**ENERGY SAVING HACKS FOR THE HOME** 

JUDITH LEARY-JOYCE

There is no copyright on this booklet. All ideas are gathered from the internet and the author has no ownership.

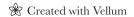
This book may be reproduced in any form in order to help those who have problems with a cold home.

Judith Leary-Joyce is not an expert. All information given here is to be used at the discretion of the reader.

Web links are provided purely to point the way for the reader, so they can research further to ensure they make the correct choice for their circumstance. No recommendations are intended.

No liability is assumed for losses or damages due to the information provided. You are responsible for your own choices, actions, and results.

Any damage to property or person is the responsibility of the reader



#### **CONTENTS**

1. Getting started	1
2. Insulate to stay warm, ventilate to stay healthy	3
3. Doors	6
4. Windows	11
5. Radiators	15
6. Floors	17
7. Saving energy in the kitchen	20
8. Other energy saving ideas	23
9. Home Improvement grants & how to apply	28
10. Further help and information	32

# CHAPTER 1 GETTING STARTED

f you're worried about staying warm this winter, then this booklet is for you.

Having written a book, Beginner's Guide to Eco Renovation, I began to wonder how it would be possible to create a warmer home without the benefit of a major renovation.

This booklet is the result. I trawled the web, gathering ideas for how to make your home more energy efficient. Some you'll know already, some may be new. I've included information about how to put the ideas into practice. Where it needs demonstration, I've included web links for video demonstrations. Youtube is a wonderful thing!

#### Areas covered are:

- Reducing draughts and cold coming into your home
- Knowing the air inlets you can and can't cover up
- Exploring energy saving options around the house
- · Home improvement grants you can apply for

None of these actions is a magic bullet, but together they can make a difference. And every bit will help.

Some of the ideas may require a small amount of cost, do-it-yourself knowledge or basic tools. The latter may be available to borrow. In the interests of reducing waste, you could try sites like Freegle<sup>1</sup> or FB Marketplace<sup>2</sup> and give a home to materials others don't need.

#### ABOUT THE WEB LINKS

Wherever possible, I've added in web links. The link takes you to the product mentioned. This is **NOT** a recommendation - it's intended to give you a start for your own research. I tried to find the least expensive, but do look further - you may find a bargain I missed.

I've also provided links to YouTube videos that show you how to put the ideas into action. So take a look and choose the actions that make sense and will work in your situation.

## Important - please read the section on ventilation before you start.

<sup>1.</sup> https://www.ilovefreegle.org

<sup>2.</sup> https://www.facebook.com/marketplace

# CHAPTER 2 INSULATE TO STAY WARM, VENTILATE TO STAY HEALTHY

#### **MPORTANT PLEASE READ**

This booklet is all about cutting down draughts in your home.

However draughts are not only horribly cold - they provide us with fresh air to breathe and remove excess moisture from the house, which, in turn, reduces condensation and the risk of mould.

So we have to find ways of changing the air on a regular basis without freezing you out.

#### WHY DO WE NEED VENTILATION?

Just by living, we produce moisture. Cooking, sweating, washing, breathing all release minute amounts of water that hang around in the air. Unless the air is changed and water dispersed, it will condense on cold surfaces – walls, windows, mirrors, - and in time produce mould. All this is bad for our health. Read about it here!

You need to insulate to stay warm and ventilate to stay healthy.

- When you are leaving a room, open the window for a few minutes to change the air.
- Open a window at night when the heating is switched off, especially in a bedroom where hours of breathing will produce moisture
- Removable insulation can be taken out briefly chimney balloon, draught excluders even a short
  time will change the air and remove the moisture.

<u>AIR BRICKS</u> – if you live in an old house or on the ground floor of a Victorian house, you may be tempted to cover up the external air bricks<sup>2</sup> that bring fresh air into the space under the suspended floor. **DON'T DO IT!** 

We need this fresh air under the floor, so it's very important that they remain open and clear.

#### Open the window

I know this will seem in direct opposition to everything else said in this booklet, but opening the window for a short time is probably your best option. Five minutes should be enough on a very cold day. Choose your moment and do it when the room is cooling down so you don't lose all your hard earned warmth. But please do it. It will save you loads of problems down the line with condensation and mould.

If you can manage to sleep with the window open a crack at night that will definitely reduce condensation.

**Trickle vents** - if you have double glazing, you'll probably have trickle vents - small vents that sit in the frame of a double glazed window. They allow air to flow in and out of the window, which helps to regulate the temperature and humidity. However when it's very cold you could decide to close these while you're in the room, then open them for short periods of time to change the air. Remember you do need

fresh air coming in to avoid condensation, so it's worth opening them regularly to remove moisture from the air.

**Fit a humidity sensing fan vent** - this will remove excess moisture from the air, preventing damage to walls and ceiling as well as reducing mould and mildew growth. Because of the humidity sensor it will only change the air when needed, keeping your home healthy while allowing you to reduce draughts and stay warmer without spending a fortune on heating. They are not expensive and can be purchased online<sup>3</sup> or any DIY store.<sup>4</sup>

http://tech-controllers.com/blog/fresh-air-in-your-house-all-year-round--learn-how-to-air-your-rooms-properly

<sup>2.</sup> https://cavitech-uk.com/blog/is-blocking-air-bricks-a-good-idea/

<sup>3.</sup> https://bit.ly/3fog6nv

<sup>4.</sup> https://bit.ly/3fqKqOl

## CHAPTER 3 **DOORS**

oors have to provide openings big enough for people and stuff to get through. So far, so blindingly obvious. Heat automatically travels from hot to cold, so open anything when the weather outside is cold and warm air will just float away.

**Step one -** make sure the door is open for as short a time as possible. Again, blindingly obvious, but still worth saying! It can be easy to forget to pull the door to if you're chatting with a neighbour or the postie.

**Step two** – check the amount of air coming in when the door is closed. This means looking at:

- How the door fits into the door frame
- How the door frame fits into the opening in the wall
- If your door has glass in it, how cold that feels
- How much cold air comes through your letterbox

All four are ways for warm air to leave the building and cold air to come in.

## INSULATING BETWEEN DOOR AND DOOR FRAME

Put your hand up against the join between the door and the door frame. If you can feel any draught at all, then you need draught excluders to fill in the gap.

Draught excluders are thick strips of foam that fit onto the door frame where it meets the door itself. They fill up any gaps between the two pieces of wood, blocking cold air coming in and the warm air from leaving.

<u>Self adhesive</u> – if you don't have any tools then go for a self adhesive draught seal tape<sup>1</sup>. Then all you'll need is a tape measure and a pair of scissors.

Clean down the inside of the door frame where you want to fix the tape, to remove any dirt, dust or grease that might stop it sticking, then pull off the backing and fix the strip into place.

**Memory foam tape** - this is tape that squashes when the door closes but returns to its old shape once it's open. This means it won't compress permanently and lose its ability to fill the space. Draught excluder tape is easily available at DIY<sup>2</sup> stores and online<sup>3</sup>.

## DRAUGHT REDUCTION BETWEEN DOOR AND FLOOR

It's rare for a door to fit tightly against the floor, so this is always a good place to check for draughts. Remember to check internal doors as well, especially if they link directly to a cold space like a hallway or porch.

**Draught excluder** – these are perfect to use whenever you close a door to another space. Lay it across the bottom of the door and tuck it in so you know you're blocking off all the cold air.

You can make them yourself quite easily – a quick search on the internet will provide other ideas<sup>4</sup> I'm sure. Some I've heard of:

- Cut the toes off old long socks and sew them together to form a tube that fits the width of the door exactly.
   Stuff with old clothes or rags
- Fold up any heavy piece of material and lay it along the base of the door – I used an old dressing gown for years and it did a great job
- You can buy smart draught excluders in department stores or online, but they won't do any more of a job than home made.

**Door brush seal** – this is a brush that attaches to the bottom of your door to block the draughts. It is more effective than a draught 'sausage' excluder, purely because it is there all the time and not just when you remember to put it in place. You can buy them from any DIY shop<sup>5</sup> or online<sup>6</sup>. Some are self-adhesive and some add in screws to secure the fit. They can be fitted to external and internal doors.

- Remember to measure your door before buying to make sure the brush is long enough.
- When fitting the brush to an external door, it's worth fixing it with screws as well as the inbuilt adhesive, because it is likely to take a lot of wear, (especially if you kick them closed like me) so it's worth making sure the brush is secure. Again Youtube can help with this, showing step by step fitting instructions.<sup>7</sup>
- You may need more tools for this a junior hacksaw to cut the strip to size, a screwdriver, a pair of pliers, a tape measure and pencil.

#### **DOORS**

**Letter boxes** – this is part of the door we take for granted, but which is essentially a dirty great hole for cold air to come in through. There are a couple of options:

- You can put on a **letterbox draught excluder** brushes that fill the gap to block air but allow your post to be delivered. (The Postie may not be so pleased, because it is a bit harder work!) You can buy the excluder from DIY stores<sup>8</sup> and online<sup>9</sup>. Letterboxes seem to be a universal size, but it would be worth measuring first just in case, to make sure you get the right one.
- I haven't seen it recently, but I recall, as a kid, we used to have **material flaps** attached to the top of the letterbox on the inside of the door. It's something you can make yourself any heavy material cut to a size that is bigger all round than the letterbox and attached just at the top. The flap will cover the space and will allow the post to be pushed through. A small elastic wire can be fitted (as for the curtains) to hold the cloth in place once the post has arrived.

Remember to collect your post as soon as it's delivered. If the Postie doesn't push the letters right through, it may leave you with a gaping hole into your home.

**Keyholes** – keyhole brushes stop cold air coming through the space. The brush fits underneath the handle, so use a screwdriver to take it off, fit the brush, then put the handle back again. Look on Youtube for short videos<sup>10</sup> to show you how to do this.

**Door frame to wall** – test out the join where the door frame meets the wall for small cracks that let cold air in. Transparent weather sealing tape from a DIY store<sup>11</sup> or online<sup>12</sup> will seal these up. Short video to show you how to use it here.<sup>13</sup>. Just

check it won't damage the paint of your wall - especially if you're in rented property. Put a small piece somewhere inconspicuous first to check it comes off easily without bringing the paint with it.

**Door Curtain** - hang a thick, heavy curtain on the inside of the front door (or any draughty door). Make sure the curtain covers the whole of the door frame, so all joins are well covered. The heavier the curtain the better it will be at stopping cold coming in. Keep it drawn unless you have to open the door. You can buy thermal insulated drapes online. More ideas about curtains in the section on windows.

**Build an internal porch** - if you have space and the skills, you can build an internal porch which will allow you to answer the front door without losing all the heat. You may be able to find old timber and doors online or via sites like Freegle<sup>14</sup> when people have timber left over from a renovation.

1. https://bit.ly/3fkShge

<sup>2.</sup> https://www.toolstation.com/stormguard-extra-thick-weatherstrip/ p39239

<sup>4.</sup> https://www.youtube.com/watch?v=1hXiGWJQ7y0

https://www.wickes.co.uk/Wickes-838mm-Door-Brush-Draught-Excluder---Gold-Effect/p/218014

https://www.insulationsuperstore.co.uk/product/garage-door-draughtexcluder-brush-seal-2514mm--3-x-838mm-lengths.html

<sup>7.</sup> https://www.youtube.com/watch?v=jLc2XPGkyUA&t=22s

https://www.diy.com/departments/diall-white-letterbox-draughtexcluder-h-80mm-w-342mm/1802854\_BQ.prd

<sup>9.</sup> https://lowenergysupermarket.com/product/letterbox-covers/

<sup>10.</sup> https://www.youtube.com/watch?v=6o\_\_TFXXxek

https://www.wickes.co.uk/Wickes-General-Purpose-Weatherproofing-Tape---76mm-x-8m/p/240631

<sup>12.</sup> https://bit.ly/3URCzJJ

<sup>13.</sup> https://www.youtube.com/watch?v=CsQrYUOkzcE

<sup>14.</sup> https://www.ilovefreegle.org

# CHAPTER 4 WINDOWS

ost of what we've said about doors also applies to windows. You need to make sure any joins are tight and don't allow cold air in and warm air out. The cold glass will also cool down any warm air that hits it.

**Draught excluder strips** – wash the internal window frame where it meets the glass window to remove dust, dirt and grease. Apply the self adhesive draught seal<sup>1</sup> and close the window up tight. See a video about fitting here<sup>2</sup>.

**Non-opening windows** – windows that don't need to open can be sealed up permanently using mastic sealant<sup>3</sup>. Youtube has demonstrations<sup>4</sup> to show you how to do it. As with the doors, make sure this won't damage the wall

**Windows you don't need to see through** – ask around for old bubble wrap and put this up on windows you don't look through. You can seal them into place with any sort of tape and the air in the bubble will add extra insulation to the cold window.

**Window to wall connection** – check out where the two meet. If there is a draught coming through use mastic<sup>5</sup> to fill the gaps.

**Window glass** — when warm air hits a cold surface, two things happen: the air cools down before circulating back into the room; as the air cools it drops the moisture it's carrying and produces condensation. So anything you can do to warm up the surface of the glass will help.

One option is to put on thermal insulation film<sup>6</sup>. Give the window pane a good clean, apply the film using the adhesive tape provided, then heat the film with a hair dryer so it smooths out and stretches over the glass. This is best used on single glazed panes as it can cause 'fogging' on double glazing. See video for how to do it here<sup>7</sup>.

**Magnetic secondary double glazing** - you can fit a sheet of rigid and transparent material like clear acrylic plastic or clear polystyrene to the window frame in such a way that it can be put up or taken down as the season requires. Some systems use magnetic strips to attach the secondary glazing to the frame, others a Velcro-like material. I found a good video here<sup>8</sup> that isn't trying to sell you anything other than the idea, so well worth a look. Also the householder was doing it herself and showing you the process, which will make it much easier to do.

#### **CURTAINS**

**Close the curtains** - always close the curtains as soon as you can at the end of the day and leave them closed overnight. That way they can help hold the heat in the room.

**Let in the sun** - if you have windows that face south/west side make sure to open them during the day to make the most of the sun's warmth. Giving your windows a quick clean is another way to increase this.

#### WINDOWS

**Heavy curtains** - if you have the option of heavy, padded curtains, they will hold most heat inside the room.

You can create this effect if your curtains have an inner liner. Add a sheet of lightweight quilt wadding between the curtain and the lining and hold it in place with some tacking stitches. You could also hide a second pair of curtains sewn in between the layers or tacked onto the back of your existing ones, adding extra padding. Charity shops often have curtains that would work perfectly for this.

**Curtain wire** - draughts can still come down between the wall and the curtain. A curtain wire of can be attached to the wall on either side of the curtain near the bottom using eye hooks. As soon as you close the curtain, stretch the wire across so it holds the curtain tight to the wall, keeping the cold between the window and the curtain. Video here for how to put up a curtain wire. Just apply the same techniques lower down to provide a holding wire for your curtains. **NB** remember to buy wire hooks when you get your wire.

**Curtains and radiators** – traditionally radiators were placed underneath windows in order to warm up the cold air seeping through. However this also increases the chances of losing heat through the window to outside.

- If you have long curtains, **lift them up** above the radiator so they don't block the warmth and it can flow directly into the room.
- Put a **shelf above the radiator** that will hold the curtains (if they are long), blocking the heat from reaching the window and directing it from the radiator into the room. The shelf will also interrupt the upward flow of warm air and send it directly into the room.

- https://www.diy.com/departments/diall-white-self-adhesive-draught-seal-l-6m-w-9mm-t-5-5mm/1802906\_BQ.prd
- 2. https://www.youtube.com/watch?v=V6lZXjRR-1k&t=4s
- https://www.unibond.co.uk/en/sealants/mastic-sealant-the-all-purposeall-rounder.html
- 4. https://www.youtube.com/watch?v=RP4nQ51jKSw
- https://www.screwfix.com/p/no-nonsense-general-purpose-silicone-clear-310ml/35887
- 6. https://bit.ly/3BVMJBC
- 7. https://www.youtube.com/watch?v=fXlvuLnLo70
- 8. www.exhttps://www.youtube.com/watch?v=aEBbSkjkCikample.com
- 9. https://bit.ly/3fsv4J8
- 10. https://bit.ly/3C69tOq

# CHAPTER 5 RADIATORS

ny central heating system is only as efficient as its radiators, so it's vital to make sure they working well and delivering all their heat into your room. There are a few things you can do to improve the quality of heat from your radiators:

**Bleed the radiator** – air can get trapped in a radiator and prevent the hot water filling all the space. To make sure you're getting the best heat possible, you need to remove the air so the radiator can be totally filled with hot water. This is done with a radiator bleed key<sup>1</sup> that releases the air and makes it more efficient. Video to show you how to do this here<sup>2</sup>

**Use thermostats** – if you have thermostats on your radiators, use them to adjust the temperature in each room and switch them off in rooms you don't need to use or heat. If you don't have them, consider fixing them next summer when the system isn't being used. A rather detailed, but interesting, explanation here<sup>3</sup>.

**Insulating behind radiators** – if there is no barrier between the radiator and an uninsulated external wall, heat

will be lost through the wall to outside, reducing the amount that comes into the room. Use aluminium foil insulation<sup>4</sup> or foam foil insulation<sup>5</sup> and fit it behind any radiator that's on an outside wall. The material helps to reflect/bounce the heat back into the room and the insulation stops it being absorbed into the wall. Video on how to fit it here<sup>6</sup>.

**Turn down the temperature** – if you haven't done this already, you can try turning down the temperature by one degree. It won't make a huge difference to comfort but it will help with electricity bills. I understand that just one degree lower can save up to £128 per year. I saw this in Octopus energy saving tips here<sup>7</sup>

**Move furniture away** – make sure to move furniture away from the radiator, otherwise the fabric of your chair or settee will absorb the heat and stop it flowing into the room. Even just leaving a gap between your furniture and the radiator will make a difference.

<sup>1.</sup> https://www.screwfix.com/p/radiator-valve-key/16909

<sup>2.</sup> https://bit.ly/3fFxy7c

<sup>3.</sup> https://bit.ly/3fFxy7c

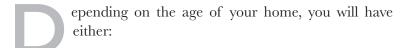
<sup>4.</sup> https://www.screwfix.com/p/radiator-reflector-foil-470mm-x-4m-1-88m/88629

https://www.ecohome-insulation.com/product/ecotec-radiator-insulationkit/

<sup>6.</sup> https://www.youtube.com/watch?v=48co8eLBUmg

<sup>7.</sup> https://octo.ps/3BBzF4M

## CHAPTER 6 FLOORS



- · a concrete floor
- a suspended wood floor.

**Insulating a concrete floor -** this will be well sealed from draughts but, because it's a very cold material, it will absorb warmth from the room. You can use a floor foam insulation kit<sup>1</sup>. This comes in a roll and can be laid underneath rugs, a carpet or vinyl. This isn't the cheapest option, but you can look at any underlay<sup>2</sup> or insulation material and put that down in the same way. You may also find excess underlay that needs rehoming on Freegle<sup>3</sup> or FB marketplace<sup>4</sup>

**Insulating a suspended wood floor** - wooden floors sit above a 'sub floor void' ie the gap between the floor and the ground that the building sits on. There are air bricks that allow air flow (you'll see them on the outside wall just above ground level), keeping the space well ventilated and dry, so you

must never cover those up. However you can block the draught from coming up through the floorboards. .

If you've moved into a home where all the surface flooring has been removed or you can lift carpeting or rugs temporarily, you can do any or all of the following:

- **Block gaps between floor and skirting board** expanding foam tape is a good option for this. Once in place it expands so there's no risk of air movement. It does take a bit of care to manage the expansion, so put 'fitting expanding foam tape<sup>5</sup>' into Youtube before you start. You'll pick up some useful hints eg: once you've cut your strip off, put some tape around the rest of the roll to hold it in place; otherwise it will all start to expand and become less useful in the future.
- **Seal up the gaps between the floorboards** this will cut out draughts and can be done with any sealing tape or masking tape. Fold the tape in half lengthways, sticky side out, and pushed down between the floorboards, so it springs out and fills the space.
- Lay down insulation floor foam insulation<sup>6</sup> can be laid on top of the floor and tucked into the wall edge. Take time to seal the strips of insulation together and seal up around the edge where the floor meets the wall. See Youtube for instruction/demonstration<sup>7</sup>. Lay your chosen floor covering on top. If laying vinyl, check out whether a layer of plywood is needed on top some sites I've read say it's needed, others don't mention it, so just find out before you start.

#### **FLOORS**

**Rubber backed carpet** – putting down a carpet with a rubber backing helps to reduce draughts and cold from underneath the floor. If you don't have the option of carpet, then putting down some form of insulation/underlay and rugs - ideally with a rubber back - will still make your room warmer and more comfortable to live in. Try Freegle<sup>8</sup> to see if you can give a home to some 'pre-loved' carpet or insulation.

**Sealing gaps between carpet and wall** – if you can't seal between the floorboards because of your floor covering, then that should be giving you some protection anyway. However you might still have draughts coming up where the carpet meets the wall. Filling up these gaps between wall and floor will reduce the cold.

Use any flexible materials you can find - broken up bits of wood fibre or mineral wool insulation (you may see this offered on Facebook renovation pages where people have small amounts to get rid of), shredded newspaper, cut up pieces of material (old T shirt would work well) - anything that can be stuffed down into a small space. Break the material up into small pieces and push it down where the floor covering meets the wall. Fill up the whole space until you stop feeling the cold draughts.

<sup>1.</sup> https://www.therma-foil.co.uk/product/therma-foil-25-sqm/

<sup>2.</sup> https://amzn.to/3dPWPeq

<sup>3.</sup> https://www.ilovefreegle.org

https://www.facebook.com/marketplace/114703158546342/search? query=floor%20insulation

 $<sup>5. \ \</sup> https://www.youtube.com/watch?v=V6lZXjRR-1k\&t=4s$ 

<sup>6.</sup> https://www.therma-foil.co.uk/product/therma-foil-25-sqm/

<sup>7.</sup> https://bit.ly/3dZsWs9

<sup>8.</sup> https://www.ilovefreegle.org

# CHAPTER 7 SAVING ENERGY IN THE KITCHEN

few options for saving energy in the kitchen:

- Keep the fridge door open for as short a time as possible cold air sinks, so when the door stays open, the cold air will 'fall' out of the door and the fridge will work harder, using more energy, as it cools down again.
- Check the temperature of your fridge keep the temperature of your fridge between 2.2C and 3.3C. If you can keep the fridge full, it will work more efficiently.
- **Check your freezer** this is most efficient between -17.8C and -15C.
- **Using the oven** don't start the oven ahead of time; wait until you're ready to use it. Plan ahead and fill the oven up, cooking as much as you can at one time. Batch cooking makes good use of the electricity and saves you cooking for the next few days. Turn it off five minutes early the residual heat will finish off

#### SAVING ENERGY IN THE KITCHEN

- the job. Then as it cools down open the door and let the heat come into the room.
- **Slow cooker** if you don't have the machine itself, try cushions. Bring to the soup, porridge, red lentils etc to the boil, (not meat or fish) then put in a box with old pillows or cushions underneath and all around to hold the heat in. Pack it in tight and leave overnight. I do this with porridge every evening works perfectly. Also great for yoghourt when we have spare milk.
- **Boiling the kettle** just put in a small amount of water. Every time you overfill, you waste energy heating it all up.
- **Use a steamer** cook potatoes in the saucepan in boiling water and put vegetables in the steamer above that. This way one pan can cook the whole meal. Use a collapsible metal steamer<sup>1</sup> or a bamboo Chinese steamer<sup>3</sup> and put a lid on the top. The latter has two or three layers, is not expensive and also biodegradable. How to use here<sup>4</sup>.
- **Saucepan lids** always put a lid on the saucepan when you're cooking. The food cooks more quickly because the heat is held in the saucepan.
- **Washing clothes -** always run full loads in your washing machine to reduce energy usage
- **Tumble dryer** don't use your dryer if you can avoid it or only use to 'finish off' drying. You can invest in a clothes dryer<sup>5</sup> an airing rack that has a cover and a small heater. Try to use your bathroom, especially if it has a humidity sensing air vent<sup>6</sup>, since that will help to dry clothes if they can't go outdoors. It will avoid creating excess moisture in the rest of the home.

- 1. https://bit.ly/3y9iDIP
- 2. My Book
- 3. https://bit.ly/3SFqqWX
- 4. https://thewoksoflife.com/how-to-use-bamboo-steamer/
- 5. https://bit.ly/3LRne7Y
- 6. https://bit.ly/3Lr7Q1S

# CHAPTER 8 OTHER ENERGY SAVING IDEAS

here are other ways to save energy in your home:

Cat flap – pets are so important, but they can also create problems. Cat flaps are holes in the door you can do without when it's really cold.

Think about your cat's routine and the times when they don't need access to the cat flap. At those times, you can:

- prop a cushion against it to reduce draughts
- find a piece of wood / board and attach some form
  of padding that will absorb and block the cold air.
  Find a way to lock it into position eg: a couple of
  bolts, a curtain wire (as described above to hold
  curtains tight against the window)
- make a flap like the one for the letterbox a piece of thick material that is larger than the cat flap and can be let down when the cat is inside the house. If the cat is outside, they would still be able to come in by pushing the material out of the way.
- if all else fails, block up the cat flap and pay attention to when the cat needs to go out.

#### Chimneys

This is a difficult one. Chimneys are huge holes coming into the house. Massive amounts of hot air rises up through the chimney (hot air rises and cold air sinks), and cold air drops down into the room. However, the chimney also provides all important ventilation that stops condensation and mould.

If your thermostat is in the room with the chimney, it will be affected by the cold that comes down the chimney. This is important because it will automatically fire up the radiators in other rooms to the same level of heat needed to combat the cold from the chimney. If this is your situation, you could turn down the temperature so the chimney room is less warm, but other rooms are right. Alternatively, set the thermostat to suit the room with the chimney and turn off radiators in the other rooms when you're not using them.

If you are able to block up the chimney it will make a big difference to the warmth of your home:

- **chimney balloon** made of plastic and inexpensive. You need to work out the size of your chimney and buy the one that fits<sup>1</sup>. Put it in place and blow it up with the pipes provided. The plastic balloon inflates inside the chimney and blocks draughts from coming down. Remove it from the chimney from time to time, allowing fresh air to flow, and avoiding condensation inside the chimney. Find out how to fit it here<sup>2</sup>
- **chimney sheep** a solid piece of sheep's wool that fits into the chimney space blocking off draughts. It's flexible so it will fill the space more efficiently and it lasts well. It's also easy to fit.<sup>3</sup> This is the simplest option as it allows for some air movement, which means moisture can evaporate from the chimney.

#### OTHER ENERGY SAVING IDEAS

- **loaded plastic bags** I have read about this as an option. No idea how effective or safe it is. You can read comments about it here. Generally, a strong bin bag is filled with paper or something like a pillow and pushed up the chimney making sure it fits tightly. Again, you need to take care to remove it periodically to allow a flow of fresh air and avoid condensation inside the chimney.
- **board covering** using wood or insulation board make a cover that fits into the opening of the fireplace and will close it off like a door. Put some small slots (air vent) into the wood to allow ventilation and avoid condensation inside the chimney, since this can lead to toxic mould growth over time

In the summer, remove any stuffing to allow the air to circulate.

# NB: IF YOU PUT ANY FORM OF BLOCK IN A CHIMNEY, REMEMBER TO REMOVE IT BEFORE LIGHTING THE FIRE.

**Loft hatch** – if you have a loft, hopefully it is already well insulated. If not, see below for grants that can help you get this done.

Make sure the loft hatch is close fitting and doesn't allow any draughts to come through. If it does feel cold use the same process as for windows and doors, inserting insulation tape to make a tight seal.

**Pipework** – look inside the kitchen sink cupboard to find out if there are gaps around the inlet pipes. If so, these can be stuffed with rags, wood fibre or mineral wool insulation, newspaper or old clothing.

For a more permanent solution use silicone mastic or foam filler (although make sure to find out more<sup>5</sup> about foam filler first, since it can be toxic)

If you can access the hot water pipes under the sink or anywhere else in the house make sure they are well covered. You can get silver foil material to wrap around pipes in the DIY stores.

**Light fittings** – as with the pipework, check whether cold air is coming in through the light socket. If so, filling the gaps in the same way will help.

**LED bulbs** - make sure your lights have LED bulbs that use much less energy. Either way - switch lights off when you don't need them.

**Hot water tank** – if your water tank doesn't have any insulation around it, heat will be lost<sup>6</sup>. It then takes more energy to keep it at the required temperature. Putting a jacket around it can make a big difference to running costs. See how to fit it here<sup>7</sup>.

**Switch off, don't standby** - we're so used to just leaving electrical items on standby for the convenience of a quick start up. But this still uses energy<sup>8</sup>. So get used to waiting a few seconds while the item gets going and you'll save some money.

**Take chargers out of sockets** - hard to understand but it seems that leaving charger plugs in sockets still uses up energy. So unplug when you've stopped using it. Go to this site and scroll down to the short video for info

**Ironing -** if you have to do it, don't get distracted. Anything that makes heat uses a lot of energy so keep the iron on for as short a time as possible. (Or use this as the perfect excuse to stop doing it altogether!)

#### OTHER ENERGY SAVING IDEAS

**Hairdryer** - same with the hairdryer. So let your hair dry naturally for an hour before using it.

**Install a smart meter** - this is provided by energy providers. They should tell you when you can have one, but you can also put in a request<sup>9</sup>. They help you track your energy usage and identify which items use most energy.

**Get smart plugs** - these are plugs with timers<sup>10</sup> that turn appliances off automatically after a period of time

**Get an electric blanket** - these can be very cheap to run and allow you to get warm in bed without having to heat a whole room. This article <sup>11</sup>has done the maths on how much they actually cost to run compared to heating.

1. https://www.chimneyballoon.co.uk

<sup>2.</sup> https://bit.ly/3SBKKZo

<sup>3.</sup> https://www.thegreenage.co.uk/better-chimney-sheep-chimney-balloon/

<sup>4.</sup> https://forums.moneysavingexpert.com/discussion/6170235/how-to-block-unused-fireplace-chimney

<sup>5.</sup> https://www.bobvila.com/articles/expanding-foam-insulation/

<sup>6.</sup> https://www.thegreenage.co.uk/insulating-hot-water-tank-jacket/

<sup>7.</sup> https://www.youtube.com/watch?v=nwVB1akhKyo

<sup>8.</sup> https://octo.ps/3BBzF4M

<sup>9.</sup> https://www.ofgem.gov.uk/information-consumers/energy-advice-house holds/getting-smart-meter

<sup>10.</sup> https://www.techadvisor.com/article/723860/best-smart-plug.html

<sup>11.</sup> https://www.idealhome.co.uk/property-advice/how-much-does-it-cost-torun-an-electric-blanket-296454

# CHAPTER 9 HOME IMPROVEMENT GRANTS & HOW TO APPLY

here are still grants you can apply for to help improve the energy efficiency of your home, which is great news. So go on your local council website<sup>1</sup> to see what they are offering and put in an application.

The aim is to reduce your spending on energy bills, whilst reducing carbon footprint and contributing to the climate goal of net zero.

The main options on offer are listed below. Criteria will vary from one council to another, but will probably focus around your income and your existing EPC (Energy Performance Certificate) which gives a rating from A to G to show how energy efficient your home is. A is extremely good, new homes are meant to be at B but maybe lower. Old houses can go as low as E or G.

You can find out about your EPC here<sup>2</sup>- all you need is your postcode. For some councils the requirement is an EPC below C, but do check what your local council is setting as a limit for help.

#### Help to heat project

The government is investing £12 billion in Help to Heat<sup>3</sup> schemes to make sure homes are warmer and cheaper to heat. This includes the:

- Boiler Upgrade Scheme
- Local Authority Delivery Scheme (Sustainable Warmth Competition)
- Home Upgrade Grant (Sustainable Warmth Competition)
- Social Housing Decarbonisation Fund
- Energy Company Obligation (ECO)

This funding is not delivered directly by the government, but through installers, local authorities, energy companies and other bodies.

The **Sustainable Warmth Competition** awards funding to local authorities to help them upgrade energy inefficient homes of low-income households in England. This includes:

- Local Authority Delivery Phase 3 (LAD3) scheme for low-income homes heated by mains gas
- Home Upgrade Grant Phase 1 (HUG1) scheme for low-income households off the gas grid

Different local authorities will deliver the funding in different ways - so you will need to check with your council if you're eligible.

Check if your council has received funding through this scheme.

The **Home Upgrade Grant (HUG)** will provide energy efficiency measures and low carbon heating to low income households living in the worst performing, off gas grid homes

in England to tackle fuel poverty and make progress towards net zero 2050.

#### Support through your energy company

The **Energy Company Obligation (ECO)**<sup>4</sup> is a requirement for energy suppliers to help households reduce the costs of their home heating by fitting energy-saving measures.

Different energy suppliers have different amounts of support and offer different types of improvements - so you will need to check with your energy company if you are eligible.

<u>Contact your council</u> to find out if they're taking part in the scheme, or contact an energy supplier directly.

#### INVOLVING YOUR LANDLORD

If you are a tenant and your home needs some draught proofing, you will need to work out how to approach your landlord. Some leases allow for you to make reversible changes yourself. In which case, when you buy or obtain materials for draught proofing and insulating, make sure they can be taken out without leaving irreparable damage.

If the changes you need are more significant:

- talk to the landlord about the action needed and the benefit it will bring
- find out if they are OK with you doing it or if they prefer to do it themselves
- let them know about the council grants that are available to help with insulation – they may be interested since it will improve the value of their property

#### HOME IMPROVEMENT GRANTS & HOW TO APPLY

The more information you can give them about what's involved, the cost, complexity of the work and benefits, the more chance you'll have of success.

1. https://www.gov.uk/find-local-council

<sup>2.</sup> https://find-energy-certificate.service.gov.uk/find-a-certificate/type-of-property

 $<sup>{\</sup>it 3. https://www.gov.uk/government/collections/find-energy-grants-for-you-home-help-to-heat}$ 

<sup>4.</sup> https://www.ofgem.gov.uk/information-consumers/energy-advice-house holds/find-schemes-grants-and-benefits-help-home-energy

# CHAPTER 10 FURTHER HELP AND INFORMATION



#### Help the Aged - Warm Homes

https://www.ageuk.org.uk/services/in-your-area/warm-homes/

#### Shelter - help with energy bills

https://england.shelter.org.uk/housing\_advice/benefits/help\_with\_gas\_and\_electric\_bills

#### Trussell Trust Food banks

 $https://www.trusselltrust.org/?https\%3A\%2F\%\\ 2Fwww_trusselltrust_org\%2Fcost-of-surviving-donate-gs\%2F$ 

32

#### FURTHER HELP AND INFORMATION

#### **Government Help for Households**

https://bit.ly/3gka9bu

#### **Energy grants**

https://bit.ly/3eEk0IR

Ofgen - help if you can't afford your energy bills

https://www.ofgem.gov.uk/information-consumers/energy-advice-households/getting-help-if-you-cant-afford-your-energy-bills

**Step Change** - charity that gives advice on energy debt

https://www.stepchange.org/debt-info/government-help-with-gas-electric-bills.aspx