Name:

Group name:

Name of your area: Version X : April 2013

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Designed by …

TRANSITION TOWN
TOTNES

Run by …

(Insert co-ordinating group's logo)

Funded by …

(Insert funder's logo)

Transition Streets
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The Practical Action Plan

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Contact (your local group) (phone number) <email address> (website)

1. Getting started

The Practical Action Plan

The Practical Action Plan

Introduction

Welcome to the Transition Streets programme

You are about to embark (or for some, to continue) on your journey to a lower energy lifestyle. This will help you save money, reduce your carbon dioxide (CO_2) emissions, and hopefully help minimise your household's reliance on fossil fuels.

The support of your fellow group members, and people in other Transition Streets teams, will help keep you motivated and make the experience pleasurable as well as effective.

This workbook has been developed to help you, and the people you live with, to make simple, practical changes to your home and to your habits. It brings together in one place over 35 money-saving actions. Each action gives clear, specific advice about how to carry it out including lots of useful hints and tips.

It is not the intent of this programme to duplicate all the sound, practical advice that is already available, but rather to bring it together into one simple place with a very local feel. Other sources that have been used are referenced for further information.

Who's running this?

The programme is offered free to residents of (your area) thanks to funding from (funder(s)).

Transition Streets was created and first run by Transition Town Totnes.

In (your area) it is run by (your group & website).

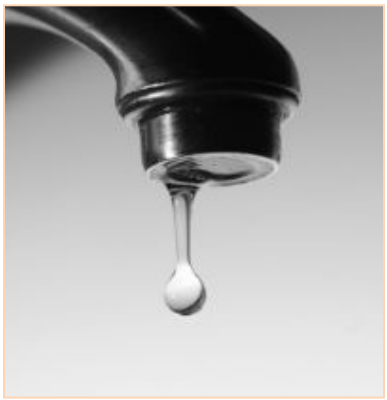
(insert funders logo here)

How it works

The programme is based around 7 group sessions. The first and the final sessions start and close the work, and the other five cover areas of our lifestyle where we can easily reduce energy use, and save money: energy use in the home, water, food, waste and transport.

Usually the group meets about every 2-4 weeks for 2 hours, and people in the groups take turns to host this at their home. We send a facilitator to help you with the first meeting, and after then people take turns to facilitate each session, so that it is truly a group effort and not all driven by one person. Ideally, the host is not the co-ordinator too, or it's a bit too much to take on.

It is important that the co-ordinator for the session keeps good time, as it's easy to get off track, and not get through everything you mean to. At each of the 5 core sessions, the group can follow the suggested meeting outline provided at the end of this section. It's also useful to have a note-taker at each session and to keep a record of decisions.



1.3 THE FIRST SESSION

The Practical Action Plan

The first session

The facilitator that we provide will help you get started. We suggest you take a look at the rest of this workbook and start to get familiar with the sections and the layout. Once you've done that, work through the following sections with the help of the next few pages:

- Agree the group schedule for the rest of the sessions.
- Share contact information.
- Agree some guidelines so that your group will work well together.
- Think about your main objectives.
- Complete the initial evaluation form.
- Find out about other support available.
- Review the agenda for future sessions.

A quick note on the cost and carbon saving estimates... each action has a set of boxes at the top that give an indication of the potential costs, savings, effort and CO_2 savings. These should be seen as an indication only and useful for comparing different actions. They are based on various credible sources of data, including the Energy Saving Trust and Waterwise.

Where we have quoted a specific potential cost saving for an action, this is based on average prices at the time. These can vary widely over just a few months, so please see these as indicative rather than precise.

Some actions, particularly related to food and transport, are difficult to estimate at all due to the wide range of factors involved. However, where we can, we will convert actions into both CO_2 and financial savings and report back the overall results. More information is available on request.

Notes:

Transition Streets

1.4 AGREE A GROUP SCHEDULE

The Practical Action Plan

Important information

Things to decide up-front (and record on the schedule below):

1. How often will the group meet?
2. Where will it meet?
3. Who will be the co-ordinator for each meeting? The co-ordinator will run the meeting and will ideally call everyone before the next session to confirm attendance.

It is also useful to share your contact details, which you can log over the page.

Date	Time	Co-ordinator	Venue

Transition Streets

1.5 SHARE GROUP CONTACT DETAILS

The Practical Action Plan

Name	Phone	Email	Address

Notes:

1.6 YOUR GROUP AGREEMENT

The Practical Action Plan

Suggested ground rules for the group

It is important to agree some guidelines for how your group will work, so it will be a more satisfactory experience for everyone. The following agreements are suggested to help ensure the overall success of your group.

They aim to support the unity and stability of the group, and to create an atmosphere of mutual support and trust. It is important all group members collectively agree to these at your first session. Add or amend items as required.

Commitment: We commit to attend all the sessions where possible and to let the other group members know where not possible. Someone else can attend in our place if we cannot come, but it is important that s/he knows what's been discussed previously. We also commit to have read the relevant workbook section before each session and to seriously consider taking on some actions each time.

Confidentiality: We agree to respect the privacy of any personal information shared within the meetings and to not discuss this information outside the group in a way that would mean a person could be identified.

Punctuality: We agree to arrive in time for each session to start promptly so that everyone can benefit from the full two hours.

Respect: We will endeavour to ensure that the time is shared equally between team members in terms of speaking and listening, and that differences of opinion can be allowed for and respected. Our abilities to change will vary, whether it be related to income or time, age or disability.

Support: Where possible we will offer practical and emotional support to any team member who is experiencing difficulty in attending the sessions (or achieving the actions!). If we encounter problems in maintaining the team, we will ask for support from (your group name).

The Practical Action Plan

The Transition Movement

(Edit this page to include some reference(s) to your local community group)
The Transition Streets programme is just one part of the worldwide Transition Towns movement in response to the challenges of reducing carbon emissions, climate change and economic uncertainty. Started in Totnes, Devon, in 2006 there are now more than 1,000 Transition initiatives in over 40 countries, and the movement is growing rapidly. Local Transition groups focus on practical steps to make communities stronger and more resilient through activities such as:

- **Food-growing groups** - Transition groups often start with growing food on allotments, community gardens or garden share schemes. These lead on to new food-related enterprises such as farmers markets and co-operatively owned businesses such as bakeries, breweries and food box schemes.
- **Community-owned energy** - Renewable energy co-operatives offer huge potential for communities to create cleaner electricity for homes, schools and businesses, generating income and providing a safer place for investments, as well as encouraging more efficient and sustainable use of energy.
- **Local Economy** - Transition groups aim to create new local jobs and livelihoods by building vibrant, viable new enterprises that keep money local and boost resilience.

All Transition groups are open and would welcome your involvement.

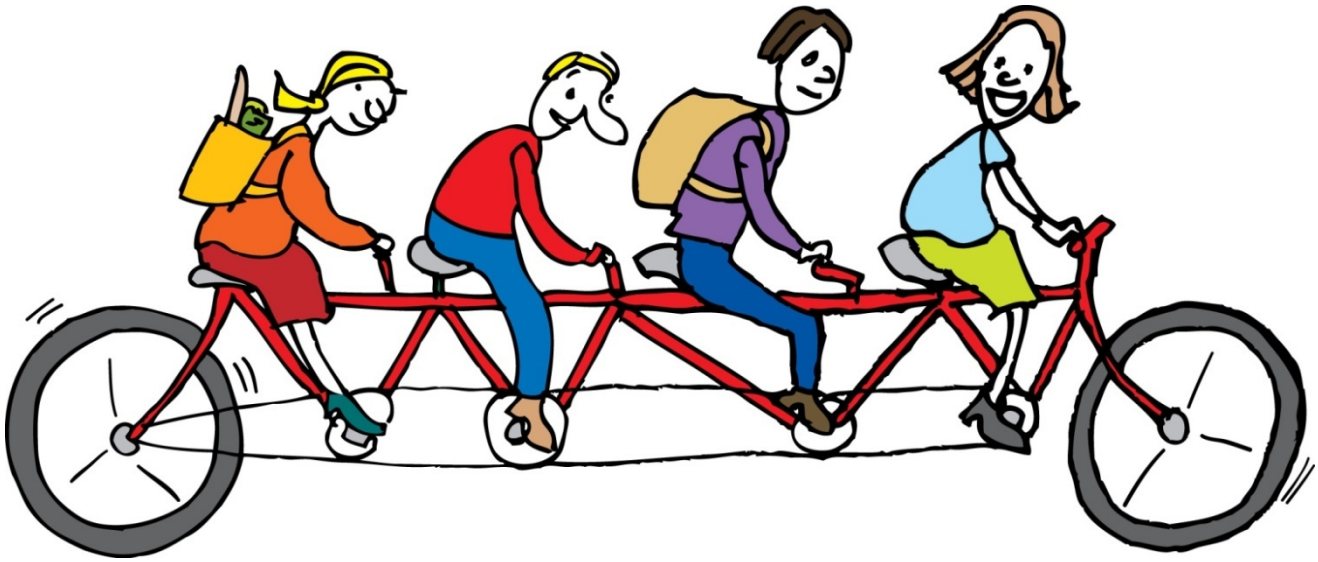
Section 7.5 provides more information about (your community group), which is organising Transition Streets in (your area), and explains how you can participate in their activities.

Website

If you have internet access you will be able to visit (your group's website)

The website provides general information about the programme, stories from existing groups, the schedule of local events and some frequently asked questions and answers.

You can also visit the Totnes website, where the project first ran, for useful advice www.transitionstreets.org.uk.



Contact us

Please write down the contact details of your local Transition Streets Co-ordinator here (usually this is the person who led your first meeting):

Your co-ordinator is willing to give advice to groups if you are concerned, frustrated or perplexed about the way your group is operating.

The Practical Action Plan

Suggested agenda

This suggested agenda can be used at the next 5 sessions. You can adjust it to suit yourselves: e.g. by spending more time on 'The Bigger Picture' discussion topics, and less on discussing the actions.

For the next session on energy, try the proposed timing below and see how it works for the group. Given that you are not starting your action plan until then, the first agenda item is not needed for the next session. It's a good idea to nominate a time-keeper and someone to take notes.

Section	Timing (2 hours total)
Review actions & progress from previous session	15 minutes
Discuss the facts & the actions for this session	70 minutes
Write personal action plan	10 minutes
The Bigger Picture – discussion	20 minutes
Re-confirm next meeting	5 minutes

Before next meeting

At the end of your first meeting, look ahead. Your next meeting is on Energy. Between now and then try and do the following things:

- If you have borrowed one, install the electricity monitor and start having a look at what it tells you
- Read the Energy chapter and make notes of any changes you want to make in your home.
- Be aware of how you use energy (electricity and gas) at home;
  - do you spot any energy being wasted?
  - what is your thermostat set to?
  - how much does energy cost you each year?

2. Spend less on energy

Today’s meeting is on **saving energy**

But first!

Discuss how you all got on with the actions suggested at the end of your first meeting

Did you manage to read Section 2?

Have you already decided on any actions?

Are you more aware of how you use energy?

Notes:

2.1 SPEND LESS ON ENERGY

The Practical Action Plan

The facts

As you know, energy prices are generally going up rather than down. Using less electricity, gas or oil in your home will save you money. Often we waste a lot of energy without realising it, and there are generally significant savings to be made – without having to go without. Each action in this section of the workbook has a 'Potential Savings' section. But it's not just you and your pocket that will benefit.

Using less energy will also reduce the amount of carbon dioxide (CO_2) emitted from fossil fuels as they are burnt, either in your home's boiler for your heat and hot water, or in a power station for your electricity. We all need to reduce our CO_2 emissions (our carbon footprint) if we are to minimise the potentially devastating effects of climate change.

The people feeling the greatest impacts first are not here in the UK – they're living on flood plains and low-lying islands, in hurricane-prone countries and in areas of drought and famine. Each action you take will have a positive impact on your global community.

Finally, there is a finite supply of fossil fuels on this planet and our current supply of them is dwindling.

Worldwide oil reserves are going into decline – while demand is growing. Most of the 'easy' oil has been found, which has led to measures such as fracking. Those who minimise their reliance on coal, oil and gas now will be less exposed to higher prices and supply restrictions in the not-too-distant future.

Being more energy-efficient in your home is one of the easiest ways to reduce your costs, your personal contribution to climate change and your vulnerability to fluctuating and increasing energy prices.

Notes:

So what can you do about it?

Each of these actions can significantly reduce the amount of energy a household typically uses. Some will cost you little or nothing, some can be paid for using grants and some will cost you money (but this should be offset by the reduction in your energy bill sooner rather than later).

2.2 Know how much you are using

2.3 Be a real turn off

2.4 See the light

2.5 Appliances

2.6 Control your heat

2.7 Lagging

2.8 Draught-proofing

2.9 Loft insulation

2.10 Cavity-wall insulation

Each action is explained on the following pages. In your group, have a brief chat about all of them and then decide which ones you want to tackle and when. Record your own action plan in 2.11 (maybe just 1-2 actions for now).

The actions listed above are the basic, but most cost-effective, things you can do in your home. At the end of the section are several other actions that you may wish to consider, once you've done the basics.

Note: for all sections the following estimates are used

- Costs/savings: Low (Less than £10), Medium (less than £100), High (more than £100) - then used to imply related CO_2 savings
- Effort: Low < 2-3 hours, Medium - about a day, High - a day +
- Estimates based on a 3-bedroom semi-detached home

Transition Streets
2.2 KNOW HOW MUCH YOU ARE USING

The Practical Action Plan

Cost: none | **£ savings: med** | **Effort: low** | **CO_2 saved: med**

The energy challenge

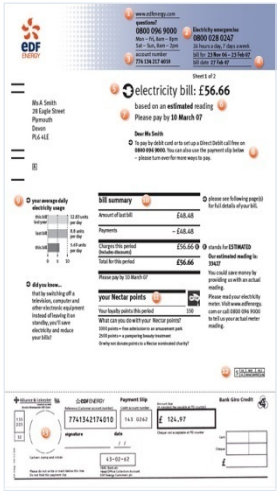
Most people are not very aware of how much energy they are using (i.e. the number of 'units'). Frequent price changes confuse the picture, as your bill could go up even though you are actually using less. Even if you take a look at your electricity or gas bill, things like kWh (kilowatt-hours) may not mean much to you.

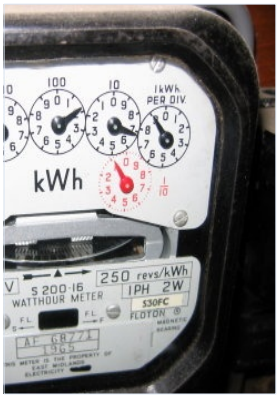
Often the readings shown on bills are estimated and may not be correct. If we pay by direct debit, our regular monthly payment may not reflect how much energy we actually use, leading to a shock when this gets adjusted upwards. If we don't know how much we use, then we won't be able to tell if we are using less, or to plan how we can. Nor will we know if we could get a lower price from shopping around.

Potential solutions

To help reduce your energy use, you first need to measure it so you will be able to tell if it goes down. There are two ways to monitor your energy use:

1. **Read your own electric & gas meter(s)** regularly and keep a record. There's a wide variety of meters around - older ones with numbers on dials or newer digital versions. Read the numbers from left to right. This tells you how many units (kWh) of gas or electricity you have used. These units can mean different things depending on whether it's electricity or gas, and if it's the latter, depending on the type of meter (whether or not it measures in 'metric' gas units!) See next page.
2. **Use an electricity monitor** - you can buy simple, safe devices that easily clip onto your meter's cable. They give you up-to-the-minute info about how much electricity you are using & how much it is costing you (along with CO_2 emissions info.).





Transition Streets

2.2 KNOW HOW MUCH YOU ARE USING (Cont'd)

The Practical Action Plan

Your savings

Studies have shown that people who monitor their electricity-use typically see reductions of around 10% per year (average £60) just by being more aware of when things are on and how much each appliance uses.

Notes:

Save around £60 of your electricity costs per year.

Next steps, hints & tips

- Start recording your gas and electricity meter readings.
- Write them down at same time each week or month.
- Subtract the previous reading from the new one to see how many kWh you have used (see over).
- Compare it to previous periods to see if and why it's changed.
- Call your supplier or check their website if it's not clear how to read your meter(s).
- Or invest in an electricity monitor. They cost about £30-£50 (see over).
- www.energysavingtrust.org.uk has an online Home Energy Check which gives a personalised report of potential savings for your home.
- You could also call them on 0800 512012 and ask for a paper version.
- Once you know your usage, shop around for the best prices and consider 'green' energy – see final section.

Yes but... I can't read my meters. If you are disabled, chronically sick or of pensionable age you can ask your supplier to read your meter every 3 months. You could also be eligible for the repositioning of the meter. This should be free of charge.

Energy meters

Some brands of energy monitor currently on the market

- OWL Energy Monitor (about £33)
- Efergy Smart Meter (about £45)

Online shops

- www.nigelsecostore.com
- www.ethicalsuperstore.com
- www.maplin.co.uk
- Also eBay

When you first install your monitor, you'll probably wander around the house turning things on and off, and marvelling at the information at your fingertips! It's quite addictive.

They're possibly also available in local shops – if you find them around here or online cheaper, please let us know and we can spread the word. Some energy suppliers give away free monitors with certain tariffs – call yours and ask. Can your community group arrange to lend out energy monitors? Or do you know of others locally who can provide this service? If, so provide details. You could also borrow or buy a monitor between you and your group, and use it for a week each in turn. This gives you time to find out what each appliance/light uses, and your typical daily use.

Knowing what different appliances are using, you can start taking steps to reduce consumption, and this will show up in the weekly and monthly electricity meter readings, even when you don't have the energy monitor yourself.

You can also buy a simple plug-in appliance monitor for about £15, which you plug in between your appliance and your wall socket (like a plug adaptor you take on holiday) to see how much energy it's eating up. Use this to go around the house noting down how much power any appliances with a plug use when switched on and when they are on standby. Do this once and you will have a much better idea of where you are wasting energy, and where you are not.

Sample meter-reading record

Date	Electricity Meter Reading	Usage
01/12/2014	1037	n/a
08/12/2014	1101	64
15/12/2014	1199	98
22/12/2014	1298	99

Know how much you are using

Understand how to measure energy use:

Kilowatts (kW) measure *power* – the rate at which we use energy. Kilowatt hours (kWh) measure *energy* consumed. Power is akin to speed , and energy is akin to distance - as we all know, the faster you go, the more quickly you cover a given distance. Similarly, the more power you use, the faster you consume a given amount of energy. So, if you consume power at 1kW, you will have consumed 1kWh after one hour. The units on your electricity meter measure kWh: one electricity 'unit' is equal to one kWh.

Approximately every 40W of power you use on standby (i.e. being used 24 hours a day) consumes 1kWh a day, which costs about £50 a year. Many houses typically use 200W on standby, or about £250 a year.

Gas is more complicated because the "units" that the meters measure are for a volume of gas. The number of kWh per gas unit depends on whether your meter is metric or not – it will say on the meter if it is a metric one. Your gas bill will show the conversion factor your supplier is using.

For old non-metric meters, one gas unit = 31.375kWh
For newer metric meters, one gas unit = 11.151kWh

Transition Streets
2.3 BE A REAL TURN-OFF

The Practical Action Plan

Cost: none	£ savings: med	Effort: low	CO_2 saved: med

The energy challenge

Leaving lights, TVs, computers and radios on when there's no one in the room is an obvious waste of money and energy. But even when we switch things off some appliances go to standby mode, which can still consume a lot of energy. Even phone chargers, if left plugged in, will use a little energy, whether or not you're charging your phone.

Although average standby consumption of new products is going down, households are being filled with more and more electronic gadgets, most of which don't need to be on standby.

Unplugging one electric toothbrush or phone charger might not seem such a big deal: but what about that DVD player... and the microwave, and the printer, and the games console, and the digital radio? This adds up to significant savings over a year, if you have a lot of equipment on standby, particularly if they are older appliances.




Solution

Turn things off when you leave the room for more than a few minutes. Turn them off at the plug when not in use. If you need to leave lights, such as an outside light, turned on, use an energy-efficient bulb. You can buy remote-control 'standby savers' from about £10. They cut power to all connected devices with the press of a single button.

Yes but... I can't turn off my TV's set-top box. Many Freeview boxes can be turned off but the boxes which can record programmes must be left idling around the clock, costing you up to £15 per year. Integrated digital TV sets or the more expensive models generally use less energy on standby.

Your savings

In a typical home, turning your appliances off rather than using standby can save 9% to 16% (£54 - £96) off your annual electricity bill.

Saves £54 - £96 off an average electricity bill per year. Costs nothing!

Notes:
Which appliances in your home use the most electric power ?

How can you cut down the amount of energy they use ?

Next steps, hints & tips

- Talk to everyone in your home – try a competition to help motivate them with a share of the savings!
- Keep a scoreboard for every time someone finds a light or appliance on, with no one there.
- Buy a standby saver (see providers on page 2.6)
- You can use an energy monitor to see exactly how much power each item is using when on, or in standby .
- Try using things less. Dry clothes in the sun, not the tumble dryer, turn lights off in the daytime, only wash full loads etc.
- Choose low-energy appliances. Laptops use less than PCs, and tablets use 70% less than laptops. Go for A++ rated household appliances whenever possible.

More info: download 'Rise of the Machines' from www.energysavingtrust.org.uk – fascinating insight into the growth of energy-using products in the home since the 1970's.

Transition Streets

2.4 APPLIANCES

The Practical Action Plan

Cost: med	£ savings: med	Effort: low	CO_2 saved: med

Energy challenge

Appliances are responsible for a significant proportion of a typical home's electricity bill:

- **Televisions, set-top boxes, digital TV recorders, DVDs and DAB radios** combined can be responsible for around a fifth of a typical home's electricity bill.
- **Computer equipment** - household computers, printers, monitors and laptops on average make up around a further 13%.

Solution

When you need to replace an appliance, you will have an opportunity to replace it with a more efficient one.

Energy-ratings labels on appliances are generally given to products on the basis of size categories. The idea is to enable you to compare two similarly-sized products.

This means two differently-sized appliances with the same energy rating may use quite different amounts of electricity. For instance an A-rated 180-litre fridge-freezer could cost only £39 a year to run whereas a larger 525-litre fridge-freezer with a better A+ rating would cost £51 a year to run. That's £12 a year more for a fridge-freezer nearly three times the size.

- **Use your appliances less**, e.g. doing full loads of washing or dish-washing, using a clothes line to dry clothes.
- Cooking appliances will be discussed in section 4.8.

Yes, but where should I start? And how much could I save? See http://www.energysavingtrust.org.uk/domestic/content/home-appliances.

Also remember to take electrical appliances to the Household Waste Recycling Centre (see Chapter 5) – they can recover the metals within them.

Transition Streets
2.5 SEE THE LIGHT

The Practical Action Plan

Cost: med	£ savings: med	Effort: low	CO_2 saved: med

Energy challenge

An average household still has 2-3 inefficient incandescent bulbs in the home. Switching to energy-saving light bulbs will reduce your bills, as they use about a quarter of the power of tungsten bulbs, i.e. a 15W bulb is equivalent to an old 60W one.

It's worth buying reputable makes, such as Philips or Osram, rather than the discounted brands, which often perform less well and can take a long time to reach full brightness. Choose "warm white" bulbs for a less harsh light.




Solution

There are two main types of energy-efficient light bulbs available: Compact Fluorescent Lamps (CFLs) and Light Emitting Diodes (LEDs)

CFLs are what you typically think of as an energy-efficient light bulb. They're a cost-effective option for most general lighting requirements.

LEDs are available to fit both bayonet and screw fittings, and are particularly good for replacing spotlights and dimmable lights. Though more expensive to buy initially, they are more efficient than CFLs and will save you money in the long term.

Arrange light switches so that it's convenient to turn them off - i.e. place switches at top and bottom of stairs, each end of a hallway and each door to a room.

Use a sensor and timer on external lights so they are only in use when they need to be.

Use appropriate lightings i.e. a low background light while watching television and a bright, concentrated light for reading. Having a range of lights in a room with separate switches will make this easier.

Your savings

Lighting accounts for 7% of a typical household's energy bill. Cutting your lighting bill is one of the easiest ways to save energy and money. By replacing all the remaining standard bulbs and halogen spotlights in your home with energy-saving light bulbs (CFLs and LED spotlights), you could save around £45 a year from your electricity bill.

Save around £45 on your electricity bill!

Recycling bulbs

Low-energy bulbs last longer than traditional ones, and they are also recyclable (unlike filament ones).
Check arrangements for recycling bulbs in your area and give details.

Notes:

Next steps, hints & tips

- Look at the lights in your house. Starting with the brightest and those used the most, consider replacing filament or halogen bulbs with a low-energy alternative.
- Or when a bulb goes – see if you can live (safely) without replacing it at all.
- Consider putting together a sample box of low-energy bulbs, perhaps with the help of a local supplier. Give details of how it can be borrowed.
- Consider arranging a discount with a local bulb supplier and give details. If this is not possible, describe how you can get bulbs online,
  e.g. www.efficientlight.co.uk

Bulbs of 40W and above have already started to be phased out.
For more info: www.energysavingtrust.org.uk : energy-saving products

Transition Streets

2.6 CONTROL YOUR HEAT

The Practical Action Plan

Cost: none	£ savings: med	Effort: low	CO_2 saved: med

Energy challenge

Boilers and heaters account for two-thirds of the energy used in our homes, so changing the settings just a little can have a big impact. However, many of us don't know how to use the heating controls effectively – mastering them can make a big difference to our pockets.

Research shows that in the UK we've increased the temperature of our homes by 5°C since the 1970s - so there's plenty of scope for improvement.

Solution

You may already have a full set of heating controls in your home - but are you getting the best from them? Take a little time to find out what each control does by referring to the instruction manuals that came with them. If you don't have any manuals to hand, copies can usually be downloaded from the manufacturer's website, or call and ask them to send you a printed copy. (See the summary guide of common controls systems over the page). You could ask a neighbour for help if you're stuck.

Yes but...I like being cosy at home. At what price? You can often achieve the same effect by wearing more clothes. You could also try draught-proofing or fitting additional insulation to keep more of your heat inside: see later actions. It's amazing how quickly your body gets comfortable at a slightly lower temperature, especially if you lower it gradually.

Your savings

For every degree you turn it down you can save about 10% of your total heating bill! (About £60 per degree turned down for the average UK home.)

If you fit the correct heating controls, it could typically save you around £70 to £150 from your heating bill in total.

Saves £70 - £150 from your heating bill.

What is the lowest temperature you can comfortably set on your main thermostat?

Next steps, hints & tips

- Set your thermostat to 18°C. Of course it depends where the thermostat is - make sure it's not in a cold hallway that maybe you don't need to heat.
- Dig out the instructions for the central heating programmer.
- Set the heating to come on 20 minutes before you get up, and go off 15 minutes before you leave home.
- Your hot-water cylinder thermostat should be set at 60°C or 140°F. Any higher is a waste of energy and can scald, any lower and there may be risk of Legionella.
- Upgrade to a more intelligent digital thermostat. It will cost around £90. Basic ones cost £35.
- Heat the rooms you use most, rather than the whole house – use thermostatic radiator valves (TRVs) - see later.
- Turn the heating off when on holiday - in winter set it for twice a day for 30 minutes at a low temp.
- Keep curtains and furniture away from radiators to let heat circulate.
- Set the temperature lower in the bedroom at night: it helps you nod off and promotes deeper sleep. -

Heating controls – an overview

What is a programmer?

Programmers allow you to set when the heating and hot water come 'on' and go 'off' again. By installing a programmer, and heating your home and hot water only as and when necessary, you will save energy and money. If you have a hot-water tank, many timers don't allow you to set different on/off times for water and room (space) heating. It may be worth replacing it with one that does, particularly if you live alone.

What is a room thermostat?

This constantly measures the air temperature of a space and can be set to whatever temperature suits you best. They are usually in halls, stairs or landing areas. When the temperature falls below the setting, the thermostat switches on the central heating: once the room reaches the set temperature, the thermostat switches the heating off. Please note that the timer or programmer needs to be switched on for the thermostat to work.

What is a programmable room thermostat?

A programmable room thermostat lets you choose the times you want your home to be heated and the temperature you want it to reach while it is on. In other words, it allows you to heat rooms or the whole house to different temperatures at appropriate times of the day and week. And again, by heating your home and hot water only as and when necessary, it can save energy and money too.

Heating controls – an overview

What is a cylinder thermostat?

A cylinder thermostat keeps a constant check on the temperature of the water in a hot-water cylinder. It switches the heat supply from the boiler on and off as necessary to keep the water at a set temperature.

What are thermostatic radiator valves (TRVs)?

TRVs sense the air temperature around them and regulate the flow of hot water to keep a set temperature in a room. Again, they can help you save money and energy - by allowing different temperatures in some rooms than in others, and turning off the heating in rooms that aren't used.

In the majority of cases TRVs cannot turn off the boiler when the whole house has reached the right temperature. To do that, you will need a room thermostat as well. Radiators in the space containing the room thermostat should not normally have TRVs. But if they do, you should keep the TRVs on their highest possible settings, and set the room thermostat to the required temperature instead. By installing TRVs, you could save around £10 a year and around 45kg of CO_2 a year.

More info: see www.energysavingtrust.org.uk in the home improvements: heating and hot water section or call 0300 123 1234.

Transition Streets
2.7 LAGGING

The Practical Action Plan

Cost: med	£ savings: med	Effort: med	CO_2 saved: med

Energy challenge

Many hot-water tanks in our homes are not sufficiently lagged. This means that heat is continually being lost, and your boiler has to work harder to keep the stored water to the desired temperature. Heat is also lost from pipes that carry hot water around your house. In some places this is ok (e.g. through a cupboard that is used to dry laundry) but often, it's just more unnecessary and expensive heat loss.

Solution

Both tank and pipe insulation will keep your water hotter for longer by reducing the amount of heat that escapes – by up to 75%.. This reduces your fuel bill and saves you money. Wrapping hot pipes in foam sleeves stops them losing heat through contact with cold air. Both tank and pipe insulation is cheap and easy to fit, so this is a DIY option even if you're renting.

Yes but... I can't access most of my hot-water pipes. If you can afford it then get professional help. Otherwise just do the ones that you can easily reach. It's often easier to access pipes when you're doing refurbishment work.

Notes:
Can you arrange a group-buying discount for lagging materials with a local plumbing or DIY store?

Your savings

A hot-water tank jacket costs about £15 but saves you about £100 per year.

Topping up from a 25mm jacket to 80mm costs about £15 and saves you £20 - £30 per year.

Insulation for hot-water pipes costs about £20 and saves you around £10 a year.

Next steps, hints & tips

- Touch your hot-water tank. If it feels warm, it needs a jacket.
- Measure and write down the height of the tank to the top of its dome, and its diameter. (Two standard sizes are 900mm x 450mm and 1,050mm x 450mm)
- Fit a BS Kitemarked insulating jacket (80mm or 3 inches thick) around your hot-water tank.
- Feel your water pipes and consider lagging those that are hot – buy foam tubes and fit to pipes.
- See www.diydata.com for guides

More info: see www.energysavingtrust.org.uk in the home improvements: insulation section or call 0300 123 1234.

Transition Streets

2.8 DRAUGHT-PROOFING

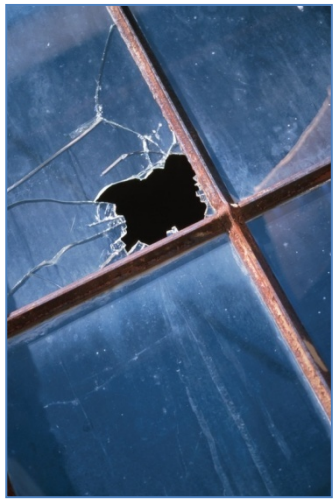
The Practical Action Plan

Cost: med	£ savings: med	Effort: med	CO_2 saved: med

Challenge

If you can feel cold air coming in around the windows in your home it means warm air is escaping. Sitting in a draught doesn't just give you a pain in the neck; in a typical home 20 per cent of all heat loss is through ventilation and draughts.

Save about £30 a year. Costs about £20 - £150 to buy.



Solution

A draughty house is quickly and cheaply remedied by a visit to the DIY shop. Once it's snug, you'll start saving cash and CO_2 as well as feeling more warm and comfortable in your home. Draught-proofing simply fills gaps and decreases the amount of cold air entering your home.

There are several types of materials available from DIY stores including brushes, foams and sealants, strips and shaped rubber or plastic. Check the quality of the products. It will affect their performance and durability. They should conform to the standard BS 7386.

Yes but... doesn't my house still need to breathe? Once the draughts are plugged, it's important the house is still ventilated. Condensation may be a problem in kitchens and bathrooms, in which case you may need an extractor fan.

Next steps, hints & tips

- Find out where the draughts are coming from; gaps between floorboards and around door frames, loft hatches, windows and pipes are the main culprits.
- Measure up external doors and windows and buy draught seals from the DIY shop. Seals are usually made from self-adhesive foam, rubber or brush material.
- Get a brush-style draught excluder for your letter box.
- Seal unused chimneys with newspaper or a purpose-made chimney balloon which inflates to block up your chimney. Remember to take them out again should you decide to use your chimney.
- Draw your curtains at dusk for extra draught exclusion, and keep them behind radiators, otherwise you're just heating the window.
- Curtains wearing thin? Sew a layer of heavy lining material inside them or pay someone to do it for you. Charity shops often have cheap curtains.
- Windows still draughty, but can't afford double glazing? Cover them in a clear plastic film (available at DIY shops) that tightens over the pane when heated with a hairdryer.
- If you have wooden floorboards, fill the gaps between and around them with an acrylic sealant (you can also insulate underneath the floor).

Can you get a discount for double-glazing several windows together?
Is it worth buying draught-proofing materials in bulk for your group?

More info: (Insert details here if your local group runs Draught-Busting workshops) and www.transitionstreets.org.uk/morestreetsaction/ also www.energysavingtrust.org.uk in the home improvements: insulation section or call 0300 123 1234.

Transition Streets

2.9 LOFT INSULATION

The Practical Action Plan

Cost: high	£ savings: high	Effort: med	CO_2 saved: high

Challeng

In an uninsulated home a quarter of your heat is lost through the roof. Insulating your loft is a simple and effective way to reduce your heating bills and you can even do it yourself. Already got insulation? Well, you're getting warmer - but millions of homes in this country have 7.5cm of insulation or less (27cm is the recommended minimum). As a rule of thumb, loft insulation should be double the height of the attic joists.

Solution

Insulation acts as a blanket, trapping heat rising from the house below. Insulating material is simply laid over the floor of the loft, between and then over the joists if they are visible. Protective clothing, gloves and masks should be worn. Care must be taken to insulate around the top and sides of any cold-water tank, as well as around pipework. Also, try not to compress the insulation in tight corners or eaves. Walk boards can then be laid over the joists to provide safe access from the loft hatch to any water tanks (if present).

Loft insulation can be carried out as a DIY task or by a professional installer. There are many grants and special offers available to help you pay for loft insulation.

Yes but...I don't know which materials to use. All the insulation materials listed on the Energy Saving Trust website have their own strengths and weaknesses, and their suitability for you will depend to an extent on the nature of your loft space - but all of them are a better bet than not insulating it at all. There are natural and recycled material options available.

The Practical Action Plan

Your savings

If you currently have no loft insulation and you install the recommended 270mm depth you could save around £250 per year on your heating bill. Topping up from 100mm to 270mm could save you £25 per year.. Do it in spring or summer and get ready for next winter.

Can you get a discount for insulating your group's lofts together?

Save £140 to £250 per year. Costs £265 to £395 (incl. grant). Pays for itself in less than 2 years.

Next steps, hints & tips

- Check your existing insulation - if it's much less than the recommended 27cm, you should definitely consider topping it up.
- Any electric cables should be lifted above the insulation.
- You mustn't cover halogen lamps in the loft (protruding through the top floor ceiling) – it is better to replace these if possible
- Decide whether you want to install it yourself or get a professional to do it. Consider which material you prefer.
- Check your eligibility for grants at the EST website (see below).
- If you're opting for DIY, see the Energy Saving Trust website for a step-by-step guide.
- You can still insulate if you have a flat roof. See the EST website for more details.

More info: see www.energysavingtrust.org.uk in the home improvements: insulation section or call 0800 512 012 to request printed information.

Transition Streets

2.10 CAVITY-WALL INSULATION

The Practical Action Plan

Cost: med	£ savings: high	Effort: med	CO_2 saved: high

Challenge

In most houses built after the 1920s, the external walls are made of two layers with a small air gap or 'cavity' between them. If your home has unfilled cavity walls, a considerable slice of your energy bills will be spent heating the air outside. In fact, about a third of all the heat lost in an un-insulated home is lost through the walls. Cavity-wall insulation is a simple, fantastic way of significantly reducing the amount of energy you need to heat your home.

Solution

Filling the gap between the two walls of a house with an insulating material significantly decreases the amount of heat which escapes through the walls. It will help create a more even temperature in your home, prevent condensation on the walls and ceilings and can also reduce the amount of heat building up inside your home during summer hot spells.

It can normally be applied from the outside through small holes drilled in the wall. It's a simple process and is normally completed within three hours, without damage or mess to your house or garden. Be sure to get advice from a reputable installer who offers a long-term guarantee.

Yes but... why spend all this when I'm going to sell my house anyway in the next few years? You will need an Energy Performance Certificate to sell your home and cavity-wall insulation will increase your efficiency rating, potentially adding value to your home.

The Practical Action Plan

Your savings

Cavity-wall insulation can save you about 15% on your fuel bills, or £115 per year. It typically costs about £250 to install (including subsidy).

Most energy suppliers provide loft- and cavity-wall insulation free to those aged over 70 or in receipt of certain benefits. You will know it's worked when your heating-energy use goes down, as shown on your bills/meter.

Notes:

Saves £75 to £250 per year on your heating bill. Costs £330 to £720 (incl. grant). Pays for itself in less than 5 years.

Next steps, hints & tips

•First of all, find out if you have cavity walls. Indicators include bricks all of the same length, a house built after the 1920s and walls thicker than 265mm (10 inches).

• If you think you have cavity walls, or you aren't sure, then **call the Energy Saving Trust on 0300 123 1234** for advice, to find a local installer and to see which grants you may be entitled to.

• If your house was built in the last ten years, its walls are probably insulated.

•Solid walls lose even more heat than cavity walls, and they can be insulated too.

More info: see www.energysavingtrust.org.uk in the home improvements: insulation section or call 0300 123 1234.

Transition Streets

2.11 YOUR ENERGY ACTION PLAN

The Practical Action Plan

Reminder

Possible actions:

- 2.2 Know how much you are using
- 2.3 Be a real turn-off
- 2.4 See the light
- 2.5 Appliances
- 2.6 Control your heat
- 2.7 Lagging
- 2.8 Draught-proofing
- 2.9 Loft insulation
- 2.10 Cavity-wall insulation

What other ideas does your group have that aren't covered above? Add them below if you think they are relevant for you...

My actions	Previously done	When I'll do this	Notes

Group actions

How can you help each other out in your group? List group actions here (with named person and due date)...

Transition Streets

2.12 THE BIGGER PICTURE DISCUSSION

The Practical Action Plan

The bigger picture

As we have seen, most energy is wasted in heating inefficient buildings, not on devices on standby. But all these actions together play a significant part in saving you money, as well as reducing our energy consumption – which means fewer fossil-fuel power stations being built to supply us with energy, be they coal, nuclear, oil, or gas.

Just by turning off appliances on stand-by, we can save £45 - £80 per year. If we all did this, we would save enough electricity to power a massive 1.2 million homes every year .

- What are the real reasons for our continuing to use more energy than we need?
- Why is it so difficult to stop?
- What do you think you will need to do to change these habits in your home?

Notes:

Include this page if you can arrange thermal-imaging surveys with your local Transition or Community Energy group. (NB: adjust following page numbers and insert a blank page if not included)

Thermal-Imaging survey

It's difficult to know where and how the heat energy you're putting into your home is being lost to the outside world, and hence to decide which of the foregoing actions – double-glazed windows, loft insulation, cavity-wall insulation, etc – will yield the best results for least effort and cost.

A thermal-imaging survey involves photographing the outside of your home with a thermal-image camera. This should be carried out 3 hours after sunset (so any heat from the sun has cooled off) and when your heating has been on for at least two hours. This survey could help you decide on whether to start with loft or wall insulation, or to upgrade your doors and windows, or if it's worth getting heavier curtains or insulating blinds.

Areas where the most heat is being lost will show up yellow or even red in the thermal image, while the cooler parts will show up blue. Obviously, the red parts show where you can benefit most by reducing energy loss.

This survey will also highlight any problem areas in an otherwise well-performing home.

(Explain how to obtain a Thermal Imaging Survey here)

Overview and where to go for more information

You may want to explore these actions **once you've done the basics** outlined in this workbook. They tend to take more effort and/or more investment with a longer payback period. However, they can significantly further reduce your energy use and your carbon footprint.

Buy a new, condensing boiler

Boilers account for around 60% of the carbon-dioxide emissions in a gas-heated home. By fitting a new high-efficiency condensing boiler and improving your heating controls, you will significantly cut your home's carbon-dioxide emissions and could save as much as £490 a year. See http://www.energysavingtrust.org.uk/Home-improvements/Heating-and-hot-water for more information and advice.

Fit double-glazing

Double-glazing cuts heat lost through windows by half and installing double-glazing can save around £140 a year on your heating bills. Double-glazing can save a household around 720kg of carbon dioxide (CO_2) a year. See http://www.energysavingtrust.org.uk/Home-improvements/Home-insulation-glazing/Glazing for more information and advice.

Does your house have double-glazing that needs updating? Windows are a complex subject – triple-glazing is now a popular way to replace windows, and may be well worth considering.

Solid-wall insulation

Solid walls can lose heat just like cavity walls; the only way to reduce this heat loss is to insulate them on the inside or (much better) on the outside. It's not cheap, but you will soon see the benefits to your heating bill and it's another way of playing your part in reducing carbon-dioxide (CO_2) emissions. There are two types of solid-wall insulation: external and internal.

See http://www.energysavingtrust.org.uk/Home-improvements/Home-insulation-glazing/Solid-wall-insulation for more information and advice.

Overview and where to go for more information

Floor insulation

Timber floors can be insulated by lifting the floorboards and laying mineral wool insulation supported by netting between the joists (saving you around £60-£75 a year). You can also use a regular tube sealant, such as silicone to fill gaps between floorboards to stop draughts (saving you about £25 a year). About 400kg of CO_2 a year can be saved by combining both these measures www.energysavingtrust.org.uk/Home-improvements/Home-insulation-glazing/Floor-Insulation.

Explore options for renewable energy

Renewable energy technologies like solar panels (for hot water or for electricity) and renewable heating are becoming increasingly popular in the home. These are effective alternatives to fossil fuels and will help you to meet your own energy requirements and reduce your home's CO_2 emissions. As costs come down and energy prices rise they are increasingly cost-effective, but still have payback periods of 5-10 years (at current energy costs). More information at www.energysavingtrust.org.uk website or call 0300 123 1234. Also see Devon Renewable Energy Association (DARE) - dare.btck.co.uk or call them on 01837 89200 for support and advice on grants, local installers etc. For advice about renewable energy options to suit your needs, also see www.yougen.co.uk.

Switch to a renewable/green energy provider

Switching to a renewable energy supplier reduces demand for fossil fuel and creates demand for renewable technologies. It supports new jobs in this industry that is so critical to dealing with climate change. Most energy suppliers offer 'green' electricity tariffs. These seek to support renewable energy in the UK. There are many green tariffs on the market, each supporting renewable energy in different ways.

Check out the questions you should ask your potential green supplier at www.energysavingtrust.org.uk/Generate-your-own-energy/Green-electricity Find the best green supplier for you at www.greenelectricity.org.

2.14 REFERENCE INFORMATION

Reference information

- www.wikipedia.org/wiki/home_energy_monitor references several studies
- 'Powering the Nation' Energy Saving Report
- The Energy Saving Trust – www.energysavingtrust.org.uk
- UK Housing Energy Fact File - www.gov.uk/government/statistics/united-kingdom-housing-energy-fact-file-2013
- The Energy Saving Trust Fact Sheet
- National Insulation Association - www.nia-uk.org

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3. Spend less on water

Today's meeting is on **saving water**.

But first!

Discuss how you have all got on with your actions from the Energy chapter. (Your action plan is in section 2.11.)

What have you all achieved?

What was hard?

What do you still want to get done?

Notes:

3.1 SPEND LESS ON WATER

The Practical Action Plan

The facts

On average, individuals in UK use around **150** litres of water per day. We need to reduce this to more sustainable levels. The Government has set a target for each of us to reduce our consumption to 130 litres per day. What's shocking is that many people in the world exist on less than 10 litres per day. This is how much we use to flush the toilet just once!

This consumption level is not sustainable in the long-term. If we do not take action now, climate change, population shifts and wasteful behaviour mean facing increased water stress in the future.

Although it seems to rain here a lot, in fact the South East of England has less water available per person than many Mediterranean countries. The South East was designated as an area of serious water stress in 2007 by the Environment Agency. When was the last hosepipe ban in your area?

About 1/3 of the water we use each day runs down the plughole or toilet without being used. This is what we want to cut by making small behavioural changes and choosing water-efficient products. Saving water will not only help reduce environmental impacts - if you are on a water meter it will save you money on your water bill, and using less hot water will save you money on your energy bill too.

Benefits of reducing your water consumption:

Reduce energy use and greenhouse gas emissions: It takes energy to abstract, treat and supply water to our homes. We then use energy to heat that water. For every drop of water you don't use, you are saving energy and reducing greenhouse gas emissions.

Save money: By reducing your water consumption and fitting a water meter you could save money on your bills.

Support the natural environment and wildlife that depends on it: Many rivers and water bodies have been damaged because too much water is being taken from them. The current system for managing abstraction was not designed with the natural environment in mind.

3.1 SPEND LESS ON WATER (Cont'd)

The Practical Action Plan

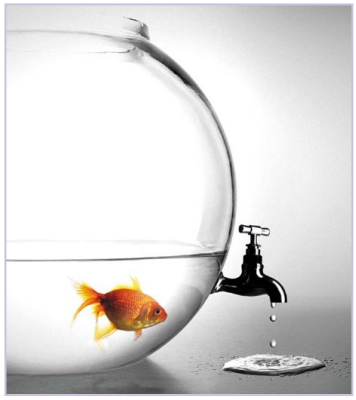
So what can you do about it?

Each of these actions can significantly reduce the amount of water that your household uses. Even if you are not on a meter, it is important to conserve this most precious resource, and to consider the related CO_2 emissions that come from the processing and pumping of all the water that we waste.

Some of these actions will cost you little or nothing, and some will cost you a little money (but this should be offset by the reduction in your water bill).

In your group, have a brief chat about the items and then decide which ones you want to tackle and when. Record your own action plan on the page at the end of this section.

3.2 Water meters
3.3 Know how much you're using
3.4 Feeling flushed
3.5 Taps, drips & leaks
3.6 Showers & baths
3.7 Washing clothes
3.8 The kitchen sink
3.9 Outdoors



The actions listed above are the basic (but most cost-effective) things you can do in your home. If you have time left, discuss the “bigger picture” of your water footprint at the end of this section.

Notes

Do you have a water meter? Would it be cheaper for you?

The next section assumes you have a water meter. People who have metered water are more motivated to reduce waste, because they are paying directly for the water they use. However, there is no simple answer to whether a particular household is better off with a meter. Here is the answer from a water company website:

"Having a water meter is a really good idea. It's free to fit for our domestic customers and could save you money. We can't tell you exactly how much you might save because non-metered bills vary a lot and we don't know how much water you might use."

"As a simple rule of thumb, though, if you have more bedrooms in your property than people, you are very likely to save money if you change to a metered supply. So, for example, a single occupier in a 3 bedroom house should definitely consider having a meter. You may also benefit if you live in purpose-built accommodation which may have a high rateable value."

"We can't tell you exactly what your bill will be but we've devised a simple calculator to help you work out whether changing to a metered supply will reduce your bills. Bear in mind that the calculator is based on average use of water. How you use water may be a little different, so it may vary from the average but the calculator gives a good indicator in the majority of cases."

"If you decide, within a year of the meter being fitted, that you are not making the savings you'd hoped, you can revert back to being non-metered, without any charge."

Does your local water company have a web page for their water calculator? Or use www.affinitywater.co.uk/how-much-will-i-save.aspx

Transition Streets

3.3 KNOW HOW MUCH YOU ARE USING

The Practical Action Plan

Cost: none	£ Savings: low	Effort: low	CO_2 saved: low

Challenge

As we saw in the energy section, we can't manage something if we can't measure it. Relying on twice-yearly meter readings from your water company does not give you much information about your water consumption, or whether it is going up or down as a result of the actions you are taking.

Plus once you know how to read your meter, you can also do regular, simple checks for leaks.

Solution

Read your own water meter regularly. Just being more aware of how much water you use will have a positive impact on your household's water wastage. It shows you the actual results and savings from all your efforts with the other actions in this section.

This is generally a little more hassle than reading your electricity or gas meter, as water meters tend to be located in the pavement outside your property. They are usually in a special meter box, under a metal cover that you need a screwdriver to lever up. Or your meter may be inside your property close to where the water service pipe enters it. See overleaf for advice on reading your meter.

To check for leaks, read you meter just before you go away for a few days, then read it again as soon as you get back. Nothing in the house should have been using water, so you can quickly tell there's a leak somewhere as your meter will have gone up in your absence.

Yes but... I have no idea where my meter is. If you can't find your meter then call insert company and phone number who will tell you where it is.

Guide to reading your meter:

Step 1 - Locate your meter

Your meter should be in your front garden, at the boundary to your property or in the public footpath; it will be located inside a small compartment. Occasionally meters are fitted internally, usually under the sink.

Step 2 - Lift the lid

You may need to use a wide screw-driver for this. You may need to remove a polystyrene frost cover and pull up an inner meter lid (if present) to view the meter face.

Step 3 - Read the numbers

You need to note the white numbers on black which show cubic metres. Ignore the white numbers on red. Some of the dials may be moving. Do not worry about this unless they fail to stop when no water is being used.

Or, watch a video on reading your meter:

Insert your water company's web page here, or use www.affinitywater.co.uk/how-to-video-reading-your-water-meter.aspx

Sample water meter readings log

Date	Water Meter Reading	Usage
01/12/2012	3785	n/a
08/12/2012	3792	7
15/12/2012	4000	8
22/12/2012	4007	7

Notes: (Meter readings are usually in cubic metres = 1,000 litres.)

Next steps, hints & tips

- Complete a water usage calculator like the BBC one (http://www.bbc.co.uk/news/1/hi/in_depth/629/629/5086298.stm) to estimate your annual consumption. How does it compare with the average of 150 litres per person per day, and the target of 130 L/p/d?
- You should check your meter at least monthly, particularly if your meter is located outside your property. You pay for leaked water.
- If you're making changes to reduce water use, try reading your meter weekly for a while, and see what difference it's making. Use the sample water meter readings log provided above.
- Keep the log visible – stick it on the fridge so everyone in the household can see it. You may consider rewarding everyone for their efforts by sharing some of the savings.
- If there's more than one meter outside your house, check the meter number against the number on one of your bills to make sure you're reading the right one.

More info: See the guide to reading your water meter on the previous page.
Insert your local company's name, phone & web page here

Transition Streets
3.4 FEELING FLUSHED

The Practical Action Plan

Cost: none | **£ Savings: med** | **Effort: low** | **CO_2 saved: low**

Challenge

About a quarter of all the clean, drinkable (expensive!) water we use in our homes is flushed down a toilet.

An old style single-flush toilet can use up to 14 litres of water in one flush. New, more water-efficient dual-flush toilets use only 6 litres for a full flush, and four litres with a reduced flush.

Solution

The easiest solution is to flush less often! You would halve your water use from flushing if you simply flushed every other time.

If your toilet is pre-2001 (see guide over page), consider installing a Cistern Displacement Device (CDD) such as a 'Save a flush' bag or a Hippo/Hog. They are simply put in the toilet cistern where they displace about 1 litre of water every time you flush.

Explain where to obtain Hippos. Some water companies will send them free to their customers.

Yes but... our loo doesn't flush well anyway, won't this make it even worse? Don't use a CDD on cisterns of 6 litres or less. Try a smaller device if you need to flush twice. Remove it altogether if even the smallest one causes a problem – the idea is to reduce flushing, not increase it!

Your savings

Considering the average household flushes 5,000 times per year, savings of up to 5,000 litres per year could be achieved just by simply installing a cistern displacement device. This could save you about £8 per toilet. (Check this cost for your area, and also insert below)

Some people even use their toilet as a dustbin, by flushing food and rubbish away. In the UK our drainage system isn't designed to cope with this, and it wastes water.

Save £8 per year per toilet on your water bill. Costs are nothing or a few pounds.

Next steps, hints & tips

- Use the table on the next 2 pages to identify what type of toilet you have, and what type of cistern displacement device or CDD (if any) you should probably be using.
- Or assess the capacity of your cistern by counting how long it takes to flush: 9 seconds or more - fit a Hippo, 7-8 seconds - fit a Save-a-flush, less than 7 - leave as is.
- Make your own CDD or Hippo from a large plastic bottle filled with water, or filled with sand and seal it well.
- Flush less often - if it's yellow let it mellow, if it's brown, flush it down! This can drastically reduce usage.
- Check the water level in your cistern is set correctly to the mark which will be about 25mm below the overflow. If it is just below the overflow it will be flushing about one litre more than the designed amount.

More info: see www.waterwise.org.uk or give Waterwise a call on 0203 463 2400 and they will be happy to help with any questions.

Transition Streets
3.4 FEELING FLUSHED (Cont'd)

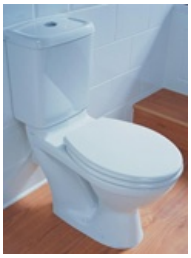
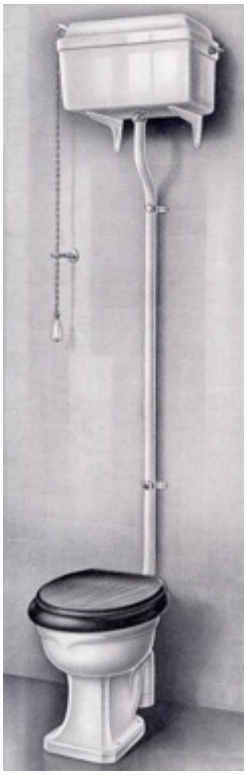
Photo	Year	Type	Flush	Water consumption	CDD
	Post 1 Jan 2001	Modern continental style push button cistern	Dual	Full - 6 litres Half -4 litres	Not required
	Pre 1 Jan 2001	Close coupled WC	Single	7.5 litres	Save-A-Flush bag
	1980-1970	Close coupled double trap syphonic pan	Single	9 litres	Save a flush
	1970 - 1950	Close coupled	Single	9 litres	Hippo or Save-A-Flush bag or Freddie Frog

Photo	Year	Type	Flush	Water consumption	CDD
	1950 - 1940		Single	10 litres	Hippo or Save-A-Flush bag or Freddie Frog
	Pre 1940		Single	12 litres	Hippo or Save-A-Flush bag or Freddie Frog
	Pre 1940		Single	12 litres	Hippo or Save-A-Flush bag or Freddie Frog

* source: Waterwise, pictures courtesy of www.twyfordsbathrooms.com

Water efficient toilets

Purchasing a water-efficient toilet

Many toilets today feature a dual-flush option to help you save water. These types of toilets have a split flush button giving the user the choice of pressing a small button or a large button, depending on how much water is required to clear the toilet bowl. Look for dual-flush toilets if you are considering purchasing a new toilet for your home.

www.waterwise.org.uk are currently ranking all toilets available on the UK market by water efficiency.

Detecting leaks and repairing your toilet

Most older toilets overflow into a pipe which leads outside the house, and it's easy to see when the ball valve gets stuck and the cistern overflows.

Modern, water-efficient toilets may overflow into the toilet bowl, so overflows are harder to detect. If you think this type of cistern has a slow leak, add a few drops of food colouring in the cistern. Don't flush the toilet for at least one hour. If the food colouring shows up in the toilet bowl after an hour, then you've got a leak.

It is recommended that you get a licensed plumber to fix any leaks. Plumbers know which seals and washers are right for different toilets. However if you are a handy-person, take the parts of the toilet that need replacing to your local hardware store or plumbing retail outlet. The staff there will help you choose the correct replacement parts. Remember to repeat the food colouring test to make sure you have fixed the leak.

Transition Streets
3.5 TAPS, DRIPS & LEAKS

The Practical Action Plan

Cost: none-low | **£ Savings: med** | **Effort: low** | **CO_2 saved: low**

Challenge

Often our water bill is higher than it needs to be, and we're not even using the water we're paying for! For example, a running tap wastes over 6 litres per minute.

Dripping taps are not just annoying, they add up to staggering water losses as you can see in the table below. Dripping taps often just need a new washer, which costs only pence. Leaky pipes are also just dripping away your money, inside or out.
(In the table below calculate approximate costs for your area)

Rate	Litres lost / year	£ lost / year
1 drop per second	5,000	£8
Drops breaking to a stream	31,000	£50
2mm stream	146,000	£237
5mm stream	526,000	£854

Solution

Check regularly for drips and leaks. To fix a dripping tap, first of all, try changing the washer. Also make sure your water pipes and external taps are lagged in time for the cold winter months. Burst water pipes can cause serious damage as well as waste a lot of water.

Yes but... I changed the washer and it's still dripping. A dripping tap usually means that the tap washer needs renewing, but it can also be caused by a damaged valve seating. If the drip is from a mixer nozzle, then change both tap washers.

Transition Streets
3.5 TAPS, DRIPS & LEAKS (Cont'd)

The Practical Action Plan

Your savings

You can save about £14 if you stop leaving the tap running while you brush your teeth (assuming you do this for 2 minutes twice a day) or wash the veg, or rinse the dishes...

Fix a dripping tap and save £8 per year. Turn tap off when brushing, save £14 per year.

Notes

Next steps, hints & tips

- See www.diydoctor.org.uk for an online 'how-to' guide for fixing drips.
- Search for a www.youtube.com video called "Collins DIY Survival Demos - How to Fix a Dripping Tap".
- See your local hardware store. They often offer written guides or will give you specific advice.
- If you're not into DIY, contact a local plumber or handyman to do it for you.
- Check your pipes regularly for visible leaks.
- Use the left-over water from your night-time drinks to water houseplants – this saves new water being poured into the plants and your drink being poured down the plughole.

More info: see www.waterwise.org.uk or give Waterwise a call on 0203 463 2400 and they will be happy to help with any questions.

Transition Streets
3.6 SHOWERS & BATHS

The Practical Action Plan

Cost: none-med	£ Savings: med	Effort: low	CO_2 saved: low

Challenge

Baths typically use 80-100 litres of water, whereas an ordinary shower uses about a third of that amount. Over a year, if you have 4 baths a week, this equates to an extra £20 worth of water (not including all the costs of heating the water). Using showers most of the time, with the occasional bath, will give significant savings.

The average Brit spends 7.2 minutes in the shower and this average is increasing. Power showers are very popular and can easily use more water than a bath (watch your electricity meter reading shoot up while this is on, it is almost equivalent to boiling a kettle). While invigorating, they pump as much as 20 litres of water a minute, more than the average person living in the developing world gets through in a day. In fact, even a five-minute power shower can use more water than a bath.)

Solution

Different shower heads are available which reduce the flow, but keep a good pressure. By replacing your shower head with a more water-efficient model it is possible to reduce your water consumption by more than half, whilst still enjoying a great shower. A shower timer shows how much time you have spent in the shower, and can help you save water.

Yes but... I really do <u>need</u> to shower every day. Don't take fewer showers – reduce the volume of water used and the time you spend in the shower. You can still have a great shower experience, save money on water and energy, preserve a valuable resource and reduce your CO_2 emissions.

The Practical Action Plan

Savings

Replacing a power shower with a low-flow shower head could save around 35 litres of water every day – or £20 per year off your water bill plus £20 off your energy bill. If you have a power shower, every minute you cut off your showering time can save as much as 16 litres of water (another £9 per year).

Next steps, hints & tips

- A Water Widget aerates the water in your shower, cutting the amount of water used without reducing performance. For showers fed by a high-pressure combi boiler or hot-water cylinder with pumped flow.
- A Shower Save screws into the shower hose, saving water and energy. For mixer showers fed from a low-flow combination boiler or gravity-flow hot-water cylinder.
- A Tap Aerator can be fitted to a kitchen tap, and reduces the flow but not the performance. Some bathroom taps incorporate an aerator.
- Almost all water companies offer free water-saving devices. Explain here how to obtain free Water Widget, Shower Save or Tap Aerator products.
- Get a shower timer to help limit your (and your teenager's ?!) time. Some can tell you how much water you are using, and alert you when you've had the max recommended amount (35 litres).
- Have a cooler shower to save energy costs. You'll tend to get out of there more quickly too!
- Save the cold water that runs while waiting for the hot – keep a bucket or watering can handy to water the plants or flush the loo once you've finished.
- If you do have a bath, you can siphon out your bath water and use it to water your garden. WaterGreen is one such siphon pump, at about £20.

More info: (insert your local water company website here) and www.waterwise.org.uk

Transition Streets

3.7 WASHING CLOTHES

The Practical Action Plan

Cost: none	£ Savings: low-med	Effort: low	CO_2 saved: low

Challenge

The average water consumption of washing machines is about 50 litres per wash - although now less than it used to be, it's still quite a bit of water. Clothes washing accounts for about 13% of the water that we use in our homes, so by reducing wastage in this area we can make significant water savings – the average family does 274 loads a year. Washing machines vary tremendously in how much water they use per wash: when adjusted for capacity, some use as much as 20 litres per kilogram while others as little as 6 litres.

Solution

- Only wash clothes when they are dirty. Try and get everyone in the family to think about whether something *needs* washing before it goes in the basket.
- Use water-efficient settings on your washing machine. Read the manual and see if there is a more efficient option.
- Use a full load every time, or use the half-load setting
- If you plan to buy a new washing machine, make sure that it's water efficient
- Washing at lower temperature doesn't save water, although it wil save on your energy costs. Many powders and liquids are designed to work at 30 degrees, and they work well.

Yes but... I have to keep up with the washing, else it becomes a mountain in this house! Consider how often you really need to wash your clothes. After every wear? We often wash things that don't need it out of habit – if it doesn't look dirty or smell too bad, it may last another day.

Next steps, hints & tips

- When replacing your old washing machine, make sure to buy a water-efficient model. See rankings at www.waterwise.org.uk for guidance, and ask your local retailer for more info.
- More expensive models that use less water will generally still save you money in the long run.
- When using your washing machine, make sure to use a full load every time. Surveys have shown that a typical load of laundry is usually much less than the maximum capacity of the model.
- If you really need to do a wash but don't have a full load, use the half-load feature. However some half loads will use almost as much water as a full load – so two half loads will use more water and energy than one full load.
- If you're purchasing a new machine, choose a model with a capacity that is appropriate for your situation. If you live alone, you're unlikely to need a model that can wash 10kg of clothing.
- Familiarise yourself with your washing machine's cycle options. Some settings provide the same cleaning power but with less water and energy. Check your user manual or contact the manufacturer.
- Avoid pre-washing. Most modern washing machines and washing powders are so effective that you don't have to pre-rinse.
- Try using eco-balls rather than liquid or solid detergents – this works out at around 3p per wash and they really do clean (some whites may need extra help).

Notes

More info: see www.waterwise.org.uk or give Waterwise a call on 0203 463 2400 and they will be happy to help with any questions.

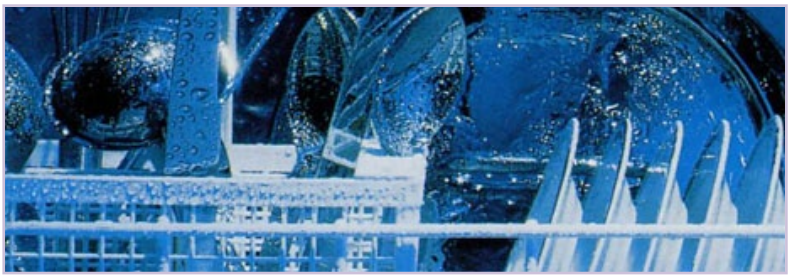
Transition Streets
3.8 THE KITCHEN SINK

The Practical Action Plan

Cost: none-low	£ Savings: low-med	Effort: low	CO_2 saved: low

Challenge

The kitchen tap and dishwasher account for about 8-14% of water used in the home, so there's a huge opportunity here to reduce water wastage. Kitchen taps vary tremendously in flow volume, from 2-25 litres per minute, and behaviours such as how much you twist the tap, and for how long you leave it on, influence how much water is used when you wash up.



Solution

For example, washing up or rinsing dishes under a running tap can use dozens of litres of water, but if you use a washing up bowl or plug your sink, you can reduce water wastage by 50% or more.

A common misconception is that dishwashers use more water. In fact, these machines can be water savers – if used wisely. In the 1970s, dishwashers used as much as 50 litres per cycle, but modern models can use as little as 10 litres – sometimes even less than washing up by hand.

If you are thinking about buying a new dishwasher, you can refer to the rankings on www.waterwise.org.uk for guidance on which models are the most water efficient.

Yes but... sometimes I have to wait for ages for hot water to arrive at the tap, which wastes lots of cold water down the sink. Collect all the waste cold water in a watering can that you leave by the sink, then use it on the garden or your houseplants.

Next steps, hints & tips

- Consider installing a more water-efficient tap or a tap aerator – aerators in particular are cheap and simple quick fixes that you can do yourself.
- When washing up by hand, either use a washing-up bowl or plug your sink. Then you can use what's left over to water your houseplants.
- Try to avoid having to thaw frozen foods under running water.
- Keep a jug of water in the fridge so that you don't have to run the tap for ages while waiting for cold water to flow.
- Avoid installing a waste-disposal unit in your sink - they require lots of water to operate properly. Compost your food waste or recycle it via your green bin / kerbside food caddy.
- When using your dishwasher, make sure to use a full load every time. Two half loads still use more water and energy than one full load.
- Become familiar with your dishwasher's cycle options for lower temperature/duration cycles. Check your user manual or contact the manufacturer.
- Most modern dishwashers are so effective that you don't ever have to pre-rinse.
- Use the minimum amount of water required when you boil water in saucepans and kettles - you'll save energy as well as water.

More info: see www.waterwise.org.uk or give Waterwise a call on 0203 463 2400 and they will be happy to help with any questions.

Transition Streets
3.9 OUTDOORS

The Practical Action Plan

Cost: low-med	£ Savings: med-high	Effort: low	CO_2 saved: low-med

Challenge

Outdoor water use accounts for around 7% of the total water use, but in the summer this can rise to over 50% of demand. Many of us still use drinking quality, very expensive, cleaned and treated tap water on our lawns and gardens. However this option can be removed from us by law during times of drought.

Solution

Consider what you plant and look for more drought tolerant varieties. By using water-efficient gardening practices, you can still have a beautiful, living garden even in times of extreme drought.

Try to avoid having to use tap water to water the garden - instead collect rainwater in a water butt (rain water is also better for your plants) and/or consider re-using dirty water, or grey water (from anywhere but the toilets) on the garden. See section 3.11 at the end for more information on grey water and rainwater harvesting systems.

There are many on-line guides to low-water gardening. Try the Environment Agency's one: http://www.environment-agency.gov.uk/static/documents/Leisure/cwb_ch6_gardening_880746.pdf.

Yes but... I can't use my old bath water for the garden due to all the bubble bath. Soil and potting composts are generally good at filtering out soap and detergents – sometimes the residue even acts as a mild fertiliser. The eco varieties are generally better than regular. The Royal Horticultural Society does not recommend using grey water on edible crops.

The Practical Action Plan

Your savings

Your hosepipe uses as much as 18 litres of water per minute. A watering can, if filled from your water butt, saves £135 per year (if you typically use the hose for 15 mins/day for, say, 4 months of the year). (22)

Next steps, hints & tips

- If you have to use a hose, consider fitting it with a trigger gun to control the flow (although during a hosepipe ban you will need to use a watering can).
- Invest in a butt. Your roof collects about 85,000 litres of rain per year. This could fill 450 water butts with free water for your garden or car-washing. Insert details of where to obtain the best/cheapest water butts.
- Sprinklers can use as much as 1,000 litres of water per hour! If you really must, use it early in the morning or late in the evening.
- Rather than washing your car with a running hosepipe, try using a bucket and sponge instead (ideally fill the bucket from the butt).
- Mulching will not only keep away water-loving weeds, but will also keep the soil cool and decrease evaporation by up to 75%.
- Giving your plants' roots a good soaking once or twice a week in dry weather is much better than lightly watering them every day.
- Think about adding some drought-resistant perennial and bedding plants to your garden to add diversity and increase resilience.
- Don’t overwater – there is no need for hanging baskets and containers to drip after watering.
- Water should be directed underneath the foliage. There should be enough to wet the top 30cm (12in) of soil, where most plants’ roots are.
- It’s ok to let your lawn go brown - it will recover immediately after rainfall. Even the Queen had a brown lawn during recent hosepipe bans!
- Use pressure washers sparingly - if you must use one to wash your patio furniture or bike, do it on the lawn so the water gets recycled.

Transition Streets

3.10 YOUR WATER ACTION PLAN

The Practical Action Plan

Reminder

Possible actions:

3.3 Know how much you are using
3.4 Feeling flushed
3.5 Taps, drips and leaks
3.6 Showers and bath
3.7 Washing clothes
3.8 The kitchen sink
3.9 Outdoors

What other ideas does your team have that aren't covered above? Add them below if you think they are relevant for you...

My actions	Already done	When I'll do this	Notes

Group actions

- Before the Food meeting try and do the following things:
- Do the Water actions (above) and keep working on Energy (2.10)
- Read the Food chapter and note any actions you want to explore
- Become more aware of what food you buy and how you use it:
  a) do you spot any food being wasted?
  b) how much food packaging do you recycle or throw away?
  c) how much does your food cost each year?

3.11 THE BIGGER PICTURE DISCUSSION

Questions for discussion

If your group has time left, then stop to consider your "water footprint".

This means the water that has been used in the production of everything you buy and use; for example the water used in farming the meat you buy, and the water used to make the cotton in your T-shirt. This is called "embedded water"

Each Briton uses about 150 litres of tap water a day, but if you include the amount of water embedded within products, our water consumption is actually around 3,400 litres every day. About 70% of the embedded water that we consume comes from other nations, as we import goods and services into our country.

About 2/3 of the water that we consume is embedded in our food. For example, a tomato has about 13 litres of water embedded in it; an apple about 70 litres; a pint of beer about 170 litres; a glass of milk about 200 litres; and a hamburger about 2,400 litres.

- So, what else can we do to reduce our overall water consumption?
- Do you feel you have enough information to make informed choices about the water impacts of what you buy, from t-shirts to hamburgers?
- How could you find out more?

Notes:

Water footprints

WWF and other experts believe that it's essential to break the link between economic growth and higher water usage. They suggest that agricultural practices like rainwater harvesting for irrigation are one way. We could also cut consumption patterns that require ever more water, i.e. buy fewer 'water-heavy' goods, often grown miles away from us in countries that have water shortages, like cotton from Pakistan. See the table below for some hidden water costs.

Product	Virtual water content (litres)
1 glass of beer (250 ml)	75
1 glass of milk (200 ml)	200
1 cup of coffee (125 ml)	140
1 cup of tea (250 ml)	35
1 slice of bread (30 g)	40
1 slice of bread (30 g) with cheese(10 g)	90
1 potato (100 g)	25
1 apple (100 g)	70
1 cotton T-shirt (250 g)	2000
1 sheet of A4-paper (80 g/m^2)	10
1 glass of wine (125 ml)	120
1 glass of apple juice (200 ml)	190
1 glass of orange juice (200 ml)	170
1 bag of potato crisps (200 g)	185
1 egg (40 g)	135
1 hamburger (150 g)	2400
1 tomato (70 g)	13
1 orange (100 g)	50
1 pair of shoes (bovine leather)	8000
1 microchip (2 g)	32

(Image extracted from Water footprint of nations: Water use by people as a function of their consumption patterns)

"Controversially, as water becomes scarcer, some countries may have to give up growing certain crops and rearing animals. When the water needed to grow crops has to be pumped hundreds of metres from below, the true cost of food on supermarket shelves becomes clearer." wrote journalist John Vidal, The Guardian 29.09.06.

For more info see: www.waterfootprint.org or track down a copy of the World Wildlife Fund's report about the global effects of the UK's water footprint (also available from the above website).

Rainwater harvesting

If it is correctly collected and stored, rainwater can be used for toilets, washing machines and watering gardens without further treatment. In practice, most domestic roof areas are too small to satisfy all this potential demand regardless of the size of the storage cistern, so it is important to evaluate the potential savings before investing in an expensive installation.

Solutions range from sophisticated systems with large underground tanks with pumps, storing thousands of litres, to smaller scale DIY systems that simply transfer rainwater by gravity feed from large wall-mounted butts through the outside wall to a toilet cistern. The garden water butt is the simplest way of collecting rainwater. It does not need any treatment or mains backup, and it does not have to supply water when temperatures are below freezing.

Greywater re-use systems

Grey water refers to all household wastewater other than wastewater from the toilet (blackwater). Greywater from baths, showers and washbasins is less contaminated than that from the kitchen. Typically, domestic reuse systems collect greywater and store it before reusing it to flush the toilet. More advanced systems treat greywater to a standard that, it is claimed, can be used in washing machines and the garden. The most basic systems simply divert cooled and untreated bath water to irrigate the garden. Systems for flushing the toilet can save around a third of daily household water demand. A trial by the Environment Agency showed a range of water savings from about 5-36%. As newer properties tend to have lower toilet water consumption, the maximum savings in a new build might be closer to 20%.

Transition Streets
3.12 REFERENCE INFORMATION

Reference

- www.waterwise.org.uk
- Environment Agency – www.gov.uk/government/organisations/environment-agency
- Energy Saving Trust – www.energysavingtrust.org.uk

4. Spend less, eat well

Today's meeting is on
Food: Spend less, eat well.

But first!

Discuss how you have all got on with your actions from the Water chapter. (Your action plan is in section 3.10).

What have you all achieved?

What was hard?

What do you still want to get done?

Notes:

The Practical Action Plan

The facts

Having a strong, local food system is essential if our community is to be more self-reliant, less oil-dependent, and less exposed to the global price fluctuations that affect how much we pay for our food.

In times of global shortage or local supply disruption (remember the problems caused by the fuel protests a few years ago?), it's important that we can feed ourselves healthy, tasty food, for a reasonable cost.

In the past, towns and the surrounding villages were much more self-reliant in food. Most of our staples such as grains, vegetables, meat and dairy produce were grown and produced in the area.

Nowadays, it is mostly brought to us by lorry, ship and plane from across the world, or at least across the UK.

We are much more vulnerable in terms of 'food security' these days. An example is our dependence upon the national supermarket chains, who have only a 3 to 5 days' supply of food in them at any one time.

Most supermarket food is travelling by road freight, so any disruption of that supply will impact us very quickly. In the UK, the big 4 supermarket chains control 80% of our food market.

Local food systems create and protect local jobs and support our local economy. We don't have to ship food hundreds of miles, emitting CO2, needing extra roads, contributing to traffic congestion, and burning up oil in the process.

Instead we can eat a great range of fresh, tasty, seasonal food within hours of it being picked, with no processing or excessive packaging required. It can be cheaper than the supermarket alternative. This doesn't mean that everything can be produced locally, or even regionally (bananas are unlikely to thrive in the united Kingdom) but it makes sense to grow the stuff that can.

Thinking a little more about the true costs of eating strawberries all year round makes them taste, well, a little less good.

The Practical Action Plan

So what can you do about it?

Each of these actions can give you tasty, fresh food for less, cut CO2 emissions and other environmental and social impacts and/or help build a strong local food system. All will cost you little or nothing.

In your group, have a brief chat about each item and then decide which ones you want to tackle and when. Record your own action plan on the page at the end of this section.

4.2 Buy local, seasonal foods

4.3 Reduce food packaging

4.4 Minimise food waste

4.5 Why try organic?

4.6 Grow your own

4.7 Caring carnivores

4.8 Cooking efficiently

Food prices

At a time when British farming is in crisis, with competition from international markets, and the stronghold of the supermarkets and international food cartels, we still hear a lot about the rising cost of food for UK households.

Yet in real terms, in the last five decades, spending on food basics has declined sharply.

In 1957 we spent 33% of our household income on food, we now spend 15%.

Transition Streets
4.2 BUY LOCAL, SEASONAL FOODS

The Practical Action Plan

Cost: none	£ Savings: low-med	Effort: low	CO2 saved: low-med

Food challenge

Food is travelling further than ever before. In Britain, the distance food is transported has increased 50% from 1978 to 1999. Family farms, local abattoirs, processing plants, local food distribution systems and small shops are all disappearing, unable to compete in today's global market. Over-centralisation of food systems through supermarket chains has meant the loss of local distinctiveness, traditional varieties, and a sense of local food culture. Moreover, money leaks out from local economies as it is siphoned off by distant food businesses, and CO2 emissions rise as our food is shipped further from its source.

Solution

Local food is not just about 'food miles'; it is also about food that is produced and distributed in ways that contribute positively to local communities. Ideally, communities should be easily able to buy as much locally-produced food as possible. Locally organised food systems can help their communities to thrive by:

- Providing jobs and supporting business networks
- Distributing food directly in our area, not sending it to distant supermarket depots before it can head back to us in Hertfordshire.
- Creating positive social connections whilst providing healthy, fresh, seasonal food for the community.

Yes but... some food can't be produced locally. Trade is vital and very rarely can a local region be completely self-sufficient. Trade, if carried out in a fair way, also has many positive impacts, including education and improved quality of life. It's fine to buy things that can't be produced locally, but we *can* try to be sure the goods are produced fairly.

Your savings & benefits

Eating local food from a nearby farm is more likely to be healthy, fresh and in season – when it tastes best!

It can be cheaper and there is no plastic packaging or tray attached. Why not go to the next farmers market and compare prices with your supermarket shop?

You get the joy of knowing shop keepers and stall holders. Also, box delivery schemes can save you carrying heavy loads of shopping.

Notes:

Next steps, hints & tips

- Begin with just a part of your food shop – why not try a local butcher? (List your local butchers here)
- Or try a local bakery (List your local bakeries here)
- Have fresh local food delivered to your door (see next page) or use a wheeled trolley to help ease the shopping load.
- Support local, independent food shops and ask them to stock local produce. (List local independent food shops here)
- Buy your food directly from the farm, farm shop or farmers market. (List them)
- Check which foods are in season and how to use them at www.eattheseasons.co.uk .
- Ask for more local organic food in your school, hospital, work place
- Whenever you eat out, ask restaurants & pubs whether they source locally and sustainably. (Mention restaurants that do so here)
- (If your group is building up a list) **Send details of your favourite local shops so we can include them here and in our website!**

Food box schemes

There are as many varieties of box schemes as there are wonderful vegetables in them. However, the majority sell only organic produce, which can range from set-content boxes of seasonal vegetables, to others that let you choose from a selection of meat and dairy, even wines and washing-up liquids.

A few schemes sell only home-grown produce, others source additional stock from other local, organic growers. Some fruits are imported. These are usually shipped in rather than air-freighted. And most good schemes ask for a list of up to three vegetables you don't like which they swap for something else.

Box schemes are very competitively priced, coming in cheaper than organic supermarket produce, and often conventional supermarket produce too. Most basic boxes of six or so types of fruit or vegetables start from about £10. Some schemes ask for a minimum order and/or charge a delivery fee. Some examples are:

- The Seasonal Food Company, www.theseasonalfoodcompany.co.uk
- Riverford, www.riverford.co.uk
- Abel and Cole, www.abelandcole.co.uk
- (Add any others operating locally)

The Practical Action Plan

Spend less , eat well

Local farm shops & specialist suppliers

- (List your local farm shops & suppliers here)
-
-
-
-
-
-

Local farmers' markets

Farmers' Market take place around the district. The same stall holders go to each market. Expect to find local specialties, cheeses, seasonal fruit and veg., top quality meat and game, fish, dairy produce, freshly baked cakes & bread and hand crafted goods.

- (List towns, days of the week & times here)
-
-
-
-
-
-

Pick Your Own

- (List PYO growers here)
-
-
-
-

Transition Streets

4.3 REDUCE FOOD PACKAGING

The Practical Action Plan

Cost: none	£ Savings: none-low	Effort: low	CO2 saved: low-med

Food challenge

Our shopping bags are bulging, bins are overflowing, and we're running out of landfill sites to dispose of it all. We're being swamped by packaging - and food packaging is a major culprit.

In fact, one-sixth of the average household food budget goes on packaging and it makes up a third of our household waste.

Yes but... what about the supermarkets and suppliers – what are they doing? Agreed, the amount of pointless packaging has to be reduced. Shrink-wrapped swedes and cucumbers, apples in polystyrene trays and tubes of tomato purée in cardboard cartons are examples of unnecessary packaging.

Businesses are under Government orders to recycle their packaging waste, and now many food producers have signed up to a voluntary agreement to reduce the amount of packaging used, called the Courtauld Commitment. If progress is not fast enough, the government promises to intervene.

Solution

Otherwise, until such a time as they all act, we can take responsibility for reducing the amount of packaging waste that we bring into our homes.

That which we cannot avoid, we can choose to dispose of through re-use or recycling rather than landfill.

4.3 REDUCE FOOD PACKAGING (Cont'd)

The Practical Action Plan

Your savings

Bagged produce tends to cost more than loose. For example, bagged onions in Sainsbury's cost £2.22 a kg whilst loose they are only 90p a kg. Apples cost £2 for a tray of 4 but only £1 for 4 when bought loose. Ready-chopped food stuffs last less time & cost more; lettuce leaves sold as bagged salad costs £1, a lettuce costs 80p for twice as much. It all adds up; why pay for packaging you just throw away? Taking your own bags will save you money and reduce waste.

Notes:

Next steps, hints & tips

- Buy fruit and vegetables loose or in paper bags from local shops.
- Take bags with you to the shops.
- Always carry a spare bag for spontaneous shopping!
- Choose larger sizes rather than individually packaged portions.
- Buy a single larger size container (e.g. yoghurt) and decant it.
- Buy re-fills e.g. for washing powder and other detergents.
- Look for biodegradable packaging, e.g. cardboard or cornstarch based.
- Use the local milkman who will deliver in glass bottles (www.milkandmore.co.uk).
- Look for products that come in recycled or lighter materials.
- Ask shop managers what they're doing to reduce packaging and insist they step up their efforts.
- Re-use or recycle all the waste packaging that you can – many containers make great seedling trays & plant pots!

More info: see www.recyclenow.com for more info on the Courtauld agreement and what manufacturers are doing. See the waste section to follow. Go to www.wasteaware.org.uk for recycling information.

Transition Streets
4.4 REDUCE FOOD WASTE

The Practical Action Plan

Cost: none	£ Savings: low-med	Effort: low	CO2 saved: low-med

Food challenge

Around a third of all the food we buy ends up being thrown in the bin and most of this could have been eaten. Reducing food waste is a major issue, and not just about good food going to waste. Wasting food costs the average family hundreds of pounds a year and has serious environmental implications too. If we all stop wasting food that could have been eaten, the CO2 impact would be the equivalent of taking 1 in 5 cars off the road (england.lovefoodhatewaste.com).

Solution

A number of issues lie at the heart of this problem:

- A lack of planning when food shopping – we buy more than we need, and then it goes off (often seduced by Buy One, Get One Free type offers).
- Poor food storage knowledge – things go off sooner than they would if we knew how to keep them fresh.
- A lack of confidence around cooking e.g. how to make tasty food from leftovers, portion control.
- Confusion over food date labels e.g. best before versus use by.

Of course some food waste is unavoidable. Home composting or using your District Council food waste recycling scheme (your green bin) ensures the impacts are minimised.

Yes but... I love my food and don't want to do without! Reducing food waste and saving money does not mean cutting down on the pleasure of eating. If anything, planning well, eating well, saving money and reducing CO2 will leave us with a small glow of self-congratulation.

Transition Streets
4.4 REDUCE FOOD WASTE (Cont'd)

The Practical Action Plan

Your savings

The average household wastes £480 a year, rising to £680 for a family with children. Save on your food bill by following these simple steps >>>

Notes:

Next steps, hints & tips

- We often waste carbs – rice, pasta, potatoes & bread. Keep bread in the freezer & take out half a loaf at a time. Freeze left overs for a lazy day...
- Measure portions more accurately e.g. portion of rice = ¼ of a mug. Use the online portion calculator at www.lovefoodhatewaste.com
- Plan meals ahead, and write a shopping list accordingly. You will save time and spend less.
- Share favourite recipes with friends. Swap ideas with your Streets Group.
- Keep essentials in the cupboard, fridge and freezer and you will always be able to make a meal.
- Know about dates - Use-by : never eat products after this date. Best-before: you can still eat them but they might not taste as good.
- Keep an eye on dated produce & eat it in time, or else freeze it.
- Ensure your fridge is cold enough (1-5 degrees).
- Learn how to use leftovers. Try www.bbcgoodfood.com /content/recipes/favourites/leftovers/.

More info: www.lovefoodhatewaste.com – government funded website dedicated to reducing our food waste – lots of great tips and recipes.

Transition Streets
4.5 WHY TRY ORGANIC?

The Practical Action Plan

Cost: none-med	£ Savings: none-low	Effort: low	CO2 saved: low-med

Food challenge

Four good reasons to eat organic food:

- Over 20% of the UK's greenhouse gas emissions come from food and farming today. Chemical nitrogen fertiliser manufacturing is the worst offender. To produce just 1 tonne of this takes 1 tonne of oil, produces 7 tonnes of greenhouse gasses & takes 100 tonnes of water. Organic farmers work without harmful chemicals and artificial fertilisers and do not allow the use of genetic engineering (GMOs).
- Organic food has higher amounts of minerals and vitamins. It avoids pesticides and controversial additives including aspartame, MSG & hydrogenated fats. Organic milk for example, is on average 68% higher in Omega 3 essential fatty acids. Non-organic leafy greens, potatoes and strawberries are particularly heavily-sprayed with chemicals, and washing cannot remove all the residues.
- Organic animals are not subjected to routine use of antibiotics.
- Switching to organic farming is much better for the environment. For example, if 10,000 small to medium sized farms converted to organic production, the soil would be able to store enough carbon to offset 1,174,400 cars.

SOIL ASSOCIATION · ORGANIC STANDARD · ECO CERT · WHOLESOME FOOD ASSOCIATION

Yes but... it's much more expensive. Organic food does often cost more, depending on what you are buying and when, but it depends largely on the seller. The reasons for this price difference are mainly to do with production costs, but also because many food suppliers, namely supermarkets, actually hide the real cost of food by importing cheaper food from overseas. The real cost of our food is disguised, it's not as cheap as we think it is. So who is paying the real price?

Your savings

It can be cheaper to buy organic produce using a box delivery scheme rather than supermarkets (and there is a lot less packaging).

In December 2012 we compared (1) a large fruit box and (2) a medium veg. box against the same goods from the supermarkets:

- Abel & Cole : (1) £13.00 (2) £16.50
- Sainsbury's : (1) £15.33 (2) £16.07
- Waitrose : (1) £15.82 (2) £17.04

Plant, insect and bird life is up to 50% greater on organic farms. Organic farming relies on wildlife to help control natural pests, so bugs, birds and bees flourish.

They are also not sprayed away by the fertilisers, chemicals and pesticides routinely used on non-organic farms, which can also be harmful to humans, causing infertility and cancers amongst other diseases.

Notes:

Hints & tips for paying less for your organic food

- Bulk buy with friends or neighbours (or your Transition Streets group).
- Buy a weekly vegetable/meat box (see earlier).
- Grow some of your own organic food (see later page for ideas).

More info: www.soilassociation.org

Your savings

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Notes:

Hints & tips for paying less for your organic food

- Bulk buy with friends or neighbours (or your Transition Streets group).
- Buy a weekly vegetable/meat box (see earlier).
- Grow some of your own organic food (see later page for ideas).

More info: www.soilassociation.org

Transition Streets

4.6 GROW YOUR OWN (GYO)

The Practical Action Plan

Cost: low	£ Savings: med	Effort: low-med	CO2 saved: low-med

Food challenge

By growing your own food you are starting to become less reliant on the big shopping conglomerates. Rising food costs, supply disruption and concerns over food quality all raise questions about the source of the food we eat. For example, if we have another fuel protest and supermarket shelves quickly empty, do you have any means to supplement what's in your freezer and cupboards with fresh, healthy produce? As food prices continue to rise, can you help protect your weekly food budget?




Solution

Anyone can grow their own fruit and vegetables, even when space is limited. Pots, window boxes and hanging baskets can all be turned into mini-food gardens, and give you months of delicious produce. Plus it's a wonderful, empowering feeling to eat what you have grown. It's not difficult to do and it can save you lots of money. Here are some easy to grow food items:

- Potatoes - can be in tubs or old sacks, top them up as leaves grow
- Garlic – store what you don't eat for a year round supply
- Mixed salad leaves – cut and come again varieties are great
- Strawberries – stick a few plants in a hanging basket
- Runner beans – they look lovely climbing up canes or sticks
- "Trained" fruit trees take up almost no space against a sunny fence

Yes but.... I do want to grow things but have no outside space at all. Do you have a neighbour with a garden that they struggle to maintain because of age, illness, or busyness? Perhaps you could suggest growing veg together and share the produce? (Is there a local community growing scheme?) Or you could register for your own allotment with your local parish council (see next page).

Transition Streets
4.6 GROW YOUR OWN (GYO) (Cont'd)

The Practical Action Plan

Your savings

Depends what you grow – but for example, a lettuce can cost £1 in the shops and a packet of seeds gives you about 250 lettuces for a similar price. Share seeds amongst your Streets group?

According to one study if you grow 5kg of tomatoes instead of buying them in a shop you could save around £20.

Yes but... It's a lot of work! Yes, it takes some effort to set up your kitchen garden (which can help you keep fit) but when designed well, it can also be very low maintenance. Research 'permaculture' principles for inspiration.

Notes:

Next steps, hints & tips

- Have a look at your outside space; what could you fit in? Containers? Hanging baskets? One flower bed becoming a veg bed instead?
- Visit a local community growing scheme (insert address here)
- Get some seeds, plant them, water them, wait a while, then eat!
- (Does your local council have free pocket-sized seasonal food calendars?)
- Find out more about basic skills online at sites such as the RHS grow your own section at www.rhs.org.uk or www.allotment.org.uk or www.bbc.co.uk/gardening.
- Join a local gardening course, or get a book from the library.
- The recycling centres and garden centres often have 2nd hand pots available; ask when you're there.

(Insert your local allotment contact details here)

Transition Streets
4.7 CARING CARNIVORES

The Practical Action Plan

Cost: none	£ Savings: low-med	Effort: low	CO2 saved: low-med

Food challenge

Recently, the UN made the headlines by suggesting that we all eat less meat, in order to help tackle climate change. They estimate that meat production accounts for nearly a fifth of global greenhouse gas emissions. Livestock farming can also cause deforestation & loss of biodiversity.

Generally, the higher up on the food chain you go – from plants to animals, say – the bigger the energy trail left behind by their production. It's not only what went into raising the animal you are eating, but also what went into producing its food. Compared to the amount of vegetarian food you can produce on the same piece of land, livestock reared for meat exacts a very heavy toll from both soil and water.

According to the World Health Organisation, Britons eats twice the amount of protein they need. Given we don't need to eat so much meat, replacing some of it with vegetarian options can save money on the weekly shop, and help the environment at the same time.

Solution

Choose the type of meat more carefully. For example, it takes 4 calories of plant protein to make 1 of chicken protein, while the ratio for pork is 17:1; for lamb, 50:1; and for beef 54:1. Red meat production takes lots of energy & diverts grain from other food uses.

Lots of people have signed up for "Meat Free Monday" (http://www.meatfreemondays.com/). Try starting to have 1 meat free day per week, and increase it slowly.

Yes but.... I'm a vegetarian so I'm OK. Vegetarian diets that include lots of milk, butter and cheese would probably not noticeably reduce emissions because dairy cows are a major source of methane, a potent greenhouse gas released through flatulence.

Your savings

In addition to money saved on your weekly shop (from buying less meat), you can improve your health. Of course, these savings will depend on what meat you buy and how often. Some people choose to eat less meat, but they do buy organic quality when they do purchase it.

A diet with less meat generally boosts the intake of fibre, fruit & vegetables, & generally lowers the intake of saturated fat. This dietary pattern helps to reduce the risk of chronic diseases such as cardiovascular disease and some cancers.

Notes:

Next steps, hints & tips

- You don't have to give it up! Gradually reduce the number of days you eat meat per week.
- Eat more white meat (chicken and pork) rather than red. They have less impact in some ways as they come from animals that don't burp methane!
- Eat local meat, preferably pasture-fed, if possible to avoid emissions from long distance transport.
- Consider alternatives to dairy – there are lots of options available for cheese, milk, cream, yoghurt etc. – although know that soya may have travelled thousands of miles, from where it is grown in what was the Brazilian rainforest.
- Try new vegetarian, dairy free recipes. Plenty of choice online: www.vegsoc.org/cordonvert/recipes www.bbc.co.uk/food/recipes or see cook books in the library.
- Next time you decide to go out for dinner, try a vegetarian restaurant or the veggie options – see for yourself how good it can be.

More info: The Vegetarian Society www.vegsoc.org.uk
www.guardian.co.uk/food/environment pages for both sides of the debate.

Energy saving tips when cooking

- Only boil the water you need in your kettle, and de-scale it occasionally.
- Cut food into smaller pieces to speed up cooking time.
- Use the right sized pan for the job, and the right sized hob ring for each pan.
- Keep lids on pans as much as you can to reduce heat loss – turn the heat down when it reaches the boil.
- Keep the oven door shut as much as possible; make sure the glass door is clean so you can see what's going on.
- Cooking big batches of food is more energy-efficient. Store spare portions in the freezer to give you a supply of ready meals.
- Defrost food in the fridge overnight rather than microwave it.
- Cover food with a microwave-safe lid or pierced cling film to hold in moisture and speed up cooking times in the microwave.
- Is a microwave better than the hob or oven? It depends...
  - If you are cooking something small-to-medium size (e.g baked potatoes, vegetables, ready meals, lasagna) then a microwave is always more efficient in terms of energy consumption.
  - If you are cooking several things at once (like a roast + veg + potatoes) then a conventional oven may be better.
  - A good guide is to compare the time. If it takes less time in the microwave, then it takes less energy.

Notes:

Transition Streets
4.9 YOUR FOOD ACTION PLAN

The Practical Action Plan

Reminder

Possible actions:

4.2 Buy local, seasonal foods
4.3 Reduce food packaging
4.4 Reduce food waste
4.5 Why try organic?
4.6 Grow your own
4.7 Caring carnivores
4.8 Cooking efficiently

What other ideas does your group have that aren't covered above? Add them below if you think they are relevant for you...

My actions	Already done	When I'll do this	Notes

Group actions

How can you help each other out in your group? List team actions here (with named person & due date)...

4.10 THE BIGGER PICTURE DISCUSSION

The Practical Action Plan

Questions for debate

We saw in the first action that buying local, seasonal, organic food from independent shops has environmental and financial savings, as well as helping our local economy to thrive.

However, many of us shop at major supermarkets. (For more about supermarkets see 4.12.)

- What benefits do these large supermarket chains offer us?
- What are the downsides?
- How important is a strong, local food system to our town and our community?
- How might you overcome some of the barriers to supporting local shops and buying organic produce?

Notes:

To understand better the ethics and environmental impact of supermarkets, have a look at:

1. www.ethicalconsumer.org website for their ranking of supermarkets. (Morrisons gets a rating of 3/20, Sainsbury's 2/20 and Tesco only 1/20. Waitrose fares a little better but is still only 4.5/20. Budgens and Londis come out top at 7/20)
2. The article on the comsumerwatch.org.uk website "What's wrong with supermarkets". You can download the booklet from this site. Whilst slightly dated, it still makes interesting reading.

Here are some extracts from the Consumer Watch booklet, about the farming crisis:

In 1939, Britain had half a million farms, most less than 100 acres and worked by around 15% of the population. Britain today has lost over a third of its farms and the agricultural workforce is in serious decline.

Less than 2% of the UK workforce is currently engaged in farming, and the government predicts that by 2006, 25% of the remaining farms in the UK will have gone out of business or merged, with a further 50,000 people forced to leave farming.

The average farm income in 2002/3 was £12,500 although incomes for some, predominantly small farmers, remain below the minimum wage.

Fifty years ago, farmers in Europe and North America received 45-60% per cent of the money that consumers spent on food. Today, that proportion has dropped dramatically to just 7% in the UK and 3.5% in the USA, but remains at 18% in France.

The supermarkets and big processors are increasing their share of the profit margin by squeezing the whole supply chain, and the farmers at the end of the chain are in the weakest position. Agricultural subsidies essentially go straight into supermarket profits.

Transition Streets
4.11 FOOD , POPULATION, OIL – a global picture

The following pages are for reference information only, and don't need to be discussed at the food session.

Food, population, oil – a global picture

"There are nearly 7 billion of us living on the earth, and the human population is increasing by nearly 80 million people a year. Today the biggest threat to human wellbeing – our food, water, energy, as well as to other species, and to the earth as we know it, might well be ourselves. The issue of population size is controversial, because it touches on the most personal decisions we make. But we ignore it at our peril." David Attenborough 'BBC Horizon Documentary: How Many People Can Live on Planet Earth?

One in six people across the world routinely goes hungry. In the 1920s there were 2 billion people on the earth, now there are nearly 7 billion.

Global food prices in the last few years have risen sharply causing serious malnutrition to spread. From the 1950s the Green Revolution led to huge increases in crop yields, with grain production increasing by over 250% . But since then world population has grown by about 4 billion, and now the oil and natural gas supplies on which this agricultural system depends) are set to decline dramatically over the next few decades.

Growing populations, falling energy sources and food shortages will create the "perfect storm" by 2030, a UK government chief scientist has warned. He has said that food reserves are at a 50-year low but the world will require 50% more energy, food and water by 2030.

The peaking of world oil production will seriously test our current food systems. The price of grain is generally rising due to rising world oil prices, increased demand due to population, climate change impacts, loss of agricultural land to residential and industrial development and growing consumer demand. Food riots have recently occurred in some countries.

The need to spend billions of dollars on wars, border security, and peacekeeping arguably is linked to a disregard for the world's pressing social and environmental problems. "The silent hunger crisis — affecting one sixth of all of humanity — poses a serious risk for world peace and security." said a UN spokesman.

Reference info

Corporate Watch – www.corporatewatch.org.uk

Courtauld Commitment - www.wrap.org.uk/content/what-is-courtauld

BBC NEWS : Food prices across the ages - news.bbc.co.uk/1/hi/business/7213462.stm

Eating Oil: Food in a changing climate (2001) published by Sustain and the Elm Farm Research Centre

Waste & Resources Action Programme (WRAP) - www.wrap.org.uk

Soil Association - www.soilassociation.org

Global Health & Fitness - www.globalhealthandfitness.com/organic

Dine Organic - dineorganic.com

Pesticide Action Network - www.panna.org

Friends of the Earth press release "Supermarket power threatens farmers" 26/1/02.

Extent of farm crisis revealed' Patrick Wintour. Guardian 11/4/04

Robert Harris 'Incomes slowly recovering' Farmers Weekly 30/1/03

Jules Pretty 2001 ' Some Benefits and Drawbacks of Local Food Systems'

"Assessing the global food crisis" BBC

Kindall, Henery W & Pimentel, David (May 1994). "Constraints on the Expansion of the GlobalFood Supply"

World faces 'perfect storm' of problems by 2030 - The Guardian. March 18, 2009

Global crisis 'to strike by 2030'. BBC News. March 19, 2009.

"1/6th of humanity undernourished"- FAO of the United Nations, 2009

"Peak Oil And Famine: Four Billion Deaths". Countercurrents. website

"2008: The year of global food crisis". Sunday Herald.

Food crisis will take hold before climate change, warns chief scientist – The Guardian

Global food crisis looms as climate change and fuel shortages bite – John Vidal, The Guardian

Global Food Shortages Could 'Continue for Decades' – The Market Oracle

The World's Growing Food-Price Crisis – Time Magazine

The Worldwatch Institute - www.worldwatch.org

Incredible edible – www.incredibleedible.org.uk

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5. Wasting away

Today's meeting is on **Waste**

But first!

Discuss how you have all got on with your actions from the **Food** chapter. (Your action plan is in section 4.9).

What have you all achieved?

What was hard?

What do you still want to get done?

Notes:

Transition Streets
5.1 WASTING AWAY

The Practical Action Plan

The facts

The facts about waste are shocking :

- In 2010, total waste generated in England was estimated as 177 million tonnes.
- The waste that we produce costs UK businesses £885 million to manage. Waste management costs to local authorities for 2011-12 are estimated at £3.2 billion.
- UK householders spend £12.5b every year on food that is wasted.
- It is estimated that £140m p.a. of used clothing goes to landfill
- Almost 25% of used electrical products taken to household waste recycling centres each year could be reused, with a value of £200m.

The good news is that household recycling has risen from 11% in 2001 to 43% in 2013, and more than half of business waste is now recycled. This figure is over 50% in Dacorum and Three Rivers district, with a target of 60% (substitute these for your area).

Reducing the amount of waste we produce will:

- Save resources – many discarded products contain resources that are running out. Using them longer saves digging up even more.
- Save energy – making new goods takes energy – better to keep the old ones in use as long as possible.
- Reduce climate change – rotting rubbish produces methane, which is 21 times more effective at trapping heat than CO_2.

Recycling is important, but it is even more important that we try to use less stuff in the first place. The options for dealing with waste, in order of preference, are:

1. **Avoid** – do you really need it?
2. **Reduce** – do you need as much of it?
3. **Reuse** – can it be fixed, used by others?
4. **Recycle** - can it be broken down and used again?
5. **Landfill and incineration** – the last resort.

The Practical Action Plan

So what can you do about it?

Each of these actions will help you reduce the amount of waste that you produce. In your group, have a brief chat about each item and then decide which ones you want to tackle and when. Record your own action plan on section 5.7.

- **The Story of Stuff (don't need it? don't buy it)** – learn more about the impacts of our excessive consumption (of course, we all need to buy the essentials) and see if this affects your buying decisions. (5.3)
- **Reduce & reuse** – ideas for making things go further**.** (5.5)
- **Recycling** – your definitive guide to what we can recycle, when and where in your local Household Waste and Recycling Centres (5.6)
- **Make your own compost** – for anyone who loves to grow things and is ready to take care of their own compostable waste. (5.16)
- **Waste-free selebrations** – How can you enjoy Christmas, birthdays and parties without creating loads of waste? (5.18)

Please watch the Story of Stuff

What's this about?

The "Story of Stuff" is a 20-minute movie that can be watched free on-line at www.storyofstuff.org/movies-all/story-of-stuff

From its extraction through sale, use and disposal, all the stuff in our lives affects communities at home and abroad, yet most of this is hidden from view.

The Story of Stuff is a fast-paced, fact-filled look at the underside of our production and consumption patterns. The Story of Stuff exposes the connections between a huge number of environmental and social issues, and calls us together to create a more sustainable and just world.

It'll teach you something, it'll make you laugh, and it just may change the way you look at all the stuff in your life forever. It is American but entirely relevant for the UK too.

Questions for discussion

Having watched the video, discuss the following questions in your group (but do keep an eye on the time – spend no more than 15 minutes on your discussion):

1. What are some ways that we could change our economy to work less and live more? how can we hasten those changes?

2. How can we, our community, and our government focue less on consumer goods and more on things that really matter?

3. For those of us with children, how do we bring them up so they don't want lots of “stuff” that they don't need?

At just 22 weeks old, an average UK citizen will be responsible for the equivalent emissions of the greenhouse gas carbon dioxide as someone in Tanzania will generate in their whole lifetime. - Andrew Simms (2006) UK Interdependence Report, New Economics Foundation

Notes:

Transition Streets
5.3 REDUCE & REUSE

The Practical Action Plan

Cost: none	£ Savings: low-med	Effort: low	CO2 saved: low-med

Solutions

There are so many things we can do to reduce what we buy, and make better use of it. **Share ideas in your group**. Here are just a few:

- Get off the junk mail hit list - register at www.mpsonline.org.uk
- If something is broken, try to mend it or get it mended.
- Buy things from charity shops - toys, books, clothes... this means you are also supporting good causes and saving money. Donate stuff too.
- Use rechargeable batteries instead of throwaway ones - they pay for themselves quite quickly.
- Give your magazines and comics to your local surgery or neighbour.
- Use flasks or bottles that can be used again instead of drinks cartons or cans that you throw away.
- Try to buy things that are made from recycled materials.
- Get milk delivered to your door - each bottle is reused 12 times – try www.findmeamilkman.net .
- Get rid of junk online – someone will want it! Try www.freecycle.org
- Take re-usable shopping bags wherever you go.
- Buy or get free 2nd hand stuff on freecycle, MySkip, Ebay, Vskips etc
- Buy products with little/no packaging; leave it at the shop if you dare.
- Using disposable nappies? Try washing and re-using cloth ones.
- Set yourself a one-week challenge to buy “no things” all week except for food and health essentials. How did you do? Was it easy or hard?

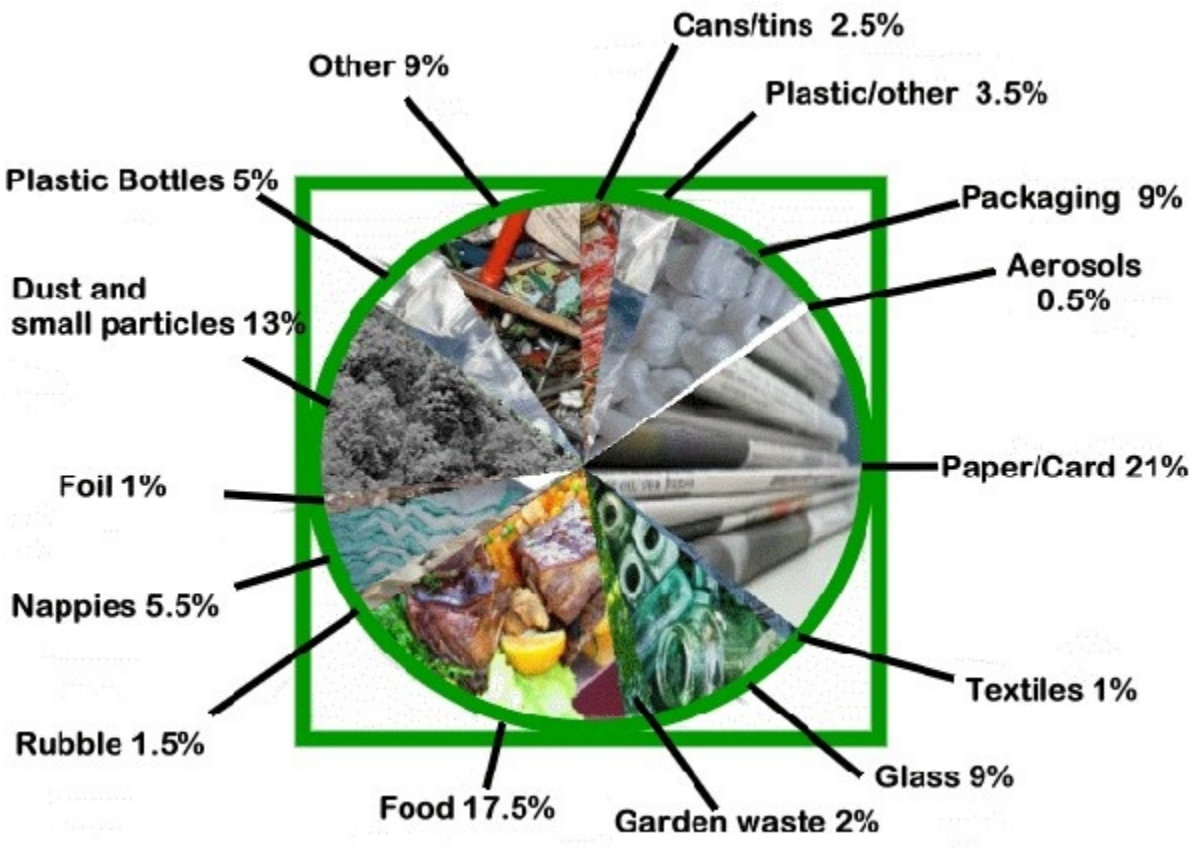
Notes:

Challenge

A large percentage of UK households still don't recycle enough, and throw everything that they consider 'rubbish' into their ordinary bin.

Much of this waste can be recycled and should be disposed of separately to general household waste. Look inside this rubbish bin to see how much of the contents should actually have been recycled.

What does our waste look like today?



The Practical Action Plan

Cost: none	£ Savings: none-low	Effort: low	CO2 saved: low-med

Why recycle?

Now we have thought about not buying as many things in the first place, let's look at how best to dispose of the stuff we do actually need. Recycling helps conserve important raw materials, energy and natural habitats for future use. It also reduces greenhouse gas emissions, which helps to tackle climate change.

The precise benefits of recycling depend on the material you're recycling - for example, recycling aluminium saves 95% of the energy of making it from scratch, while recycling glass saves 25%. That said, glass can be recycled again and again without losing its clarity or purity - unlike other materials. Recycling saves the UK 10 to 15 million tonnes of CO_2 annually, a saving equivalent to taking 3.5 million cars off the road.

What to recycle and where you can do it can be confusing, so this section gives you all the information that you need about what and where to recycle in (insert your area).

Yes but... doesn't everything we 'recycle' end up in landfill somewhere in the UK anyway? No - the government's Waste & Resources Action programme (WRAP) states that it is all recycled in the UK, or elsewhere. Even if it is recycled in China, there's significant carbon savings to be had.

I just don't have room to put it all. Recycling shouldn't increase the amount of room you need – just switch your large kitchen bin for a few smaller ones. The space needed will go down as you do the reduce & reuse actions.

Our local recycling scheme

(Recycling bins and colours, etc. vary widely from area to area. Use the next pages to describe the system in your area, with the following as an example. Get pictures from your local authority website).

	Type of bin or box:
• Food waste	= Green food caddy
• Garden waste	= Green wheeled bin
• "Dry refuse" including: 1) Newspapers, magazines and cardboard 2) cans, foil, plastic bottles, tetrapaks and Aerosol cans 3) Glass bottles and jars	= Blue-lidded wheely bin
• Anything else that doesn't go in the above bins or boxes	= Black or grey wheely bin

For full lists of what can go in each bin or sack, and other items must be taken to your local Recycling Centre, please see the next few pages...

Tips

- Make space next to your bin for recycling containers – then it's as simple to recycle as it is to throw it away.
- Make a visit to a recycling bank part of your routine – there are recycling facilities in (insert location here), as well as in the supermarket car-parks.
- Glass jars - just give them a rinse and recycle them with your glass bottles. Don't worry about removing labels.
- Shampoo and shower gel bottles are often forgotten - rinse out those empty bottles whilst you're in the shower.

Insert phone number & website for obtaining details of your local recycling scheme.

For general information about recycling see www.recyclenow.com

Food waste

See www.lovefoodhatewaste.com for lots of ideas about avoiding food waste. For example, food left in the pan can often be stored in the fridge and eaten a day or so later.

For recycling, unwanted **food waste** should be placed in a compostable **corn starch bin liner** inside your **food caddy or pod**, which is collected weekly.

Food waste includes meat and fish (raw or cooked, including bones), raw or cooked vegetables and fruit, dairy products such as cheese and eggs, bread, cakes and pastries, rice, pasta and beans, uneaten food from your plates and dishes, as well as tea bags and coffee grounds.

DO use **corn starch bin liners** or else you can wrap food tightly in newspaper.
DO use paper or kitchen towel to clean your caddy or pod regularly.
Corn starch bin liners are available at many supermarkets and online.
DON'T put **liquids** or **very wet food** in your caddy, as this will break the liner.
DON'T put food waste in with your garden waste.
DON'T put **cardboard** in with food or garden waste (cardboard goes in the "dry refuse" bin).
DON'T put **soil** in with food or garden waste.

Garden waste

Your green wheely bin is for garden waste only including:

- grass/hedge cuttings
- leaves
- twigs/small branches
- flowers (including cut flowers that are kept inside the house)
- prunings
- weeds
- small animal bedding

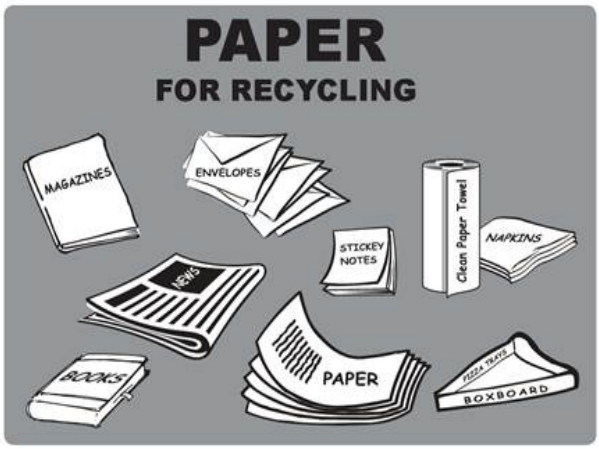
DON'T put **soil** in with garden waste.

If you have additional garden waste you can take it to your nearest Household Waste Recycling Centre.

The contents of the green wheeled bin are sent away for composting.

Notes

Paper and flattened cardboard



DO recycle all paper including yellow pages and envelopes

(But greasy, waved or shiny wrapping paper should go in the "Anything else" bin)

No need to remove windows from envelopes, or tape and staples from cardboard. These can now be removed in the recycling process.

DO put your cardboard in with your paper waste.

Flatten and **tear** large pieces to fit in your recycling bin **OR** leave very large pieces of cardboard next to your bin.

DON'T put your cardboard in with garden waste.

Notes

Rigid plastics, aluminium cans, tins, aerosols & cartons




DO put **plastic bottles, tubs, trays or pots** in your “dry refuse” bin.
YES to **margarine** and **ice cream tubs, yoghurt pots, plastic food trays** and **punnets**

DON'T put **plastic bags** out for recycling. You must take them to certain supermarkets.
DON'T put **cellophane, polystyrene** or **film wrapping** in with “dry refuse”.

Glass bottles and jars

DO put all **glass bottles** and **jars** in your “dry refuse” bin.

NO drinking glasses, light bulbs, spectacles, mirrors, plate glass, pyrex or other heat treated glass
NO broken glass to avoid accidental cuts during collection. You should take broken glass to your local Household Waste Recycling Centre (see later).

Everything else – except...

YES to everything else that can't be recycled

EXCEPT paint, building rubble, metal,electrical goods, construction and demolition waste. Please take these to a Household Waste Recycling Centre.

All of this information and more is available on your local council website: (insert website page here)

Another excellent site to refer to is Wasteaware:
(insert your area's Wasteaware website here)

Notes

Local Household Waste Recycling Centres

Enter details of your local Household Waste Recycling Centres here: location, opening times, phone numbers,website, etc.

What can be taken to Household Waste Recycling Centres?

- Aluminium Foil
- Batteries (Domestic, Car)
- Cans (Aerosol, Aluminium, Steel)
- Car batteries
- Cardboard
- CDs DVDs
- Electrical Appliances (WEEE)
- Fluorescent Lighting Tubes
- Food and Drink Cartons
- Fridges, Freezers, Oven/Hobs
- Glass
- Green Garden Waste
- Low Energy Light Bulbs
- Metals
- Mixed plastics
- Mobile phones
- Oil (Cooking)
- Oil (Engine)
- Ovens/Hobs
- Paper
- Plasterboard
- Plastic (Rigid)
- Plastic Bottles
- Plastic Carrier Bags
- Plastic food packaging
- Shoes
- Soil Conditioner
- Tetrapacks
- Textiles
- Toner Cartridges
- TVs and Monitors
- Tyres
- White Goods
- Wood
- Yellow Pages

What about all the other stuff that I can't recycle here?

In fact, you can recycle almost everything - from aerosols to bicycles. But some things are still beyond the reach of most local councils and you'll need to make a little more effort...

Check www.recyclenow.com to find out what can be recycled locally and where to send the stuff that can't. For example, used mobile phones can be sent free of charge to several charities. Some commercial organisations will pay you for your old phone.

Notes:

Why bother?

Recycling as much as you can will help conserve our valuable natural resources and energy supplies. It reduces the impacts of climate change and avoids landfill.

Given recycling keeps valuable resources in circulation, it also helps keep down the cost of goods that you buy.

Transition Streets

5.5 MAKE YOUR OWN COMPOST

The Practical Action Plan

Cost: none | **£ Savings: low** | **Effort: low** | **CO2 saved: low**

Why do it?

When we throw away food, we waste money and create landfill gas (see food section in workbook). Most local councils now collect food waste and turn it into low-cost (or free) organic compost which you can use on your garden. (Provide local details here).

However, if you grow anything at all, then with very little effort, you could soon be treating your garden to a nutritious diet of homemade compost - a climate-friendly alternative to store-bought, peat-based versions.

The first benefit of composting is that you'll notice is a flourishing garden or window-box. Compost improves the nutrient levels of your garden's soil. It also reduces erosion and increases its water retaining capacity. It will reduce your dependency on expensive, commercially-available products which can deplete valuable, carbon-storing peat bogs.

Why use non-peat compost? Lowland peat bogs and their wildlife are threatened through peat extraction for garden composts. Dragonflies, butterflies and birds depend on peat for their survival. Across the globe, peat covers about 3% of global land surface, yet the amount of carbon stored within it is enormous - equivalent to twice that of all the world's forests combined. Peat develops very slowly, and so when peat is mined for garden compost it takes 1,000 years to replace every metre that is taken away. (6)

Yes but... I only have pots and window-boxes, not a garden. You don't need to have a garden to make and use your own compost. Technology has caught up with modern, compact living and today's bins and wormeries are totally sealed and come in a range of sizes. Once the composting stage is over, add the mix to a window-box or give it to a gardening neighbour.

5.5 MAKE YOUR OWN COMPOST (Cont'd)

The Practical Action Plan

Getting started

You can make a traditional compost heap, or use a worm bin. There are many containers now on the market for making compost, although perfectly satisfactory ones can be constructed from scrap timber, old tyres, bricks or wire mesh. Advice on making a compost heap is widely available - see references below. Start a community compost project with help from Devon Composting Network see www.dccn.org.uk .

A worm bin is a container housing a colony of special types of worm. Worm bins can be kept indoors (with careful management) or out, and are ideal for households with no garden, as they produce only a small quantity of compost and a liquid, which forms a concentrated plant food. There are a variety of worm bins available for sale, complete with "worm starter kits".

Do compost	Don't compost
Fruit and vegetable waste and peelings	Cat or dog excrement - contains dangerous organisms that won't be killed by the decomposition process
Tea bags and coffee grounds	Meat - attracts vermin and flies - unless you're using a Bokashi system
Crushed egg shells	Dairy produce - attracts vermin and flies
Grass cuttings, leaves	Fish - attracts vermin and flies
Shredded paper and soft cardboard	Disposable nappies - attract vermin and flies
Human and animal hair	Shiny card - because of the chemicals used in the printing process
Vacuum dust (only from woollen carpets)	Hard objects like fruit stones

For more info on making compost or using wormeries see: www.recyclenow.com or www.gardenersworld.com. (Insert details here if your local council can supply compost bins at low cost)

Transition Streets

5.6 WASTE FREE CELEBRATIONS

The Practical Action Plan

Cost: none	£ Savings: low-med	Effort: med	CO2 saved: low-med

The problem

It's one thing to cut back our own consumption, but what about special occasions? What about birthdays, Christmas, other religious festivals, and parties (especially children's [parties)?

Does it matter? Well, according to WasteAware:

- The amount of wrapping paper estimated to be thrown away in the UK at Christmas could stretch around the equator nine times
- In the UK approximately 250 tonnes of Christmas trees that could have been recycled are simply thrown out after the holiday
- Every year the UK throws out an estimated 4,500 tonnes of tin foil over the Christmas period. This is enough to cover the whole of Suffolk.
- 13,350 tonnes of glass is thrown out in the UK during the festive season – from champagne, wine and liqueur bottles to mincemeat and cranberry sauce jars. Recycling all of them could an amount of CO_2 equivalent to taking 1,300 cars of the road for one year.

We know it's wrong to be so wasteful, but it's hard, socially, to question the rules. **Share your ideas in the group about things you've done to try and cut down on wasted "stuff" on occasions like this.**

Notes:

Parties: Keeping the fun, ditching the waste

Ideas to make gifts less wasteful:

- Buy presents that will last. This is probably the most important step; buy gifts that will still be used in 5, 10 20 years' time.
- Buy experience rather than "things". Theatre and spa vouchers for adults. Trips out for the children. Gifts of time, like offering to babysit for a busy parent or carer.
- Buy things that are made locally and /or from recycled materials (Insert appropriate local shops here). Yes, you can't "one click" so you need to plan ahead a little more.
- Club together for one bigger present rather than lots of little ones. This is especially true of childrens' parties where one parent can arrange it on behalf of the others.

Ideas to make parties less wasteful:

- Use real glasses instead of disposable ones. You may be able to hire them from the local supermarket
- Use real plates and cutlery, not disposable
- Set up the recycling system before the party so nothing needs sorting out at the end when you're tired
- Party bags for children: give one meaningful thing that will last, not lots of little ones.

Notes:

Share your tips for a green Christmas. Here are a few …

Trees and decorations

- Buy a living tree with roots in a pot, then keep it in the garden during the year. Remember to water it well.
- Make your own decorations (there are lots of ideas on-line) i.e. dried oranges, or biscuits. Use the little trays from your mince pies. Raid your recycling box!
- If you buy decorations, buy ones made from wood or other natural materials.
- Buy low energy LEDS or solar lights if you need new ones.

Cards & wrapping

- Buy cards made from recycled materials, and then recycle them!
- Use eCards or email, and use the money saved to buy an Oxfam Good Gift (or similar).
- Deliver local cards on foot or by bike.
- Instead of shiny metallic wrapping, use recyclable paper, or replace it with surplus clean cloth and ribbon, or even newspaper and ribbon.

Food

- Plan ahead and avoid over-purchasing. Plan how to use leftovers.#
- Replace some meat dishes with vegetarian ones

On the day

- Have rechargeable batteries ready and charged
- Have bags ready for recycling and sort straight away

And finally, question the “rules” about Christmas. Make it your day and one that works for your family.

Notes:

Transition Streets
5.7 YOUR WASTE ACTION PLAN

The Practical Action Plan

Reminder

Suggested actions:

Cut your spending – don't buy in
Reduce – buy less
Reuse – fix it or give to someone else
Recycle – recover waste materials
Make your own compost
Waste-free celebrations

What other ideas does your group have that aren't covered above? Add them below if you think they are relevant for you...

My actions	Already done	When I'll do this	Notes

Group actions

Between now and the Transport meeting, try the following:

- Work on the waste actions (above) and keep working on your Energy, Water and Food actions.
- Read the Transport section and note any actions you want to explore
- Be aware of the journeys you and your family make:
  - try and notice car journeys with just one or two people in the car. Was there a reasonable alternative?
  - try and work out roughly how much you spend on travel (bus and train, fuel, maintenance, flights, etc.) each year?

Reference information

- http://www.gov.uk/government/publications/waste-prevention-programme-for-england
- www.wrap.org.uk
- Your local council website - recycling pages
- www.recyclenow.com – Going greener in the garden
- www.lovefoodhatewaste.com – See “About Food Waste”
- www.nationaltrust.org – Information about going peat-free

6. Getting around

Today's meeting is on **Transport**.

But first!

Discuss how you have all got on with your actions from the **Waste** chapter. (Your action plan is on page 5.21).

What have you all achieved?

What was hard?

What do you still want to get done?

Notes:

The facts

Our decisions about how we get from A to B can have far-reaching effects. Planes, trains and cars all contribute to the growing concentration of climate change gases and pollution. But how do they compare and which is the worst?

The majority of the world's vehicles are powered by oil. Even those trains and cars powered by electricity usually rely on fossil fuels being burned in power stations.

Cars get us around in comfort and at our convenience, and surprisingly perhaps most (57%) car journeys are under 5 miles. Over time, fuel prices are generally increasing (due to issues with oil supply and demand among other things) and cars are expensive to run.

Congestion, fumes and parking add to our daily stress. Our cars pollute the air right here where we live. The World Health Organisation estimates that in the UK around 29,000 people a year die prematurely due to air pollution, most of it related to road vehicles.

For comparison, a distance such as London to Venice is around 1000 miles one way. Let's see the differences between our methods of transport over this kind of distance...

Transport	**CO2 Emissions *per passenger* for 1000 miles**
Plane	**275.8 kg**
Large Car	**414.2 kg (one person) 138.1 kg (with 3 people)**
Small Car	**206.0 kg (one person) 68.7 kg (with 3 people)**
Train	**85.9 kg**
Coach	**48.3 kg**
Bike	**0 kg**
Walking	**0 kg**

So what can you do about it?

If we can all reduce our private car use, then we can save money and our communities, both local and global, will also benefit enormously. We will also be healthier if we walk or cycle instead.

Fewer cars on the road means cleaner, less polluted air to breathe, leading to fewer asthma and breathing problems. Less cars also means more peace and quiet, and sense of space. Globally, reducing our CO2 emissions will leave many of our fellow humans in their homes, rather than on flooded plains.

Each of the actions below can significantly reduce the cost of running your own car, as well as improve your local and global environment, while still getting you from A to B.

It can be very useful to complete a travel diary to help you understand your own travel needs, especially your regular journeys (see page 6.20), and to identify which of the following actions are most appropriate for you.

Some of the following actions will cost you little or nothing, and those costs you do incur should be offset by your savings. In your group, have a chat about each item and then decide which ones you want to tackle and when. Record your own action plan at the end of this section.

6.2 Fuel efficient driving
6.3 Get on your bike
6.4 Walk this way
6.5 Take buses and trains
6.6 Try lift sharing
6.7 To fly or not to fly?
6.8 Holiday in the UK

Transition Streets

6.2 FUEL EFFICIENT DRIVING

The Practical Action Plan

Cost: none	£ Savings: med	Effort: low	CO2 saved: med

Solution

Changing **how** you drive could save more energy than changing **what** you drive. Fuel-efficient driving has a huge impact on our fuel use and hence our emissions - so much so that it has been included in driving tests since 2008.

It's easy to do, in fact it's lots of little actions that add up - everything from checking your tyre pressures to taking a few miles an hour off your motorway speed.

Your savings

The way you drive can cut your annual fuel consumption by 10% - translating to savings of around £120 a year for a typical car. It also significantly reduces your CO2 emissions.

In fact just by driving at 70mph rather than 80mph, this reduces your fuel use and CO2 emissions, **by almost a third**. Also you are less likely to have or to cause an accident at lower speeds. (5)

Yes but... If I close the windows and switch off the air-conditioning in July, I'll cook. If you're overheating on the motorway, it's more fuel-efficient to use air-con than opening the window or sunroof. At lower speeds, opening windows is more efficient.

6.2 FUEL EFFICIENT DRIVING (Cont'd)

The Practical Action Plan

Tips for better fuel efficiency

- Get your car serviced regularly for more efficient motoring.
- Stay at or within the speed limit - at 70mph you use about 9% more fuel than at 60mph, and 15% more than at 50mph.
- Keep your tyres inflated to the correct pressures. Under-inflated tyres create more resistance when your car is moving, so your engine has to work harder.
- Improve aerodynamics and reduce drag by leaving the roof rack at home and closing the windows and sunroof.
- Be gentle with your right foot - rapid acceleration takes a heavy toll on your fuel tank.
- Anticipate road conditions and drive smoothly, avoiding sharp acceleration and heavy braking.
- Don't idle – this uses more fuel in ten seconds than turning the engine off and on. Drive away immediately when starting from cold.
- Check your revs. Move up a gear before 2,500 rpm in a petrol car and 2,000 rpm in a diesel.
- Don't carry around unnecessary weight - empty your boot.
- Use air conditioning sparingly as it significantly increases fuel consumption at low speeds.
- Plan your journeys to avoid congestion, road works and getting lost.
- Try combining your trips.
- Avoid short trips - a cold engine gets through fuel almost twice as quickly as a hot one. (Conveniently, these journeys are the easiest to walk or cycle.)
- If you're stuck in a jam, switch the engine off if you expect to be there for more than a minute or two.

More info: Watch very useful ‘ecodriver.org.uk’ video on YouTube. Also see www.energysavingtrust.org.uk/travel .

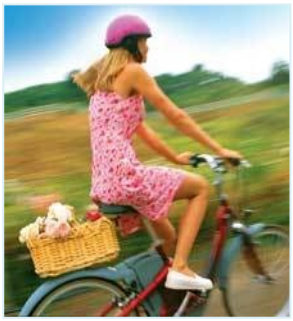
Transition Streets
6.3 GET ON YOUR BIKE

The Practical Action Plan

Cost: low-med	£ Savings: varied	Effort: varied	CO2 saved: varied

Solution

Cycling keeps you fit - it's fast, cheap, reliable and good for the environment. The transport of choice for the healthy and the climate conscious, bicycles are almost greenhouse-gas-free, good for the heart, and cheap - yet they account for less than 2% of journeys in the UK compared to 27% in The Netherlands. The emphasis is often put on cycling as a leisure pursuit, or something to do on Sundays with friends & family. That's fine, but the most important thing is utility cycling. It's amazing how much you can do practically with your bike; especially with a good set of pannier bags or basket.




Your savings & other benefits

- Cycling 20 miles/week reduces the risk of heart disease to less than half that for non-cyclists. Also you'll be as fit as someone 10 years younger. (6)
- Beat the queues - often the fastest way to get around town and you can park anywhere for free.
- A good set of panniers on your bike can mean no more lugging heavy bags across town. Pack them up in the shop & pop them straight on.
- It's cheap! A good bike costs around £75/yr or less to maintain. And of course, you save on the petrol and wear and tear costs on a car.
- The exhilaration! Whizz down hills with the wind in your hair...

Yes but... what about safety? It's <u>not</u> necessarily true that you're safer in a car than on a bike. It depends on training and riding with care. Recent research by UCL suggests that risks per hour are similar for driving, cycling and walking. Health benefits of cycling are greater than the fatality risk.

The Practical Action Plan

Tips for safe, enjoyable cycling

- Buy a bike from your local shop or local bike recycling centre (Insert website here) or the free-ads. If you use it for work you can save 30-40% through the government's www.cyclescheme.co.uk
- Get your bike ready for action - keep it well-maintained, and somewhere handy and accessible, along with your kit (a lock, lights, helmet, waterproofs and a high visibility vest). You can get it serviced at one of the local bike shops or (Insert website here)
- (If you have a local mobile repair service, insert it here). You may want to add mudguards to reduce spray.
- Turn your bike into a transport option, not just a leisure bike. Get some bike panniers, baskets and a rack so your bike is a realistic prospect for shopping, work and school trips.
- Work out your regular short trips and try them on your bike.
- Plan ahead - leave enough time to get there. Journey times are more predictable on a bike, since traffic congestion affects you less.
- Find a safe bike route to school for your children. Cycling to school, either on a tandem, independently, or with them in a trailer / bike seat, is a great way for kids to learn road safety, and get exercise.
- Join your local cycling group (Insert website here) and gain confidence through cycling in a group – or 'buddy-up' with someone who does the same route as you.
- Try free local SkyRides at weekends in summer – www.goskyride.com

Notes:

More info: The local cycling map is often free from local libraries, local cycle shops, the Tourist Information Centre, or the Council offices. It can be printed from some websites: (Insert web links here)

Transition Streets
6.4 WALK THIS WAY

The Practical Action Plan

Cost: none	£ Savings: varied	Effort: varied	CO2 saved: varied

Solution

- Only 30% of men and 20% of women in the UK are as fit as they should be for their age.
- In 1971, 80% of children walked to school without an adult, by 2006 the figure was 12%.
- Walking is a healthy form of exercise, burning 150-350 calories per hour, depending on your speed and weight.

Walking is the greenest and healthiest form of transport there is. As so many car journeys take place within a short distance of home, it is the first place to start when cutting back on car use. Away from the roads, there's a network of bike tracks and footpaths that can get you around just as well.

Notes:

Yes but... I don't have time. Are you sure? If you live within a mile of your village centre then time spent walking is a good use of time because it is a much healthier and sociable option and costing less than going (and parking!) by car.

It's raining and cold. There's no such thing as bad weather – just the wrong clothing! For trips to town, all you need is an umbrella and a windproof jacket. For longer walks, invest in a good set of waterproof trousers and a waterproof jacket with a hood, plus good waterproof shoes, boots or socks, then you can walk for hours staying snug and warm.

The Practical Action Plan

The first step

- If you travel to work or to take your children to school, try walking part of the journey either there or back. You could get off the train or bus a stop earlier, or park your car further away.
- Join a group - healthy walking programmes are often organised by ramblers' groups, medical practices, councils and health authorities.
- Join the walking bus for your children's school run, or organise one.
- Get the kit – waterproofs and comfortable walking shoes are essential. Wheeled shopping trolleys help with the shopping load.

Your savings and other benefits

- Walking leads to the release of the body's natural happy drugs - endorphins. You'll feel good and sleep better. And save on petrol costs.
- Unlike catching the bus or train, you can set your own schedule.
- Fit walkers are less likely to fall and suffer injuries such as hip fractures because the bones are strengthened.
- Walking keeps your weight down, your heart strong, reduces blood pressure and increases bone density. You can enjoy our local environment.
- A one mile trip to the town or village centre & back in a large car is 0.8kg of CO_2 you can save. More information: See the maps and walks below:

(Insert links to local walking groups and schemes here)

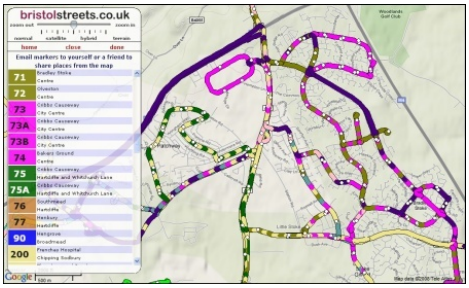
Transition Streets
6.5 TAKE BUSES & TRAINS

The Practical Action Plan

Cost: varied	£ Savings: varied	Effort: varied	CO2 saved: varied

Solution

- Half of us have never used the bus, yet 87% of us live within a 6-minute walk of a stop . (6)
- 70% of people (outside London) travel to work by car. (6)
- Buses, coaches and trains consume a lot of energy. But divide that by the number of passengers on a busy route and they're usually a far more climate-friendly option than cars or planes. We moan about public transport, but we do have local bus services, unlike much of the USA for example.
- Taking the Eurostar from London-Paris instead of flying cuts your CO2 emissions by at least two thirds. Sleeper trains across France to Italy, Spain, Germany or southern France may have fewer passengers per car than Eurostar, but on the other hand they travel at only 100mph or less, and so use far less energy than a high-speed train.
- Rail is a fast and relatively carbon-friendly way of getting from place to place. Taking the train from (Insert a couple of example commuter train journeys here) could be less than petrol plus car-parking.



Yes but... I don't have time to take the train or bus. It depends on the exact route you are going. Trips into town can be quicker on the bus when you take parking in to account. Long-distances can be faster on the train (London to Manchester in 2 hours 7 mins) and less stressful.

The train's too expensive. According to a National Consumer Council survey. 8/10 people said they would travel by train more often if it were cheaper. However cheap deals are often available depending on the destination, and how far in advance you book.

Transition Streets
6.5 TAKE BUSES & TRAINS (Cont'd)

The Practical Action Plan

Next steps

- Get hold of the local bus timetables and keep them handy. The bus maps and timetables are available online or from libraries. (Insert website)
- You can now buy an integrated day-long or week-long ticket across the bus services, called BUSnet for your area. From £4.50 for a day around your area.
- Try walking to town and getting the bus back; no parking problems and you don't have to carry the shopping home.
- See www.moneysavingexpert.com for ways to cut your train costs further. In fact, this is a great site for saving money everywhere!
- Try never to buy a rail ticket at the station on the day of travel. Use RailEasy for massive savings on early UK bookings and RailEurope for the same in Europe. Also group travel on the day (4 people +) into London is much reduced.
- Use Google Maps on-line journey planner to find out how to get to your destination by any transport you choose. Or (if you have a local journey planner insert it here)

Your savings & other benefits

• If you can use only public transport then you could consider selling your car – a cash boost plus on going savings.

• Buses can certainly be a good option for getting (insert example local journeys here) and back again. On trains you can work, relax, doze off and let somebody else take on the stress.

Notes:

More info: http://www.intalink.org.uk is a good starting place. Traveline on 0871 200 22 33. For rail info see www.nationalrail.co.uk, call 08457 484950 or call in at your local station.

Transition Streets
6.6 TRY LIFT SHARING

The Practical Action Plan

Cost: low	£ Savings: med-high	Effort: low	CO2 saved: med-high

Solution

There are a few online lift-sharing (car-pooling or car-sharing) schemes where you can offer up spare seats in your car – usually on a regular journey - or find others that go your way.

If you don't fancy joining an official scheme you could always set up your own mini system of lift-sharing with friends, work-colleagues, or neighbours! Ask around and see who may want to share your trip.

Your savings and other benefits

- Car-sharing commuters save an average of £350 a year compared to driving alone .
- You can also claim 5p per mile per passenger from your employer when you carry work colleagues as passengers on a business trips. Read more about it on HM Revenue and Customs website.
- Enjoy the company! You might meet incredible individuals and new friends that you would never otherwise have met .

(If you have a local lift share website, insert it here) uses technology to better match peoples' lift share needs.
There are many initiatives using GPS, i-phones and the web working together for real-time info on who is going where and when. Interesting to see how this enables easier sharing.

Safety

Some general advice on personal safety for those using a lift-sharing scheme (which applies to anyone who shares a car with a stranger):

- Every member is responsible for his or her own safety.
- Avoid exchanging home addresses with your travelling companion before you meet them or arrange to meet in a public place.
- Inform a friend or family member of who you will be travelling with, when and to where.
- Make sure you show each other some official ID so you know you're travelling with the right person.
- You are under no obligation to go ahead with any liftshare. If you have any doubts about your travelling companion, for any reason, you should avoid travelling with them.
- It is your responsibility to check that the person you are sharing with has all the legal driving documents such as driving licence, car insurance, MOT and car tax.

Notes:

More info: (If your local council runs a lift share scheme insert it here). There are several others, www.avego.com, www.freewheelers.co.uk, www.liftshare.com and www.carpooling.co.uk

Transition Streets

6.7 TO FLY OR NOT TO FLY?

The Practical Action Plan

Cost: varied	£ Savings: varied	Effort: varied	CO2 saved: high

Challenge

Just one long-haul flight could produce more emissions than the rest of the carbon footprint from everything else you do in a year.

Over 50% of us say we are more concerned about the effects of flying than 5 years ago, but only 8% of us actually fly less. (6)

UK holidaymakers find it very hard to compromise when it comes to flying. According to a survey by Loughborough University, fewer than one in five of us are trying to reduce the number of flights we take for environmental reasons.(6) Long-haul flights have the biggest climate impact of all our travel – but this seems to be a tough luxury to quit, and more of us are flying further than ever before. This makes it one of the world's fastest growing source of greenhouse gases.

It is really the huge distances covered when we fly that is the problem and by 2050 plane travel looks set to undo all the carbon savings we make elsewhere.

Yes but... don't developing countries depend on money from tourism? While it's true that tourism is a major source of income for developing countries, this wealth will not often 'trickle down' to local people. Most of it goes to the owners of the hotels, the safari parks etc. Meanwhile the impact of the flight contributes to, for example, worsening famine in parts of Africa. And in fact, 45% of air journeys in Europe are less than 500km – about the distance from London to the Scottish border. (6)

Solution

Who flies? And who pays the true price? Only about 5% of the world's population has ever flown. This minority, flying more and more often, lives mostly in industrialized countries. Climate change consequences, however, mainly affect those who have contributed little to it, i.e. people in developing countries.

It's almost impossible to keep our carbon footprint at a sustainable level if we fly, especially long-haul. Unlike heating or washing, flying is often, after all, a luxury. So what's the alternative?

Taking the train, ferry or coach to Europe, or holidaying in the UK, can substitute for a long-haul holiday. Otherwise taking the time to travel overland can be a good solution. See www.seat61.com for accurate info about how to get to any world destination without flying.

The debate about offsetting flights is ongoing. Friends of the Earth, Greenpeace and WWF-UK have expressed "strong concerns over [offsetting schemes'] environmental credibility". If you want to try it, www.atmosfair.de, www.climatefriendly.com, www.nativeenergy.com

Your savings and other benefits

If you replace a holiday based on flying with a holiday based on train or car travel, your savings will depend on relative costs of the two holidays, but there are some non-financial benefits to consider

- The journey becomes more part of the experience, rather than just getting there. You go slower and watch the scenery and culture change.
- No airport queues , delays, no tiny seats eating bad food, no jet lag, and less noise pollution for the millions living under the flight paths.
- Explore the many wonderful places in the UK & Europe – you can still reach the sun in less than a day (depending on the time of year!)
- Enjoy the adventure of overnight 'couchettes' and the idiosyncrasies of long-distance travel across other countries and cultures.
- Personal satisfaction and massive carbon savings..

More info: See http://en.wikipedia.org/wiki/Carbon_offset for a comprehensive discussion of both sides of the debate.

Transition Streets
6.8 HOLIDAY IN THE UK

The Practical Action Plan

Cost: varied	£ Savings: varied	Effort: low	CO2 saved: med-high

Solution

The UK can't be such a bad place for a holiday - after all, it attracts around 32 million overseas visitors every year. But is it a tempting enough proposition to make us give up our foreign trips? Overseas travel, as consumer surveys routinely report, ranks alongside such pleasures as moving house, changing bank account and passing a kidney stone as a source of stress and anxiety. Yet despite this, the environmental impact of flying, and the fact that many of us think Britain is becoming a better place to spend holidays, millions of us would still rather go abroad. In fact more Brits have been to Barcelona than Bath.

Yes but... what about the British weather? I don't want to sit and watch the rain for a week. Of course we are often put off holidaying in the UK by the risk of bad weather, and during heat waves and hotter summers we do book fewer foreign holidays. As climate change progresses over the next 60 years, popular tourist spots such as Spain's Costa-del-Sol may become too hot for us and it's predicted we'll take more holidays at home. Until then, if you want to sunbathe on a beach, the UK may not always be for you.

It's cheaper to go abroad than holiday in the UK. Hmmm can be true, this depends what you do and when you do it – renting cottages with friends, houseboats or camping are generally more affordable options.

6.8 HOLIDAY IN THE UK (Cont'd)

The Practical Action Plan

UK holiday ideas

1. Walking in the Lake District or the Pennines – check out all 14 National Parks at www.nationalparks.gov.uk
2. Learn to surf - take a surf holiday on the Cornish Coast.
3. Go see www.guardian.co.uk Top 10 UK lists e.g. 'Best City Breaks'.
4. Visit Britain's Heritage Cities such as York, Durham, Bath.
5. Go to sleep in London, wake up in the Scottish Highlands on the Caledonian Sleeper train from £19 single.
6. Stay in a castle in Scotland's most beautiful youth hostels - see the Scottish Youth Hostels website www.syha.org.uk.
7. Hire an historic building with your friends, through the Landmark Trust or National Trust.
8. Stay for free on an organic farm in the UK with 'World Wide Opportunities On Organic Farms' www.WWOOF.org.uk.
9. Find environmentally friendly holidays at www.greentraveller.co.uk.
10. Go camping or caravanning – see the Camping & Caravanning Club.
11. Stay on a houseboat – contact the Inland Waterways Association.
12. Volunteer, learn new skills and get a very cheap holiday at www.btcv.org.uk.
13. Go on an organised walking or cycling holiday.

Transition Streets

6.9 YOUR TRANSPORT ACTION PLAN

The Practical Action Plan

Reminder

Possible actions:

6.2 Fuel efficient driving
6.3 Get on your bike
6.4 Walk this way
6.5 Take buses and trains
6.6 Try lift sharing
6.7 To fly or not to fly
6.8 Holiday in the UK

What other ideas does your group have that aren't covered above? Add them below if you think they are relevant for you...

My actions	Already done	When I'll do this	Notes

Group actions

How can you help each other out in your group? List team actions here (with named person & due date)...

The bigger picture

It seems that giving up our cars is one of the hardest things to do. Obviously, this is influenced by the cost and availability of suitable public transport options. Given this may take some time to change.. .

- What sort of changes would you need to make in your life to significantly cut your dependence on your car?
- What would your friends and family think?
- How do you feel about the 'to fly or not to fly' question?

Insert any arrangements for the last session here, e.g. Don't forget to ask someone in your group to contact the Project Coordinator about the date of your last session, so they can come to your 'wrapping up' and see how you've got on (if you are happy with this).

Notes:

Transition Streets

6.11 *OPTIONAL* - YOUR TRAVEL DIARY

The Practical Action Plan

Diary

Use the form below to record your travel over the next couple of weeks. This information should help you understand more about the kind of journeys you make (especially the regular ones), and why.

Date	Travel From	To	Reason	How I got there

Reference information

www.dft.gov.uk/vca//fcb/smarter-driving-tips.asp

www.ucl.ac.uk/news/news-articles/1212/06122012-cycling-risk

www.walktoschool.org.uk

www.seat61.com/CO2flights

walking.about.com/od/beginners/tp/startwalking.htm

www.monbiot.com/archives/1998/05/23/go-home/

www.sustrans.org.uk

7. Wrapping up

Today's meeting is concerned with **wrapping up** and **looking forward**

But first!

Discuss how you have all got on with your actions from the Transport chapter. (Your action plan is in Section 6.9).

What have you all achieved?

What was hard?

What do you still want to get done?

Notes:

7.1 WRAPPING UP

Introduction

Well done! You have now completed the main content of the Transition Streets programme. This session is all about evaluating and celebrating your achievements, and deciding whether your group wishes to continue working together.

You may already have formed your own plans about the next steps for your group – for example, going again through the sessions and picking up some new actions, or starting to explore some of the advanced (often more expensive) options presented at the end of some of the chapters.

If you decide to continue (and we sincerely hope you do) then it's probably helpful for you to agree the purpose of the group moving forward, how often you'll meet and so on.

It may be useful to plan perhaps another 7 sessions and then have another evaluation, rather than agreeing an indefinite programme.

You may wish to get more involved in other community activities that are looking at reducing our energy dependence, such as (name of local group) (who run this programme). More information is provided later in this section and if you invite the facilitator to this session they will give you more details too.

The following pages cover:

- Final evaluation (7.3)
- Optional events (7.4)
- About Transition St Albans (7.5)
- Next steps (7.7)
- Celebrate!

The Practical Action Plan

How did you do?

<u>Please now complete the green 'after' section of the evaluation form at the back of this book</u> (At the very first meeting you did the blue columns).

Hopefully you will clearly see your progress as you add up the number of actions you have completed, or which are still in progress.

Also please complete the feedback section at the end of the evaluation form to let us know what you liked, and what you didn't like about the programme. <u>Many thanks!</u>

The completed forms need to be collected together and handed to the facilitator at your final meeting, or posted to (Co-ordinator's address)

They are valuable for showing the impact of the project, especially so we can feed tell our funders what their money has achieved. Hey also help us secure more funding to keep the programme running.

As a group discuss what you have achieved; what worked well, and what you have learned? What are you most proud of? What proved hardest to do?

Transition Together – evaluation form

Please complete this before your first session (the blue bits), and then again at the end of your last one (the green bits).This will help you see what changes you have made. It also helps us to evaluate the impact of the whole project.

Your name: _____ **Your group's name:** _____
Date of first session: _____ **Date of final session:** _____

	PLEASE COMPLETE THE BLUE COLUMNS AT THE START OF THE PROGRAMME:					AND THE GREEN ONES AT THE END OF THE PROGRAMME:			
1.	What do you hope to gain from being part of Transition Together (please list up to 3 things):					Did you meet your objectives (e.g. all, most, some, none):			
	In this section, please rate the following statements:	**Strongly agree**	**Somewhat agree**	**Somewhat disagree**	**Strongly disagree**	**Strongly agree**	**Somewhat agree**	**Somewhat disagree**	**Strongly disagree**
2.	I feel positive about the future.	1	2	3	4	1	2	3	4

The Practical Action Plan

Website

If you haven't already visited our website, and you have internet access, then please see (your local group's website)

It provides general information about the groups and local events that you might want to get involved with.

Notes:

Your stories

Would you like to write a 'success story' about your group? Would you be willing to supply us a quote about your experiences of doing the project, so that we can tell other people about how is has been for you? We can put these on the website and use them to help inform others about the benefits of Transition Streets. Please let the facilitator know at your meeting, or call/email us.

Contact Transition Streets: (Insert phone number, email address and website details here)

The Practical Action Plan

About The Transition Network

(Your group name) is part of a network of Transition initiatives. What is a Transition Initiative? It's a place where there's a community-led process that helps that town/village/city/neighbourhood become stronger and happier.

It's happening in well over a thousand highly diverse communities across the world - from towns in Australia to neighbourhoods in Portugal, from cities in Brazil to rural communities in Slovenia, from urban locations in Britain to islands off the coast of Canada.

These communities have started up projects in areas of food, transport, energy, education, housing, waste, arts etc. as small-scale local responses to the global challenges of climate change, economic hardship and shrinking supplies of cheap energy. Together, these small-scale responses make up something much bigger, and help show the way forward for governments, business and the rest of us.

Really, it's the opposite of us sitting in our armchairs complaining about what's wrong, and instead, it's about getting up and doing something constructive about it alongside our neighbours and fellow townsfolk. People say that as a result of being involved in their local "transition initiative", they're happier, their community feels more robust and they have made a lot of new friends.

About your Transition Town

(Write about your local community initiative here, using the following as an example)

Transition St Albans (TSA) is a group of ordinary people of St Albans exploring how to make our city more sustainable, together. We want to find positive and creative ways to act together locally to address the challenges of climate change and declining cheap energy supplies.

There are a number of reasons why we think making this transition is necessary, but essentially we are strengthening our communities to be resilient in the face of climate change and peak oil. For further reading about Peak Oil see the section at the end of this chapter.

We have an active **Home Grown Food Group** that runs the demonstration garden outside the Courtyard Cafe, a series of Open Food Gardens every summer, and our seedling swap and Harvest events. Our Energy Group runs the **Energy Open Homes** weekend and is researching community energy. Our **Awareness-raising Group** runs our events and tries to get people engaged. We are aiming to establish a **Transport Group**.

Want to get involved? Most months we have one open event (all listed on our website) plus the purely social Green Drinks (second Tuesday of every month). Please drop in, get chatting, and learn more.

(Insert your community group's logo here)

(Your community group's name) – it's right here on your doorstep – please join us. See (website) or email (email address), and we'll help you find the best way for you to get involved.

The Practical Action Plan

Where to now?

Think about where you will go from here, either on your own or with some or all of your group.

Will you continue to complete the basic actions, come up with some new ones, do some of the optional sessions, get more involved with TSA or other local community groups, lobby the government for better leadership on sustainability issues, grow more carrots..?

Discussion

As an individual: are there actions you still need to complete? Ones you never started? Things you want to learn more about? What are your next steps, and how will you make sure you do them?

As a group: Do you want to keep meeting? If yes, will it be purely social or will you have an aim? What will it be? How often will you meet? Will you invite others?

In your community: What does your street / community need, to make it more environmentally sustainable? Does this group have a role in that? Where will you start?

Ideas for what to do next

Different groups do different things next. Here are some options, inspired by what others have done:

- Have a street party or social occasion that includes other households in your street (perhaps a “Big Lunch” www.thebiglunch.com)
- Start some shared veg gardening, or sharing produce you already grow
- Try a Playing Out day in your street, so children can play outside in safety (playingout.net)

- Which topics didn't you feel you had enough time to explore? How about a meeting to talk about that?
- Work out your household “carbon footprints” and meet to compare notes (try www.carbonaccount.com)
- Are there any community buildings in your area which you think could have community-funded solar panels on their roofs? (see your nearest community energy co-op website)
- Is there a local issue you would like to work together on: bus routes, cycle routes, rubbish, green spaces? Is there a common interest?
- How about walking or cycling together to visit local places of interest?

7.7 HELPING OTHERS TO PARTICIPATE

The Practical Action Plan

Mentor

Would you like to become a Transition Streets mentor? Now you know what it's all about, you could help another group to get started and to get the most from the programme. This is a great way you can give back to your local community. Please contact us to find out more.

Pay-it-forward

If you have enjoyed participating in this programme and would like others to have the same opportunity, please consider 'paying-it-forward'. Although this programme is funded at the moment, it can only cover the costs for a limited number of participants. If you would like to contribute something to the project, you can donate money that will enable another participant to undertake the programme for free, or rather, as a result of your own generosity. Each workbook costs about £15 to print, but whether & how much you donate is entirely up to you. If you would like to donate, please contact the Project Coordinator or give them cash/cheque at the meeting (cheques made out to Transition St Albans) to them– many thanks.

And now – take the time to celebrate
your achievements so far with your group!

The end

(but we hope it's just the beginning!)

Thanks for your participation, we hope you've enjoyed it.

Designed by …

TRANSITION TOWN
TOTNES

Run by …

(your local group logo)

Funded by …

(your funder's logo)

Acknowledgements

This workbook aims to bring together a wide range of credible expert advice that covers cost savings, energy reduction, CO_2 emissions reduction and general sustainability, in different areas of our lives. Our intent has been to compile this advice into a single reference source which can be adapted for use by people in the Transition Streets programme in the United Kingdom.

The sources of information include the Energy Saving Trust, the Soil Association, Waterwise, Sustrans, local authority websites and many others.

The Department for Energy and Climate Change made it possible for the "generic" text of this document to be freely downloadable from www.transitionstreets.org under the terms of the Creative Commons licence shown below.

Our thanks are also due to (editing team) who adapted the workbook for (local area) , and to (funders) who have enabled us to print copies of the workbook and launch the programme in our area.

Thanks are also due to many participants in the Transition Streets programme, whose feedback continues to help keep this workbook relevant and up-to-date.

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Transition Streets Evaluation Form

Please complete this before your first session (the blue bits), and then again at the end of your last one (the green bits).This will help you see what changes you have made. It also helps us to evaluate the impact of the whole project. On this first page we are also collecting demographic data about the type of heating system you use today, and the kind of home you live in – we hope you are happy to share this with us, but it's optional – many thanks.

Your name: **Your group's name:**

Date of first session: **Date of final session:**

Home address & postcode:

INFORMATION ABOUT YOUR HOUSEHOLD TODAY:

Number of adults: **Number of children:** **Number of bedrooms:**

Home age: ☐ Pre 1930 ☐ 1930-1995 ☐ Post 1995

Home fuel & heating system – please tick the box to show your main heating system(s) in use:

- **Biomass**: ☐ Boiler ☐ Stove
- **Coal**: ☐ Boiler - automatic (gravity) feed ☐ Boiler – manual feed ☐ Closed room heaters ☐ Open fires
- **Electricity**: ☐ Modern storage heaters – slimline ☐ Old storage heaters – large volume ☐ Room heaters – convector panel or radiant heaters
- **Gas**: ☐ Back boiler ☐ Boiler (average, 5-10 years old) ☐ Boiler (condensing) ☐ Boiler (new, less than 5 years old) ☐ Boiler (old, 12-15 years old) ☐ Room heaters ☐ Warm air
- **Oil**: ☐ Boiler (average, 5-10 years old) ☐ Boiler (condensing) ☐ Boiler (new, less than 5 years old) ☐ Boiler (old, 11-15 years old) ☐ Room heaters ☐ Warm air
- **LPG**: ☐ Boiler (average, 5-10 years old) ☐ Boiler (condensing) ☐ Boiler (new, less than 5 years old) ☐ Boiler (old, 12-15 years old)

Property type:

☐Detached bungalow ☐ Detached house ☐ End-terrace house ☐ Flat
☐ Maisonette ☐ Semi-detached bungalow ☐ Mid-terrace house ☐ Semi-detached house
☐ Other (please explain):

Types of insulation:

☐ Cavity wall ☐ Loft insulation ☐ Double glazing ☐ Draft exclusion ☐ Underfloor insulation

Current renewable energy technologies operating at your home:

☐ Biomass heating ☐ Ground source heat pump ☐ Hydroelectric power ☐ Photovoltaic solar panels
☐ Solar water heating ☐ Wind turbine ☐ Other (please explain):

Other:

How many light bulbs do you have?: How many of these are low energy bulbs?:

Do you have a green (or part green) electricity tariff? ☐ Yes ☐ No

Transition Streets Evaluation Form

	PLEASE COMPLETE THE BLUE COLUMNS AT THE START OF THE PROGRAMME:					AND THE GREEN ONES AT THE END OF THE PROGRAMME:			
1.	What do you hope to gain from being part of Transition Streets (please list up to 3 things):					Did you meet your objectives (e.g. all, most, some, none):			
	In this section, please rate the following statements:	**Strongly agree**	**Somewhat agree**	**Somewhat disagree**	**Strongly disagree**	**Strongly agree**	**Somewhat agree**	**Somewhat disagree**	**Strongly disagree**
2.	I feel positive about the future.	1	2	3	4	1	2	3	4
3.1	I feel that a strong sense of community is important in these uncertain times.	1	2	3	4	1	2	3	4
4.	I feel connected to, and a part of, my local community.	1	2	3	4	1	2	3	4
5.	I feel well informed about peak oil and climate change.	1	2	3	4	1	2	3	4
6.	I understand how these 2 issues affect me, my family, my local community, and the planet.	1	2	3	4	1	2	3	4
7.1	I know what practical, effective actions I can take to reduce the potential impacts on me/others.	1	2	3	4	1	2	3	4
8.	It's my responsibility to act in ways that will help reduce the potential impacts.	1	2	3	4	1	2	3	4
9.	I'm aware there are simple, easy things I can do to reduce household costs - and I know how to do them.	1	2	3	4	1	2	3	4
10.1	I am confident that I can and will make changes to my lifestyle that will last.	1	2	3	4	1	2	3	4
	Now about the actions… if you have already done some of these actions before you even start with Transition Streets then please let us know in the blue section. Then at the end of programme, come back and tell us what additional things you have done in the green section:								

Transition Streets Evaluation Form

	SPEND LESS ON ENERGY	Already done/doing this before Transition Streets	Did/doing this as part of Transition Streets (or more than I did before)	I plan to do this in the next few months
11.	Know how much you are using (monitor your usage in your home)	☐	☐	☐
12.	Be a real turn off (always turn things off at the wall when not in use)	☐	☐	☐
13.	See the light (install more low- energy light bulbs)	☐	☐	☐
14.	Control your heat (know how to use your heating system and thermostat)	☐	☐	☐
15.	Lagging (pipe work and hot water tank)	☐	☐	☐
16.	Draught proofing	☐	☐	☐
17.	Loft insulation	☐	☐	☐
18.	Cavity wall insulation	☐	☐	☐
	What other energy-related actions have you taken BEFORE starting Transition Streets that are not listed above:		And SINCE starting Transition Streets that are not listed above:	
	SPEND LESS ON WATER	**Already done/doing this before Transition Streets**	**Did/doing this as part of Transition Streets (or more than I did before)**	**I plan to do this in the next few months**
19.	Know how much you are using (monitor your water use at home)	☐	☐	☐
20.	Feel flushed (cistern displacement devices)	☐	☐	☐
21.	Taps, drips & leaks (don't leave taps running, fix drips & leaks)	☐	☐	☐
22.	Showers & baths (low flow short showers rather than baths)	☐	☐	☐
23.	Washing clothes (full loads, low temps, wear clothes longer)	☐	☐	☐
24.	The kitchen sink (use bowls, don't rinse or full loads in dishwasher)	☐	☐	☐
25.	Outdoors (water butts, no sprinklers, minimal hose, drought gardening)	☐	☐	☐
	What other water-related actions have you taken BEFORE starting Transition Streets that are not listed above:		And SINCE starting Transition Streets that are not listed above:	

Transition Streets Evaluation Form

	SPEND LESS, EAT WELL	Already done/doing this before Transition Streets	Did/doing this as part of Transition Streets (or more than I did before)	I plan to do this in the next few months
26.	Buy local & seasonal foods	☐	☐	☐
27.	Reduce food packaging	☐	☐	☐
28.	Minimise food waste	☐	☐	☐
29.	Go organic (buy organic)	☐	☐	☐
30.	Grow your own	☐	☐	☐
31.	Caring carnivores (eat less meat)	☐	☐	☐
	What other food-related actions have you taken BEFORE starting Transition Streets that are not listed above:		And SINCE starting Transition Streets that are not listed above:	
	WASTING AWAY	**Already done/doing this before Transition Streets**	**Did/doing this as part of Transition Streets (or more than I did before)**	**I plan to do this in the next few months**
32.	Avoid (don't buy stuff that's not essential)	☐	☐	☐
33.	Reduce (buy less)	☐	☐	☐
34.	Reuse (keep things in circulation rather than chuck them away)	☐	☐	☐
35.	Recycle (food, glass, plastics, tins… everything!)	☐	☐	☐
36.	Compost at home (make your own)	☐	☐	☐
	What other waste-related actions have you taken BEFORE starting Transition Streets that are not listed above:		And SINCE starting Transition Streets that are not listed above:	

Transition Streets Evaluation Form

	GETTING AROUND	Already done/doing this before Transition Streets	Did/doing this as part of Transition Streets (or more than I did before)	I plan to do this in the next few months
37.	Fuel efficient driving	☐	☐	☐
38.	Get on your bike (cycle don't drive)	☐	☐	☐
39.	Walk this way (walk don't drive)	☐	☐	☐
40.	Take buses and trains	☐	☐	☐
41.	Use car clubs	☐	☐	☐
42.	Try lift sharing	☐	☐	☐
43.	To fly or not to fly (fly less)	☐	☐	☐
44.	Holiday in the UK	☐	☐	☐

What other transport-related actions have you taken BEFORE starting Transition Streets that are not listed above:	And SINCE starting Transition Streets that are not listed above:

FEEDBACK ABOUT TRANSITION STREETS

And finally, at the end of your final session, please take a few moments to tell us what you liked most and least about Transition Streets, and any ideas for changes or addition…

Things I liked most:

Things I liked least:

Suggestions for changes and improvements:

Is your group going to keep meeting beyond the 'official' programme?

If you have valued being a part of this project, would you like to make a financial contribution so that someone else can participate in Transition Streets? We have limited funding and each folder costs us about £10, so if you'd like to 'pay it forward' please let us know… send us a cheque with this form, do an online transfer (contact us for details) or drop cash into the office. Thanks!