

4-ZERO



Welcome to

4-ZERO

This resource will give you a flying start to living a sustainable-ish life over lent, and will help you to lower your carbon footprint and be more environmentally friendly!

Inside this pack you'll get:



4 challenges to try throughout lent



a 40-day calendar to track your progress

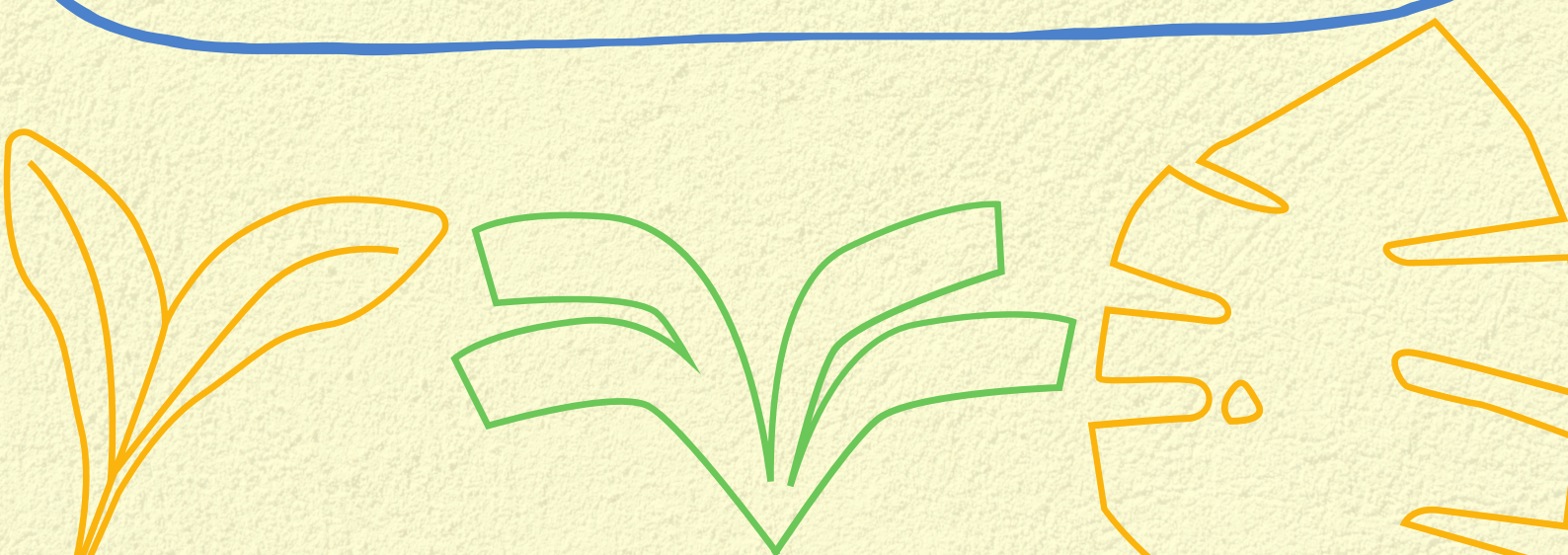


science and research behind some of these ideas



what the Bible says about the environment

First of all, lets start by not printing this pack! You may want to print the calendar, or a few pages, so maybe use recycled paper instead.



The challenges

There are 4 challenges in the 4-Zero pack. You can choose whether you pick 1 challenge and stick to it for 40 days, or take on all 4 challenges for 10 days each. Some of the ideas in the challenges are similar, so you can really work at building on those habits!

Food



Energy



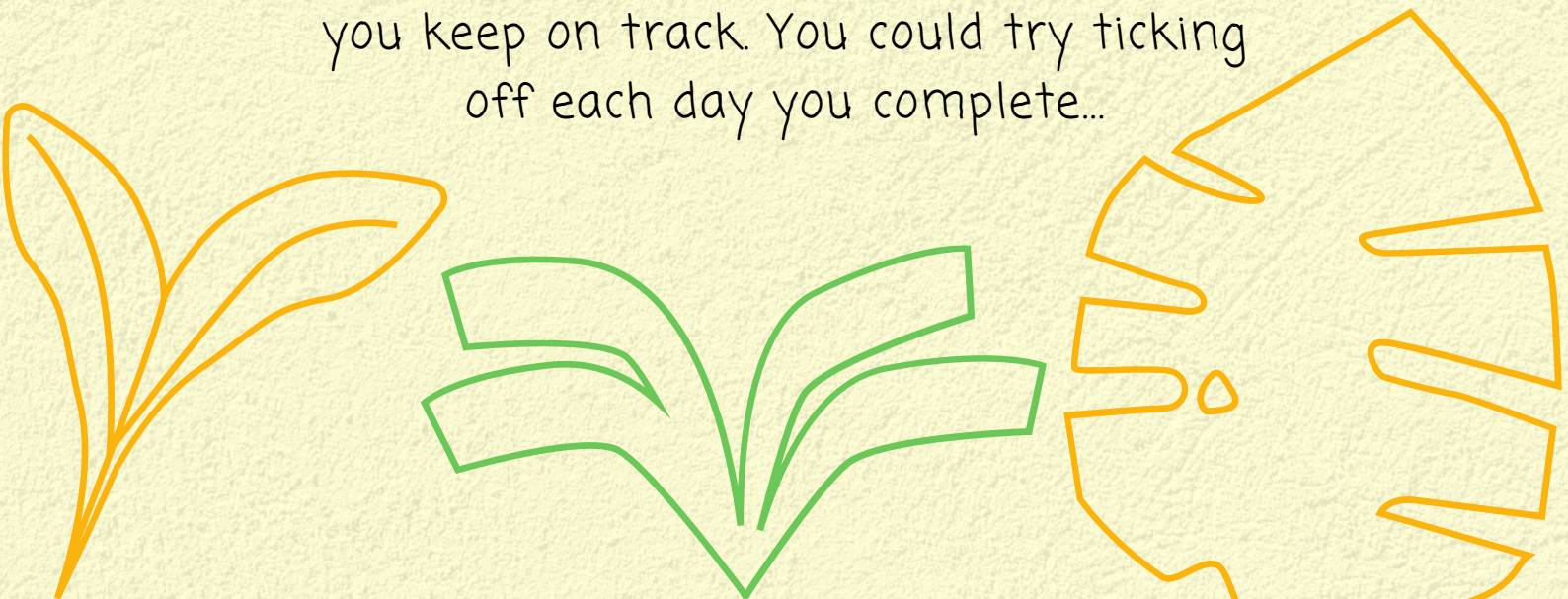
Plastics



Shopping



The calendar on the next page will help you keep on track. You could try ticking off each day you complete...



40-Day calendar

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

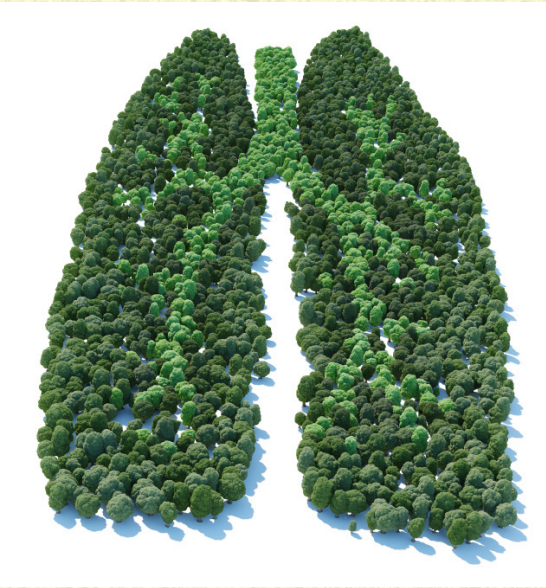
38

39

40

Let's get started!

Let's start by reminding ourselves why we love our world!



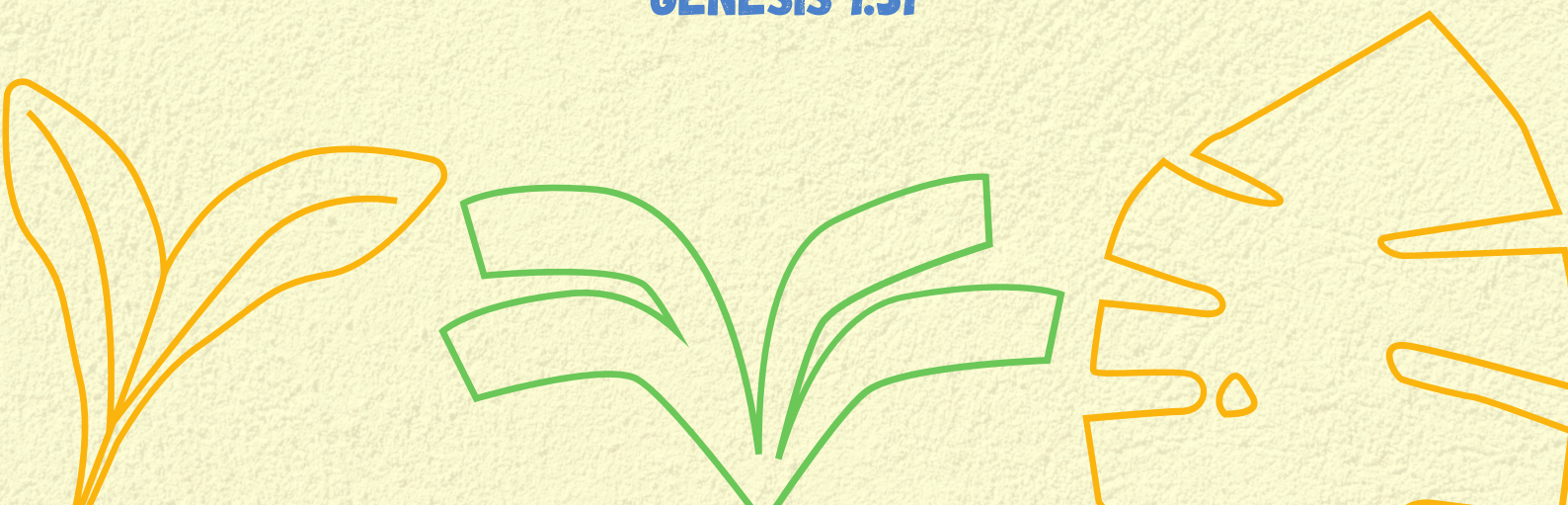
If it's safe, go for a walk. Take a camera and get some photos of the world around you.

You could even take some paper and pencils and draw what you see.

Why not put the picture up on the fridge, or set it as your desktop photo, to remind you why you are taking part in this challenge!

"GOD LOOKED AT ALL THEY HAD MADE, AND IT WAS VERY GOOD"

GENESIS 1:31





Challenge 1

This challenge is all about what we put in our bodies - FOOD.



If you care about the environment, you've probably asked yourself some of the following questions (& probably more!):

Should we all go veggie?

What's flexitarianism?

What about veganism?

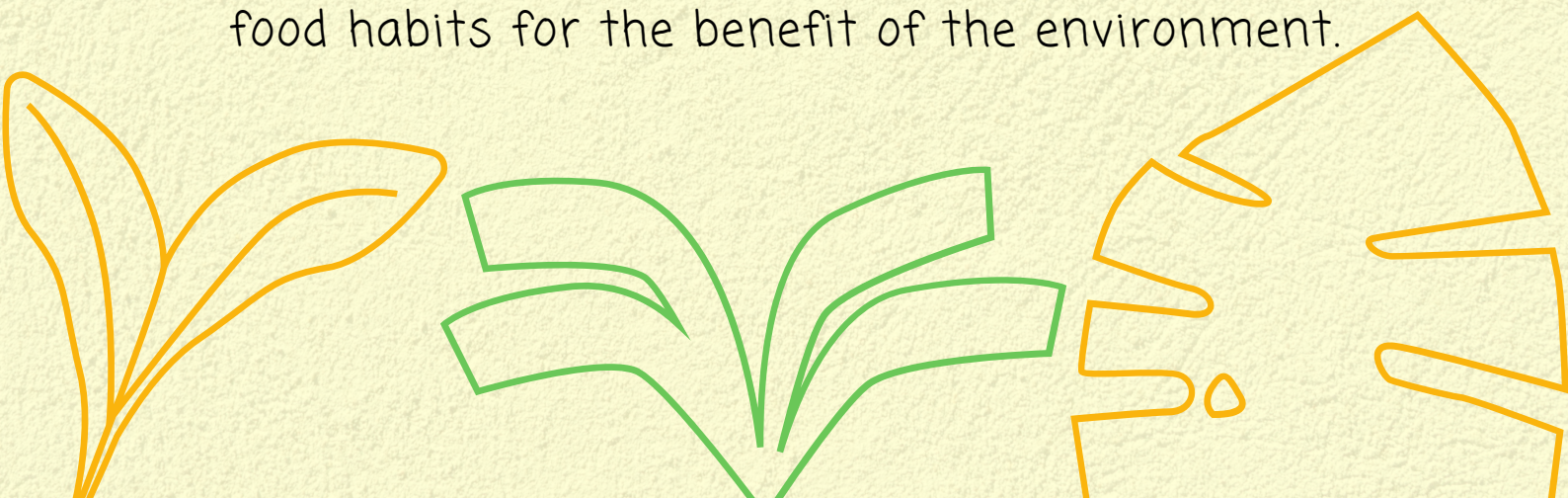
Is local food best?

What is a sustainable food source?

Do supermarkets care about waste?

How much food is wasted each year?

During this challenge, you'll find some answers to these questions and some helpful tips on how to change your food habits for the benefit of the environment.



FOOD

During this challenge, you will be asked to consider what food you eat, where you get it from and how much you buy compared to how much you eat.

Should we all go veggie or vegan?

The short answer is no.

There is no need for everyone to go full veggie, or vegan, unless we want to. However, there is a lot of research that says we should reduce the amount of meat and fish we eat!

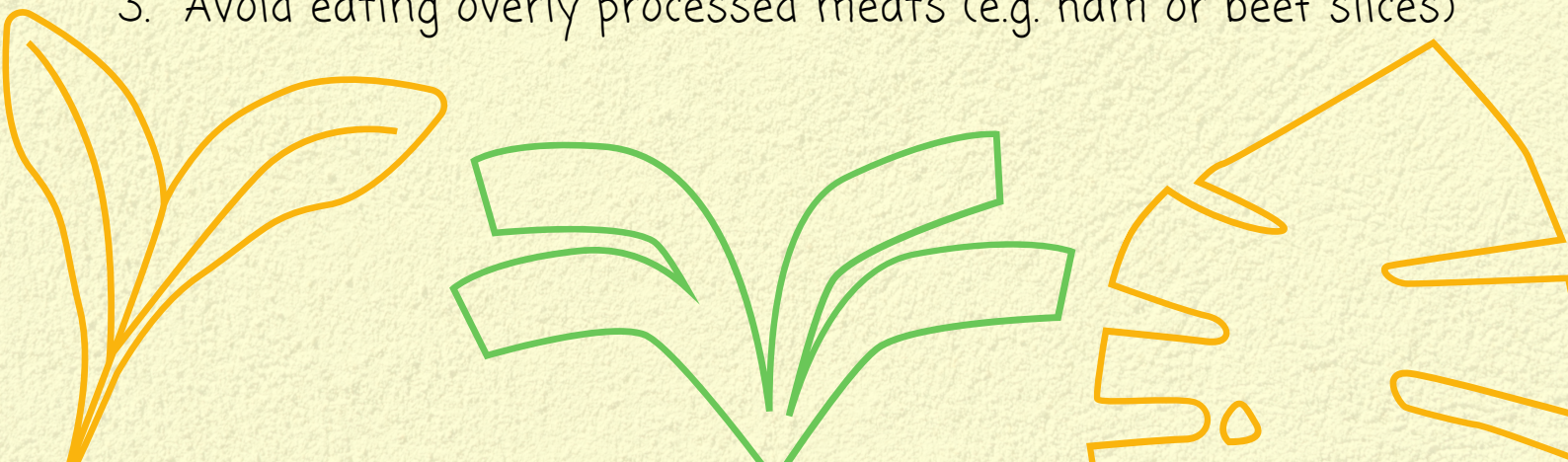
What is flexitarianism?

This is the middle ground between a meat-eater and a vegetarian. When someone cuts down on the amount of meat and fish they eat, and start eating a more plant-based diet, they are known as a flexitarian.

What food do you eat?

Whether you're doing it for 10 or 40 days, your first part of this challenge is to look at the amount of meat and fish you eat. You could go full veggie, or vegan, if you want to, or you could try one of these tips to reduce your intake:

1. Only eat meat or fish 3 days a week (there are some great vegetarian, or even vegan, recipes out there)
2. Only eat meat or fish for 1 meal a day (for example, having a salad for lunch and then chicken stir-fry for tea)
3. Avoid eating overly processed meats (e.g. ham or beef slices)



FOOD

During this challenge, you will be asked to consider what food you eat, where you get it from and how much you buy compared to how much you eat.

What is a sustainable food source?

This is food that doesn't contribute to climate change, doesn't damage the earth's natural resources, and doesn't affect the welfare of both plants and animals, but is still good quality, safe and healthy. It's easier to find than you think

Is local food best?

Not necessarily.

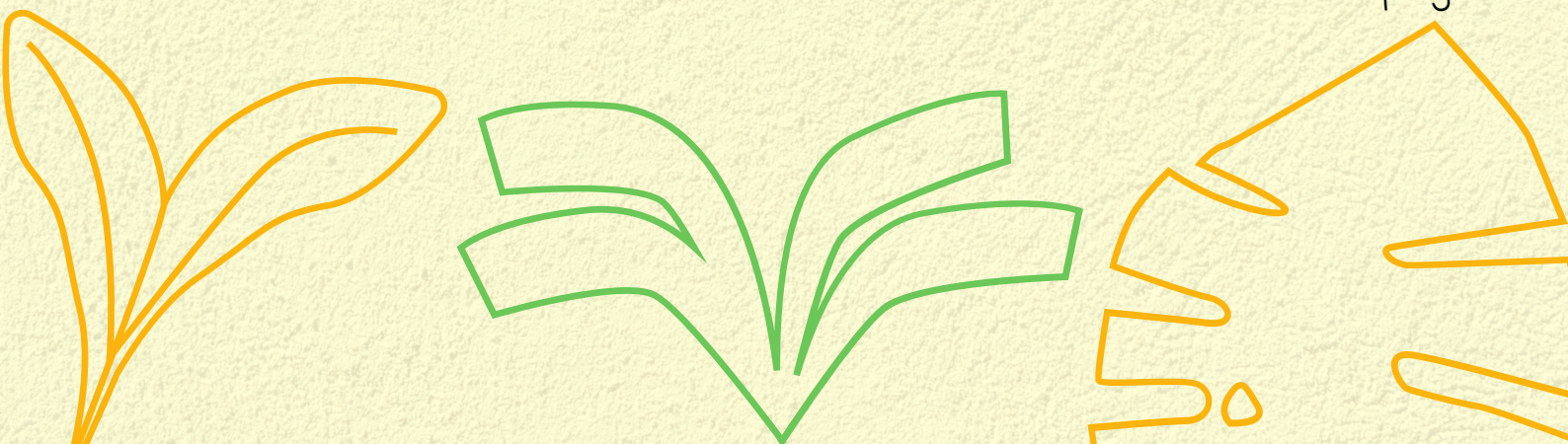
Travel/transport is usually only responsible for around 6% of the carbon footprint. It's only a real issue when food is flown in from other countries.

However, some shipped products may be better - local tomatoes grown in winter could be less sustainable than shipped from warmer places

Where does your food come from?

The second part of this challenge is to look at your food shopping whereabouts. Here's some ways to make your shop more sustainable:

1. Try your local grocers/butchers/bakery (whilst shopping local isn't necessary, it does support local farmers and businesses!)
2. Check where the food you buy is produced/whether it is sustainable (Giki is a great App to help with this)
3. Only buy fruit and veg that's in season, for example, don't eat tomatoes in winter (see the seasonal checker on the next page)



Not in season

In season

Fruit and Veg Seasonal Calendar

The letters are each month of the year, beginning with J=January

Apples, bramley	J	F	M	A	M	J	J	A	S	O	N	D
Asparagus	J	F	M	A	M	J	J	A	S	O	N	D
Beans, broad	J	F	M	A	M	J	J	A	S	O	N	D
Beans, runner	J	F	M	A	M	J	J	A	S	O	N	D
Blackberries	J	F	M	A	M	J	J	A	S	O	N	D
Blueberries	J	F	M	A	M	J	J	A	S	O	N	D
Brussels Sprouts	J	F	M	A	M	J	J	A	S	O	N	D
Cabbage, white	J	F	M	A	M	J	J	A	S	O	N	D
Cabbage, savoy	J	F	M	A	M	J	J	A	S	O	N	D
Cabbage, red	J	F	M	A	M	J	J	A	S	O	N	D
Carrots	J	F	M	A	M	J	J	A	S	O	N	D
Cauliflower	J	F	M	A	M	J	J	A	S	O	N	D
Celery	J	F	M	A	M	J	J	A	S	O	N	D
Cherries	J	F	M	A	M	J	J	A	S	O	N	D
Courgette	J	F	M	A	M	J	J	A	S	O	N	D
Cucumber	J	F	M	A	M	J	J	A	S	O	N	D
Kale	J	F	M	A	M	J	J	A	S	O	N	D
Leeks	J	F	M	A	M	J	J	A	S	O	N	D
Lettuce, cos	J	F	M	A	M	J	J	A	S	O	N	D
Lettuce, curly	J	F	M	A	M	J	J	A	S	O	N	D
Lettuce, iceberg	J	F	M	A	M	J	J	A	S	O	N	D
Peas	J	F	M	A	M	J	J	A	S	O	N	D
Plums	J	F	M	A	M	J	J	A	S	O	N	D
Potatoes	J	F	M	A	M	J	J	A	S	O	N	D
Raspberries	J	F	M	A	M	J	J	A	S	O	N	D
Rhubarb	J	F	M	A	M	J	J	A	S	O	N	D
Spinach	J	F	M	A	M	J	J	A	S	O	N	D
Strawberries	J	F	M	A	M	J	J	A	S	O	N	D
Sweetcorn	J	F	M	A	M	J	J	A	S	O	N	D
Tomatoes	J	F	M	A	M	J	J	A	S	O	N	D

FOOD

During this challenge, you will be asked to consider what food you eat, where you get it from and how much you buy compared to how much you eat.

How much food is wasted each year?

1320 calories, per person, per day, is wasted globally. That's almost 482,000 calories a year. 20% of this is down to us, the consumer. 6% of that is just Europe. The average European household wastes almost 25% of the food they buy.

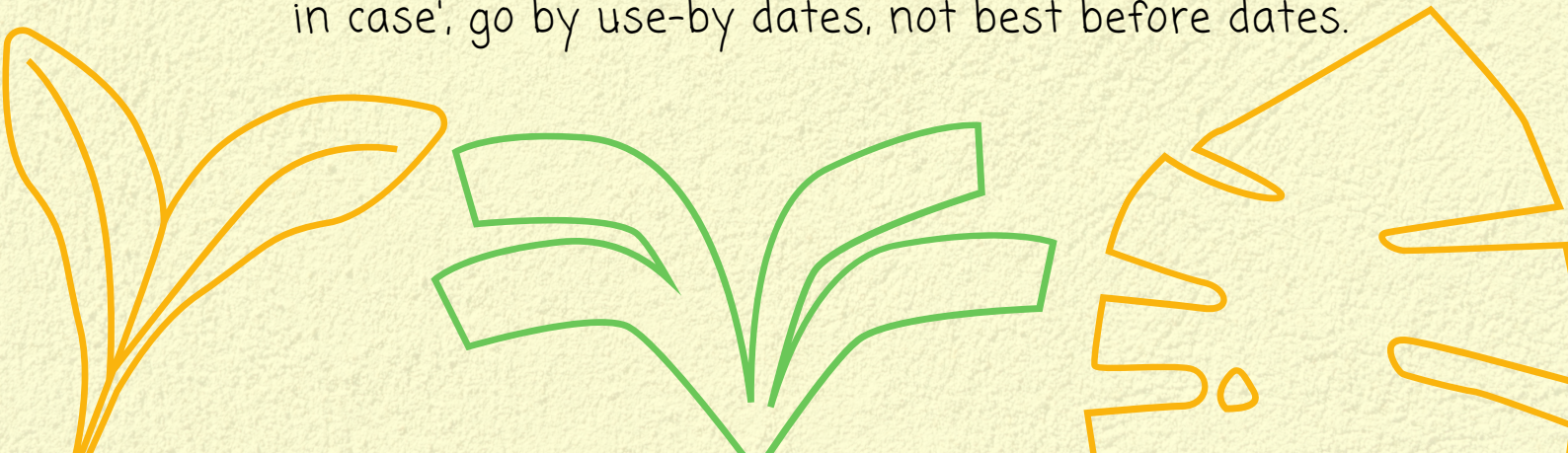
Do supermarkets care about waste?

Yes. In fact, most supermarkets will waste under 0.5% of its food. Supermarkets are actually a relatively small part of the food waste problem. The issue is how the waste food is disposed of. The best method is donated to a food bank, all other options are not great.

How can we stop wasting food?

So, it's primarily down to us to cut down on waste. And that's what we're going to do with the third part of this challenge. Here are a few things you can do:

1. Eat what you buy (it sounds obvious but we're actually really bad at it) and use your leftovers
2. Plan your meals each week, and check the fridge and cupboards before you shop
3. Only buy what you need - buy fruit and veg loose, don't 'stock up in case', go by use-by dates, not best before dates.



You might want to print this page
so you can write on it!

FOOD

Write in this box what
you're going to do for
this challenge



e.g. Are you going to give
up meat all together?
Will you do a weekly
meal plan?
Will you buy from a
local butcher?

Write in this box
how the challenge
went



e.g. It was great and I'm
going veggie forever...
I need a bacon sandwich
NOW
We've saved money and
wasted less food



Challenge 2

This challenge is all about the stuff we use everyday - Energy and Transport



Here are some of the questions we will be looking at in this challenge:

How much energy do we actually use?

What are the alternatives to fossil fuels?

How much energy does that appliance use?

Where do we get energy from?

Planes or boats?

Are fossil fuels bad?

Does sharing transport help?

During this challenge, we'll be looking at our energy and transport usage and some tips to make it more environmentally friendly.



Energy

In this challenge we'll be considering what and how much energy we use and how you can have better energy consumption. We'll also look at our travelling and transport habits.

How much energy do we actually use?

Around one seven-thousandth of the energy that hits the Earth. Doesn't sound like much, does it? Per person, per day, that's around 6 litres of petrol (enough to get you maybe 70 miles in a car). In Europe, we use almost twice the global average.

Are fossil fuels bad?

There's no doubt that fossil fuels have powered us into modern life, but we needed to stop burning it years ago. It takes decades to reverse the causes of climate change, and scientists have already told us that this is going to be a very dangerous 100 years.

Where do we get energy from?

83% is from fossil fuels (more on this in the next box). Less than 2% is from nuclear energy. Almost 4% is from renewable sources.

Almost all our energy supply originates from the sun.

What are the alternatives to fossil fuels?

For starters, there's the sun - solar panels covering 228 square miles of land could meet today's global energy needs.

Then there's wind - but most of that is inaccessible to us. Hydro power is also quite limited.



Energy

Here you will find out the average amount of Co2 emissions that these actions and appliances use each time.

Boiling a
1l kettle
= 70g



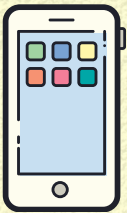
Sending a
text
message =
0.01g



A 500ml
bottle of
water = 160g



Using a phone
for an hour a
day for a year
= 1.25 tonnes



Sending a
letter = 200g



How much
energy does
that use?

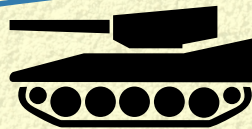
Having and
raising a
child = 373
tonnes



A pair of
nylon
trousers =
3kg



The Iraq war (6 years) =
600 million tonnes (per
year)



Energy

In this challenge we'll be considering what and how much energy we use and how you can have better energy consumption. We'll also look at our travelling and transport habits.

Does sharing transport help?

Definitely. However, sharing transport isn't always the easiest option. It's much easier to pick up our car keys and go. It's also easier to get around by car, so we need it to be just as easy to get around by bike, train, shared taxi and bus.

Planes or boats?

Boats are obviously a lot more energy efficient than planes, 30 times more in fact. But, it takes more time than a plane.

It all depends on the reason you are flying. For work? Does the company contribute to a healthy environment in other ways? For pleasure? Is it really essential?

So what can I do?

Well here are some things you can do throughout this challenge to cut your energy consumption back a bit:

1. Don't plug things in unless you're using them (this doesn't apply to everything, the fridge/freezer for example) and your phone doesn't need charging overnight, usually an hour or 2 will do
2. If you're shopping locally, you probably don't need to take the car - try walking there or bike ride with backpacks?
3. Use public transport wherever possible - planning journeys in advance and organisation is vital to this working well
4. Switch to a more ethical/environmentally friendly energy provider like Bulb, Ecotricity or Good Energy
5. Look into solar panels - they may be expensive but the benefits could outweigh the costs in the long run

You might want to print this page
so you can write on it!

Energy

Write in this box what
you're going to do for
this challenge



e.g. Are you going to
stop charging your
phone overnight?

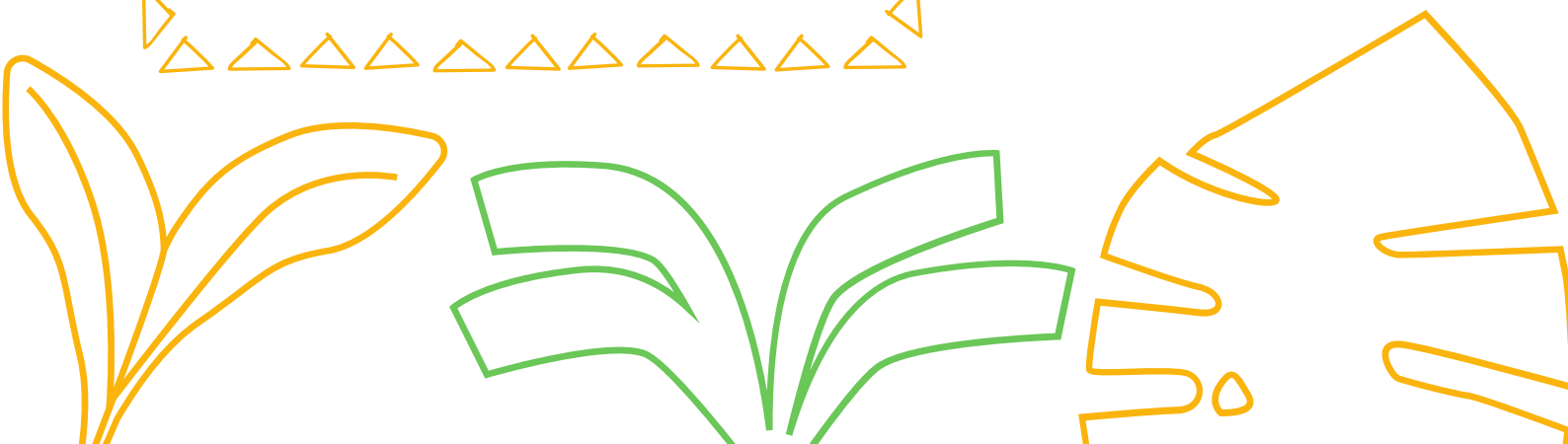
Will you swap energy
provider?

Will you walk/bike to
the shops?

Write in this box
how the challenge
went



e.g. My phone battery
health has improved
I'm healthier after not
taking the car everywhere
Solar panels are WAY out
of our budget right now



What does the Bible say?

In Jeremiah 2 God tells Jeremiah to say these words to the Israelites:
"I brought you into a fertile land, so you could eat it's fruit and produce.
But you came and made my land unclean, you made it uninhabitable"



I wonder how we have made God's creation unclean?

I wonder how you think we could clean it up?

I wonder what difference having a clean earth would make?

I wonder how long it will be before we are not be able to live on earth anymore?

I wonder what might happen if we couldn't live on earth anymore?



Challenge 3

The Problem With



Challenge 3

As you may have guessed, this challenge is all about single-use plastics.

Here are the questions we'll be looking at:

What is single-use plastic?

Why is plastic dangerous?

How much plastic has been made?

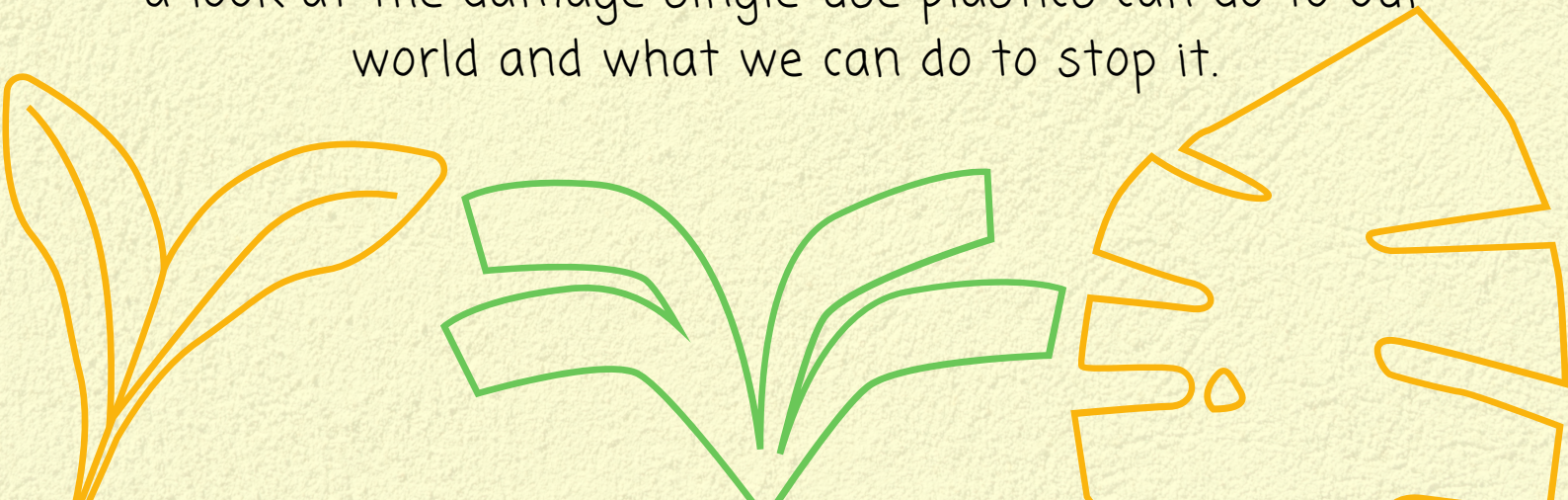
What is plastic made for?

Can plastic be recycled?

Where does all this plastic end up?

What is bioplastic?

During this challenge, we'll answer these questions, take a look at the damage single-use plastics can do to our world and what we can do to stop it.



Plastics

For this challenge we'll be looking at what plastic we use, how we can cut down and what we could use instead.

What is single-use plastic?

Exactly what it says on the tin.

Single-use plastic is plastic that is thrown away after one use.

How much has been made?

Roughly 9 billion tonnes. Half of this was made in the last 15 years. If this plastic was all cling film, we could wrap almost the entire earth up.

What is single-use plastic made for?

Packaging counts for over a third of all single-use plastics.

Other uses include plastic cups and straws, cotton buds, plastic bags, bottle caps, disposable cutlery, the list goes on...

Why is plastic dangerous to humans?

Most plastic is not biodegradable (it doesn't break down into a natural substance). However, it does degrade (break down) into tiny pieces over many years. So it never truly goes away. As it breaks down, it releases toxic chemicals that were added in the making process to shape or harden the plastic. These chemicals make their way into our food and water supply and then into our bloodstreams, and research suggests this could cause cancer, infertility, birth defects, impaired immunity and many other issues.

Plastics

During this challenge we'll be looking at what plastic we use, how we can cut down and what we could use instead.

Can it be recycled?

Most plastics can be recycled. In fact, some plastics can be recycled multiple times (although this sometimes requires new plastic to be mixed with the original). So yes, it can be recycled, but not all councils take plastic recycling because of associated costs.

Where does non-recycled plastic end up?

Plastic that isn't recycled will end up littered on streets, in landfill, and in our seas and oceans. About 8million tonnes each year ends up in the ocean and washed up on beaches, threatening wildlife everywhere.

Why is plastic dangerous to wildlife?

Because it takes so long to break down into tiny pieces, plastic that isn't recycled properly can be very dangerous to animals of all types.

The big danger that lots of people know about is six-pack rings, plastic bags and other plastics that can wrap around animals necks, or other parts of the body.

Another danger that isn't as well known is that plastic floating in the ocean looks like food to aquatic species, so they eat it. However, this often end up blocking digestive tracks and starving the animal.

Plastics

During this challenge we'll be looking at what plastic we use, how we can cut down and what we could use instead.

What is bioplastic?

Bioplastic is plastic that has been made from plant or other natural/biological material, instead of fossil fuel.

It's a big debate whether bioplastic actually helps the environment or not.

Pros: environment or not. **Cons:**

Because it doesn't use fossil fuels (petroleum) to be made, the carbon that is released when it's discarded is returning the carbon that the plants used to grow in the first place - so no new carbon

It's actually harder (for us) to recycle because it has to be taken to an industrial facility, which not all towns will have.

It also doesn't biodegrade quick enough for there to be much difference

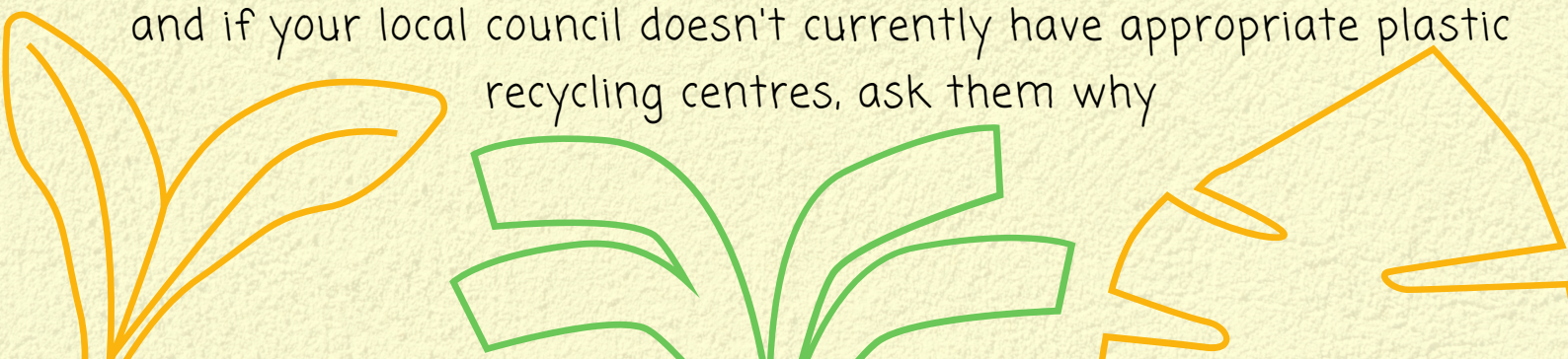


Plastics

During this challenge we'll be looking at what plastic we use, how we can cut down and what we could use instead.

Here's the ways you can get involved with this challenge:

1. Take bags with you when you go shopping - if you don't have any, you can get a bag for life at most supermarkets/shops.
2. Take a reusable bottle of water with you, instead of buying water at the shops.
3. Do you really need that plastic straw? If you need straws, there are paper and stainless steel ones available in most big shops
4. Buy your fruit and veg loose wherever possible, you can get reusable, netted bags to store it in until you get home (or see the next page for a step-by-step guide to make your own)
5. Try to buy products with no plastic packaging - buy shampoo bars and soap bars, instead of liquids
6. If you get takeaway drinks from cafe's, get yourself a reusable cup (these can be for hot and cold drinks) to take with you
7. Find out more about what materials your clothes are made out of - a lot of plastic is used in clothing (polyester, nylon, acrylic etc) and is a major source of plastic pollution
8. If you shop at a butchers, or the butcher counter at the supermarket, take your own containers to put the meat in
9. Get some beeswax wraps to replace clingfilm
10. Check out your local recycling guidelines, recycle plastic properly, and if your local council doesn't currently have appropriate plastic recycling centres, ask them why



Making your own reusable bags



1. Grab an old t-shirt and fold it in half.



2. Cut diagonally from the arm pits to the top of the shirt.



3. About 4 cm down, along the fold line, make a cut about 4 cm long (this is the handle).



4. Along the bottom, make lots of cuts, they should be spaced out 2cm and should be 3-4 cm long.



5. Open the bag up and start tying the strands together, 2 knots should keep it in place.

6. If you want some holes for better ventilation - fold the bag in half, and make small slits down the folded line.



7. Then fold it in half again and do the same, being careful not to cut too close to the previous slits.

8. Open it up and there's your new veg bag



You might want to print this page
so you can write on it!

Plastic

Write in this box what
you're going to do for
this challenge

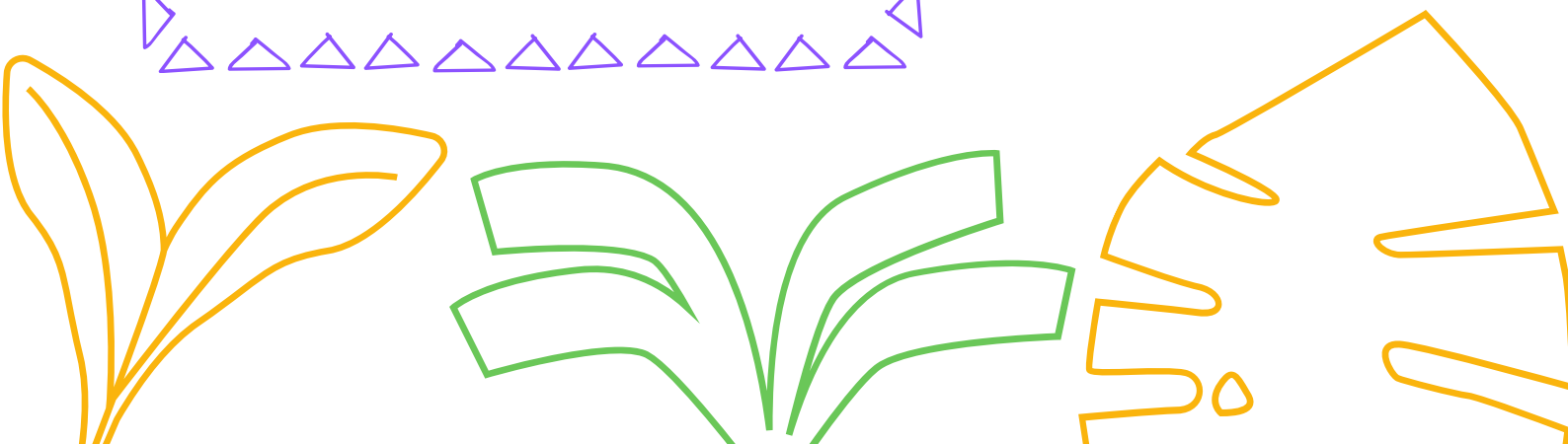


e.g. Will you use reusable
bags for shopping?
Are you going to take your
reusable bottle/coffee cup
with you?
Will you start using less
plastic packaged products?

Write in this box
how the challenge
went



e.g. We've got our
council to set up a
plastic recycling
centre
Making beeswax
wraps was fun
Soap bars are not
for me



Challenge 4



This challenge is all about our shopping habits!



In this challenge we'll look at these questions and think about how we can shop more sustainably:



What can I do with old clothes?

What happens to old phones?

Why is there plastic in my clothes?

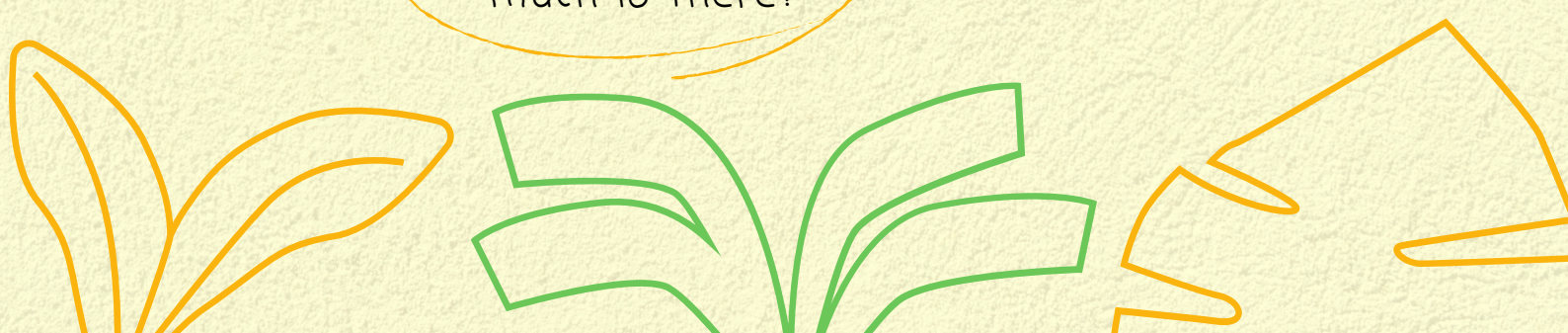
What makes a shop ethical?

5 facts about sweatshops

What is fast fashion?

What is textile waste and how much is there?

We'll be focusing on non-food related shopping, to see more on food shopping check out the food challenge.



Shopping

During this challenge we'll be looking at how and where we shop, and what we shop for. Plus we'll think about why we shop and how we can create better shopping habits.

What is fast fashion?

This is the idea that clothes need to be made as quickly and cheaply as possible. Unsurprisingly, these cheap and quickly-made clothes are rarely good quality, so they need replacing much more often. This means the consumers (me and you) end up stuck in the fast fashion cycle, buying cheap clothes that don't last over and over again. Fast fashion, and the fashion industry in general, are one of the main reasons for textile waste.

What is textile waste?

Textile waste is simply anything that has been woven, spun or knitted from natural or artificial fibres and thrown out as waste. Things in this category could include: clothes, shoes, curtains, bags, bedding, towels etc.

How much textile waste is there?

In the UK, we waste over 206,000 tonnes of textiles each year. We are currently the 4th largest producer of textile waste in Europe. Italy is the largest in Europe, with over 400,000 tonnes being wasted a year.






Shopping

During this challenge we'll be looking at how and where we shop, and what we shop for. Plus we'll think about why we shop and how we can create better shopping habits.



So, the first part of this challenge is to get out of the cycle of fast fashion and stop adding to the textile waste problem.

Here are some ideas:

-  1. Don't buy anything new for the length of this challenge (food is an exception - we need food to live)
-  2. Mend your clothes if they rip, or repurpose them (just like the t-shirt veg bag in the plastics challenge)
-  3. If you NEED new clothes, look in charity shops for second-hand stuff (you could save money as well as the environment - bonus)
-  4. Try swapping clothes with friends and family, or selling them online - one persons trash is another persons treasure
-  5. Organisations that support people who are homeless or refugees may be asking for clothing donations - try there



Shopping

During this challenge we'll be looking at how and where we shop, and what we shop for. Plus we'll think about why we shop and how we can create better shopping habits.

What makes a shop ethical?

Ever thought about who makes your clothes? What about where they are made, or how? Well, all of this adds to the discussion of whether our clothes are ethical or not. When we buy fast fashion, the clothes are mostly made in sweatshops, mostly by women and children who are working in dangerous buildings. The big bosses of the companies that sell clothes made in sweatshops are usually making lots of money and the workers get paid very little.

So where can I shop?

Shops that don't use sweatshops are usually more expensive because they pay their workers a decent wage, and use better quality materials. Ethical highstreet shops include Marks and Spencers, Lush, John Lewis and The Co-op.

So where can I shop?

Really, you can shop anywhere. Until there are opportunities for the workers in sweatshops to get better paid work and better working conditions, boycotting sweatshop-clothing stores just puts the workers in different dangers, like worse poverty from unemployment.



Shopping

During this challenge we'll be looking at how and where we shop, and what we shop for. Plus we'll think about why we shop and how we can create better shopping habits.

85% of workers in sweatshops are young women aged 15-25 years old

5 facts about sweatshops

On average, sweatshop workers only make an income of £144 a year.

Workers are often locked in the factories, forced to work through the night.

There is an estimated 250 million kids working in sweatshops worldwide.

1/6 of the children in the world are employed at sweatshops

Why is there plastic in my clothes?

Look at the label on your t-shirt. Does it say 100% cotton, or does it say 95% polyester? The simple answer is that plastic is cheaper than natural materials like wool and cotton, so it is used in a lot of clothing now.

Shopping

During this challenge we'll be looking at how and where we shop, and what we shop for. Plus we'll think about why we shop and how we can create better shopping habits.

Old clothes and old phones?

Ever wonder where your old clothes end up? What about your old tech like phones and laptops? Well, mostly, clothes that aren't recycled end up in landfill and with the amount of plastic in clothes now, and if you read the plastics challenge, you'll know that it never really breaks down.

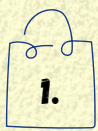
On average, we buy a new phone every 2 years. Most of our old tech isn't recycled properly, so they end up in landfill as well, or sometimes in 'Electronic Graveyards' in places like Africa.

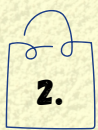
But tech can be recycled. There are loads of companies that let you trade your old phone or laptop in exchange for some cash.





Shopping


The second part of the challenge looks at why and how we shop. Here are 5 more ideas to get you going on the shopping challenge:

 **1.** Only buy something that needs replacing (your tuppaware might not be eco-friendly, but get as much use out of it as you can)

 **2.** Think about where you are shopping more, do they pay their garment-makers a fair wage? Do they have good working conditions? Are they ethical?

 **3.** Look at the materials that were used when you buy clothes - try not to buy too many clothes with plastic in (if you go to school, maybe see if your school will look for a more sustainable school uniform)

 **4.** If your tech breaks, see if it can be fixed - if not, find a shop that lets you exchange it, or recycle it properly

 **5.** Take your own bags with you when you go shopping (we covered this in the plastics challenge as well)



You might want to print this page
so you can write on it!

Shopping

Write in this box what
you're going to do for
this challenge



e.g. Will you buy nothing
new?

Are you going to shop
second-hand?

Will you recycle your tech
properly?

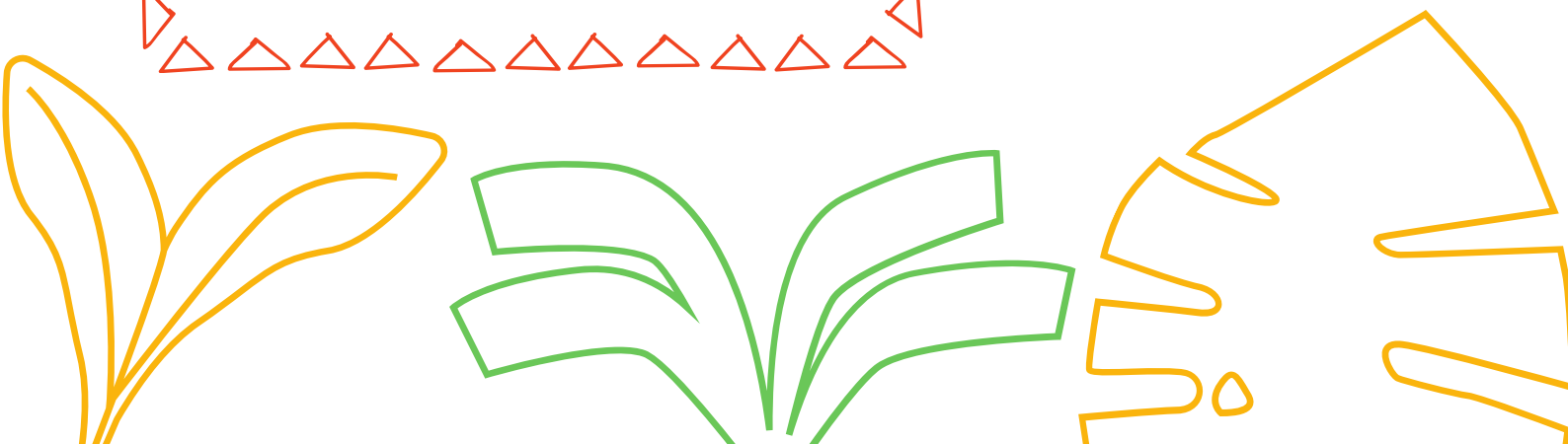
Write in this box
how the challenge
went



e.g. Our school is going to
change to sustainable school
uniforms

I saved money by not buying
loads of new stuff

Selling old clothes is too much
of a hassle, I'm taking them
to the charity shop



You might want to print this page
so you can write on it!

You Made It!

Write in this box how this Lent has made
you feel and what difference the 4-Zero
challenge has had on your life



Extra's

So we've thought about food, energy & transport, plastics and shopping. What a way to start you off. Here's some of the resources that were used to create this resource, some places to go for more information and some other lifestyle hints and ideas:

1. A lot of the information about food and energy/transport was found in this book - There is no planet B. It's a real easy book, full of answers to lots of the questions we all have
2. Head to www.giki.earth and take their quick survey, you'll get a score and a more in depth look at how you personally can help the environment
3. Check out the Giki app for quick, eco-friendly choices whilst shopping for food
4. Change your search engine to Ecosia, they plant trees when you search for things
5. Look into your bank, are they ethical? If not, maybe look at switching to an ethical bank, like Triodos, Starling, and The Ecology Building Society. These banks don't invest your money in things that harm the earth, like Fracking and Arms & Military tech
6. Some of the websites used to get information were:

10 Facts About Sweatshops - Change in Sweatshops (weebly.com)

Everything you need to know about plant-based plastics | National

Geographic

In less than 70 years, we've made enough plastic to wrap the entire world in cling film (ibtimes.co.uk)

What does the Bible say?

In Genesis 9:3, God tells Noah that everything that lives on the earth will be food for us to eat. "Just as I gave you the green plants, now I give you everything".

Then God sends a rainbow across the sky and says "this will be the sign of the promise between me and the earth"

And then, in the New Testament, Paul tells us that "Everything that God made is good. Nothing that God made should be refused if it is accepted with thanks to God" (1 Timothy 4:4).

I wonder why God gave us all the plants and living things to eat?

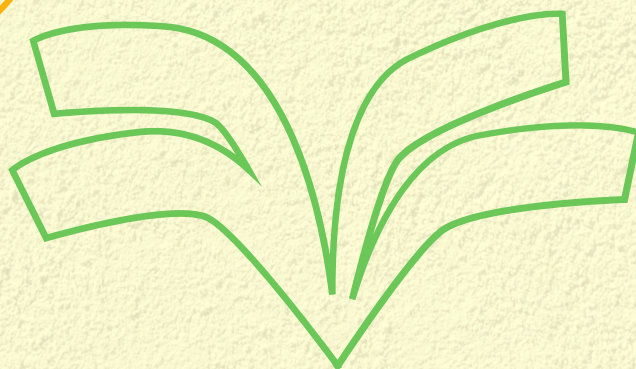
I wonder why God trusted us to look after the world?

I wonder how these challenges have changed the world?

I wonder how you feel after taking part?



**Can you make
something using all
the colours of the
rainbow, but without
buying anything new?**



**Thank you for joining the Lent
4-Zero challenge
You are an eco-warrior!**



If you would like some more information, to share your stories from the challenges, send us some photos or just have a chat about the environment, send me an email on:
amy.shephard@methodistyouth.org.uk

