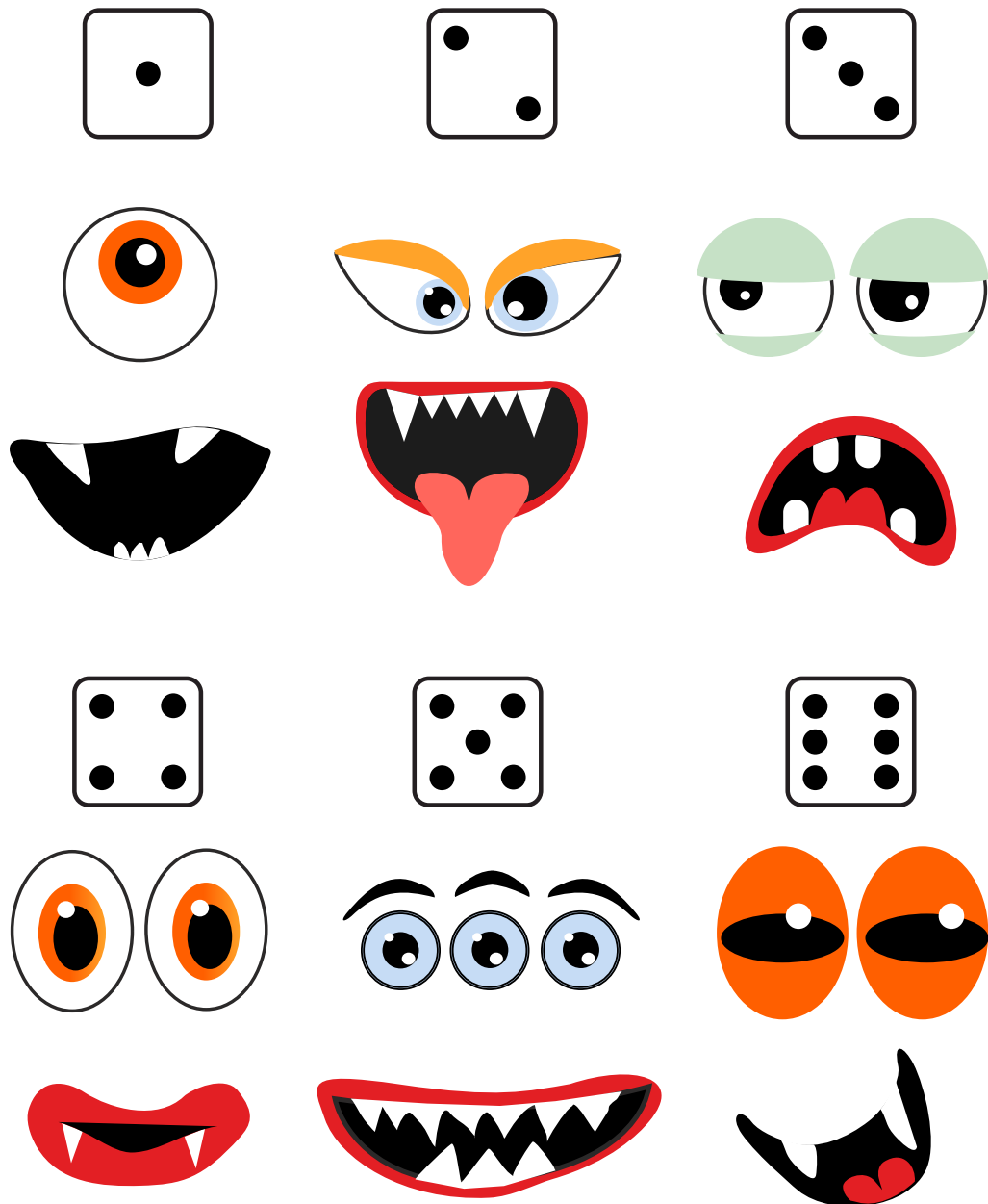
Regularly tracking your energy consumption on a simple chart can identify peaks in energy use which you can investigate for energy saving opportunities. For example, if you see only a little reduction in energy use during the holidays, consider what may have been left on that is consuming energy unnecessarily. Request your free school energy tracker at [bespositive@zenergi.co.uk](mailto:bespositive@zenergi.co.uk).

A professional audit of your school's energy consumption can help to identify how and where your school is using the most energy. This can help to identify opportunities to reduce energy consumption before any investment is made in technology or infrastructure.



Make and do





**Make your own monster planters!**

We all want to try and reduce plastic waste, but where you do have plastic bottles, why don't you have a go at turning them into planters for the garden. Here is a fun game to help you create a monster to decorate your planter with.

**Roll the dice monster planters**

**Step 1**

Carefully cut your plastic bottle around the middle and pierce holes in the bottom for drainage. Put the top half in your recycling bin.

**Step 2**

Paint your bottle (optional) and leave it to dry.

**Step 3**

Roll the dice to select your monster's eyes and roll the dice again to select your monster's mouth. Cut them out and stick them on your bottle. Your planter is ready to be filled!



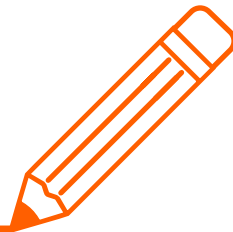


## Eco warrior word search!

Can you find all the words and phrases hiding in the grid? Look down, across and diagonally!

S	A	V	E	O	U	R	P	L	A	N	E	T	X	D	O	R	I	F	L
O	C	R	L	F	P	C	A	E	G	V	L	O	M	N	B	E	K	H	J
Z	L	A	F	O	S	S	I	L	F	U	E	L	S	I	Y	D	C	R	B
L	I	N	R	M	B	J	O	T	E	G	C	H	V	R	E	U	S	E	X
D	M	W	N	B	A	K	U	R	S	D	T	F	A	H	R	C	J	C	N
L	A	R	G	L	O	B	A	L	W	A	R	M	I	N	G	E	T	Y	Q
D	T	K	F	V	L	N	M	T	H	P	I	V	N	Z	C	X	B	C	T
Y	E	A	Z	C	T	G	F	H	O	W	T	U	E	Y	D	W	K	L	U
F	C	P	G	N	J	E	L	O	M	H	Y	R	P	I	H	A	D	E	R
A	H	D	C	E	N	V	I	R	O	N	M	E	N	T	V	N	M	T	B
G	A	S	K	Q	A	E	S	D	F	T	G	P	O	E	H	W	T	P	I
D	N	K	V	C	F	B	N	L	N	R	P	O	L	L	U	T	I	O	N
H	G	R	Z	T	D	I	L	E	C	F	W	R	C	D	L	I	M	W	E
C	E	S	N	B	T	O	P	B	R	W	N	V	I	K	A	D	S	E	G
D	J	K	E	G	Y	R	S	L	I	G	R	E	E	N	D	A	F	R	H
S	W	A	T	E	R	V	H	O	Z	D	Y	B	N	G	T	L	M	K	O
T	I	U	Z	A	L	M	W	H	L	J	K	O	I	P	D	W	F	D	I
H	N	F	E	P	R	E	N	E	W	A	B	L	E	S	L	C	O	A	L
C	D	V	R	B	H	A	I	U	Q	K	R	F	W	T	B	N	L	M	Y
S	T	P	O	S	I	T	I	V	E	E	N	E	R	G	Y	K	O	N	B

- |                 |                |                  |
|-----------------|----------------|------------------|
| POSITIVE ENERGY | CLIMATE CHANGE | GAS              |
| SAVE OUR PLANET | CHANGE         | SOLAR            |
| ENERGY          | RENEWABLES     | TIDAL            |
| GLOBAL WARMING  | NET ZERO       | CARBON FOOTPRINT |
| WATER           | COAL           | GREEN            |
| POWER           | OIL            | ELECTRICITY      |
| REDUCE          | FOSSIL FUELS   | WIND             |
| REUSE           | POLLUTION      | TURBINE          |
| RECYCLE         | ENVIRONMENT    |                  |



## Make your own flapjacks!

Making your own school snacks is a great way to reduce disposable packaging and single-use plastic.

Here is a simple recipe for delicious flapjacks that will provide lots of energy for a busy school day.

Try adding different ingredients, such as chocolate chips or dried fruit.

### Flapjack maths

This delicious recipe for flapjacks uses just four ingredients. Can you work out how much of each ingredient is needed based on the sums and equations? (answers at the bottom of the page).

#### Jumbo porridge oats

The weight of porridge oats in grams is 50 x 5.  
Add \_\_\_ g of porridge oats to the food processor bowl.

#### Butter

The weight of the butter in grams is half the weight of the oats.  
Add \_\_\_ g of butter to the bowl.

#### Light brown sugar

The porridge oats are twice the weight of the light brown sugar.  
Add \_\_\_ g of light brown sugar to the bowl.

#### Golden syrup

Add 2-3 tablespoons of golden syrup to your dry ingredients.

#### Mix all the ingredients together by pulsing in your food processor

Avoid overmixing to retain some texture.

#### Spoon the mixture into a 20cm x 20cm greased baking tin

Bake at 200°C/Gas mark 6 for 15 mins and cut into squares when cooled slightly.





## Make your own mini water butt!



Transporting and treating the water you use from your taps uses a lot of resources. You can collect rain water in your own mini water butt and use it to water plants on sunny days, helping to reduce water resources being taken out of rivers and reservoirs and protecting the wildlife living in it.

### You will need:

A clean 4-litre or 6-litre plastic milk bottle with lid, scissors, string and PVA glue (optional).

#### Step 1

Carefully cut off the bottom of your plastic bottle.

#### Step 2

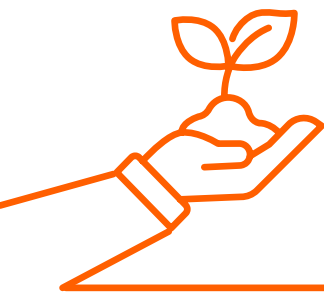
You could decorate your bottle by cutting out your favourite pictures and sticking on to your bottle with PVA glue (gluing over the top of them will help to protect them from washing off in the rain), or clear sticky tape. Or you could draw and paint pictures.

#### Step 3

Turn your milk bottle upside down (so the lid is at the bottom) and attach it to your chosen location outside with string. Make sure the lid is screwed on tight and then it is ready to collect rainwater.

#### Step 4

When you have a sufficient level of water in your water butt, unscrew the lid so the water flows out into a jug or watering can to water the garden or your indoor plants.



## Did you know?



### Five cool water facts\*

- 1 Fresh water makes up less than 3% of the earth's water
- 2 Every person in the British Isles uses 150 litres of water a day
- 3 A bath uses up to 75% more water than a 5-minute shower
- 4 Up to 60% of the human body is water
- 5 The rain that falls today is the same fresh water that dinosaurs drank!



### Five simple water saving tips

- ✓ Turn off the tap when brushing your teeth
- ✓ Wash up in the bowl instead of under a running tap. If the water is not too soapy or greasy you can then use it to water your garden
- ✓ Use the water collected in the condenser unit of your tumble dryer to water your plants
- ✓ Avoid using a hose in your garden and use a watering can instead
- ✓ Take showers instead of baths



## Make your own bird feeder!

Invite a variety of birds into your garden with a bird feeder. Here we share four fun and easy-to-make feeders.

### Orange cake

Cut an orange in half and scoop out the flesh.

Carefully pierce two holes in the bottom of the orange shell and thread string through the holes, tying together at the top so that it can be hung.

In a bowl combine lard with ingredients such as raisins, grated cheese, chopped nuts, seeds, and chopped dried fruit. Mix it all together with your hands and press into the empty shell of your orange.

Leave to set in your fridge for around 30 minutes.

Thread one wooden skewer through the feeder to make a perch and hang up ready for birds to feast!



### Bird kebab

Thread raisins, chunks of cheese and apple onto a wooden skewer.

Attach a piece of string at each end of the skewer to make a loop for hanging.



### Pine cone feeder

Tie a piece of string around a pine cone in order to make a hanging loop.

In a bowl combine lard with ingredients such as raisins, grated cheese, chopped nuts, seeds, and chopped dried fruit. Use your hands to mix it all together and press into and around your pine cone. Pack the mixture in tightly and squeeze to fill all the gaps.

Leave to chill for around 30 minutes in the fridge before hanging out for the birds.



### Toilet roll feeder

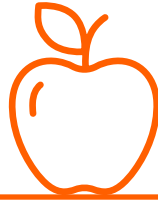
Recycle your toilet rolls into enticing bird feeders.

Thread a length of string through the centre hole of the toilet roll and tie it to make a hanging loop.

Spread peanut butter all around the outside of your toilet roll and then roll it in a mixture of seeds or crushed nuts before hanging up for the birds to enjoy.



## Make your own beeswax wraps!



Limit your use of single use plastic by making your own beeswax wraps to wrap your packed lunches and snacks in.

Beeswax pellets can be purchased quite economically and you can make use of leftover scraps of fabrics from other craft projects, so ditch the cling film and plastic sandwich bags in favour of your own easy-to-make wraps! They can also make original and thoughtful gifts.

### You will need

100g cosmetic grade beeswax pellets  
Squares of cotton fabric, washed, dried and ironed

Saucepan

Mixing bowl

Wooden spoon

Paintbrush

Baking tray lined with baking paper

Tongs

Newspaper

When you are ready to use your wrap, use the warmth of your hands to wrap it around your food.

After use, wash it in warm soapy water and hang up to dry ready for next time! Beeswax wraps can be used to keep sandwiches, cheese, fruit, vegetables, bread, cakes and more fresh.

They are not recommended for use with raw meat or fish.

You can wash and reuse your wraps again and again and each wrap can last up to a year or more with care.



### Step 1

Cut your fabric into squares of your desired size. This recipe is enough to cover four squares 30cm x 30cm in size, which is big enough to wrap a sandwich. Cutting them with pinking shears will stop the edges fraying.



### Step 2

Preheat the oven to 140°C. Place a saucepan of water over a medium heat. Put a larger mixing bowl over the top of the saucepan and pour the beeswax pellets into the bowl. Stir gently until melted.



### Step 3

Once the beeswax is melted, keep it on the heat while you line a baking tray with a piece of baking paper. Put your square of fabric on the baking tray and heat in the oven for two minutes.



### Step 4

Remove the baking tray from the oven and paint the melted beeswax onto the fabric, making sure that the wax permeates the fabric and covers it fully. Place back into the oven for a further minute to melt the mixture and then brush it again to ensure even coverage.



### Step 5

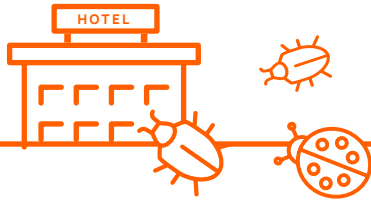
Use tongs to remove the wrap from the baking tray and hang up to dry, with newspaper underneath to catch any drips. Your wrap will be dry in a few minutes.

## Make your own garden a haven for wildlife!

Making a bug hotel can be a great way to create a home for wildlife – from woodlice and ladybirds, to solitary bees and bumblebees, and even hedgehogs and toads.

It is also a perfect use for redundant items lying around, like broken pots or bricks. You can collect a variety of things in your garden or on country walks, like twigs, and small branches and logs; pinecones and bamboo canes.

Items like pallets can make a good structure for your bug hotel. Fill the spaces with the items you've collected and let the wildlife move in!



## Make your own mini pond!

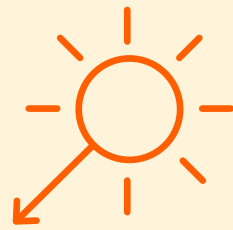
A pond can provide vital water and a home for lots of wildlife. Any container that holds water can be used to create your pond, from a washing up bowl to a garden tub or old sink.

You can either dig a hole for a sunken pond, or have it sitting above ground. Think about where to position your pond so it is in a bright spot, but not in direct sunlight, and make sure it is in a safe place so as not to cause a hazard.

Add a layer of different-sized stones and rocks, to enable your wildlife to climb in and out. If your pond sits above ground you will also need to provide logs or stones to enable wildlife to get in and out of the pond. Fill your pond with rainwater (tap water contains chemicals that can be harmful to wildlife). Add a couple of aerating plants to your pond and now your pond is ready to attract damsel and dragonflies, frogs, toads and newts, and pond skaters.







## Make your own solar oven

Use energy from the sun to cook delicious treats! Follow the simple steps below to make a solar oven that reflects the sun's heat to make the air inside the oven hotter than the air outside!

### You will need

A box with a top closing lid (a pizza box is ideal); aluminium foil; plastic wrap/cling film; black paper (optional); glue/tape; scissors and a ruler.

### What can you cook in your oven?

There are lots of things you can cook in your solar oven from jacket potatoes to toast!

Here are three easy snacks which can be ready in less than an hour on a hot day!



### S'mores

This traditional campfire treat works really well in a solar oven. Place a marshmallow on top of a digestive biscuit in your solar oven. Once the marshmallow has begun to melt, place a chocolate digestive on top with the chocolate side facing down and press together to make a sandwich. After a few minutes more in the solar oven your s'more will be ready to eat!



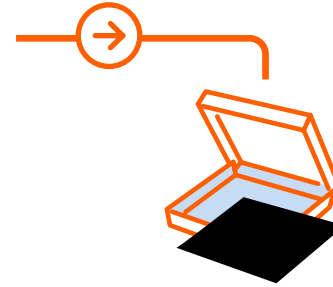
### Nachos

Place a pile of Tortilla Chips into your solar oven with grated cheese on top and wait for the sun to melt the cheese.



### Mars Bar sandwich

Place a square of Mars Bar on top of a digestive biscuit. Once the Mars Bar looks like it is beginning to melt, place another digestive on top and press down to make a sandwich. Leave for a further few minutes to fully melt.



### Step 1

Cover the inside bottom and sides of the box with aluminium foil, smoothing out the wrinkles and sticking in place with the shiny side face up.

Optional: Cut a piece of black paper to fit over the foil on the bottom of the box. This will absorb the heat of the sun.



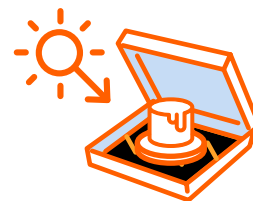
### Step 2

Cover the underside of the lid with foil, smoothing out the wrinkles and sticking in place. Draw a square on the top of the box leaving a good gap around three edges. Cut along the three edges, leaving the back edge uncut to act as the hinge for the solar oven door.



### Step 3

Now you need to seal the hole that has been created by the new oven door. With the original lid closed, open the new lid and cover the hole with plastic wrap, taking care to cover it from edge to edge without any gaps. Smooth out the wrinkles and tape it securely in place.



### Step 4

Place your solar oven in the sunniest position outside and open the original box lid. Place your food on a piece of foil inside the box and close the lid securely. Open the solar oven door and keep it propped open, you could use a ruler.

The solar oven must always be facing the sun and you may need to adjust the angle of your door to capture the maximum reflection of sun into your oven.

## Green footprint calculator

The effects of climate change are devastating and plain to see. But if we all do our bit to be kinder to the planet we can make a difference.

The COVID-19 pandemic changed life for us all very quickly and perhaps some of the shopping and lifestyle habits we changed will stay with us in the future.

Give yourself one point for all the positive things you and your family do, and then deduct a point for each thing that may have a negative impact on the environment. Calculate your final score and check how green you are on the scale.

Give yourself one point for each of these positive actions

- I walk to school
- I recycle glass, cans/tin, plastic
- I recycle soft plastics
- I use a reusable lunch box/sandwich wraps
- I compost peelings
- I order milk from the milkman
- I take reusable bags when I go shopping
- I shop locally where possible
- I buy organic food
- I eat little or no meat
- I turn off televisions instead of using standby
- I don't overfill bottles
- I put a jumper on before turning the heating on
- I don't waste food
- I turn the tap off when brushing my teeth
- I holiday in the UK
- I eat fresh and seasonal food
- I use a reusable cup for takeaway hot drinks

Now think about how many of these things you normally do that may have a negative impact on the environment

- I buy milk in plastic bottles
- I buy other drinks in plastic bottles
- I use cling film
- I don't recycle food packaging
- I leave devices plugged in and switched on
- I fly abroad for holidays
- I eat processed food
- I buy hot drinks in disposable cups



13-18

**Amazing!**  
You're a Super Green Hero

7-12

**Good work!**  
You've started on the green path

0-6

**Got some work to do!**  
How can you be more green?





## Take a look at our exciting game

Play Climate Crisis and become a Zengineer! Help a virtual community to become part of the green revolution. Make improvements to the community that reduce its climate impact and increase the happiness levels of its residents before 2050, when time runs out and the game ends. Successfully answering quiz questions and demonstrating your knowledge earns more coins and improves your chances of topping the leader board. Challenge your friends now!

Play the game here: <https://zenergi.co.uk/climate-crisis/>


**If this guide has inspired you, here are some other great sources of planet-saving inspiration!**

[www.greenpeace.org.uk](http://www.greenpeace.org.uk)

[www.woodlandtrust.org.uk](http://www.woodlandtrust.org.uk)

[www.friendsoftheearth.uk](http://www.friendsoftheearth.uk)

[www.eco-schools.org.uk](http://www.eco-schools.org.uk)



## Be a green super hero

## Powering a sustainable future

### About Zenergi

Zenergi supports and empowers organisations' journey to net zero. With a unique range of services, we tailor sustainable solutions for our customers.

What sets us apart? We drive major reductions in costs, energy consumption and carbon emissions with our market-leading procurement service; informed advice, and unrivalled engineering expertise.

Let us simplify and accelerate your journey to a more sustainable future, we're here to guide you every step of the way.

### Find out more

For more information about Zenergi's Social Value Strategy, visit [www.zenergi.co.uk/social-value](http://www.zenergi.co.uk/social-value)

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