Think Energy

HOME ENERGY SAVING KIT
WORKBOOK

FREE
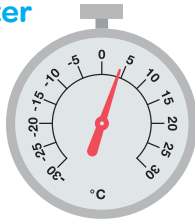to fill out
and keep

Codema
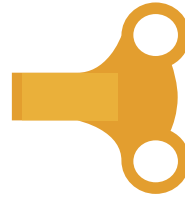Dublin's Energy Agency
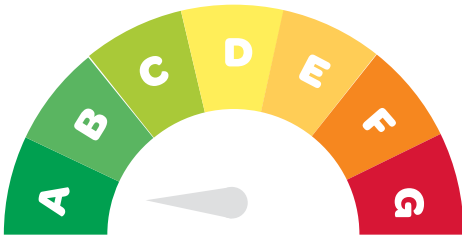
How to use this workbook

This workbook covers each of the five tools in the Home Energy Saving Kit, along with an additional exercise to measure your water flow rate.
You can choose to use them all, or focus on one or two, then fill in the tables on each page or work through your own checklist.
However you decide to use the kit, we hope it helps you understand how your home uses energy for heating, hot water and appliances.

Fridge Freezer Thermometer

Radiator Key

Temperature & Humidity Meter

THERMO   HYGROMETER

20℃ 48%

Thermal Leak Detector

REF 19.2
SCAN 15.8

Plug-In Energy Monitor

0.000
kWh

RESET
FUNCTION   COST   •   UP   DOWN

Water Flow Rates*

2L
1.5L
1L
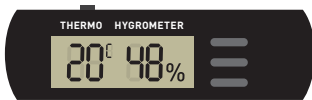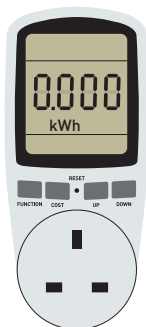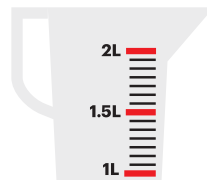
*You'll need your own measuring jug, bucket and timer to measure your water flow rate

Fridge Freezer Thermometer

The ideal temperature in your fridge is between 3°C and 5°C, and between -15°C and -18°C in your freezer. If they're not within these ranges at first, you may need to adjust the controls and use the thermometer to check again.

For full instructions, see page 04 of the manual
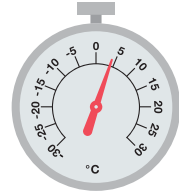
	READING ONE	READING TWO	READING THREE
Fridge 1			
Freezer 1			
Fridge 2			
Freezer 2			

Top Tips — First things to check, upgrade or repair

☐ **Check the seals** — clean or replace the door seals if needed

☐ **Defrost** — if you see frost build up, defrost the fridge freezer

☐ **Kitchen layout** — find a cooler, shadier spot for the fridge

☐ **Keep your freezer full** — use water bottles or other items

☐ **Replace and upgrade** — older appliances may be less efficient

☐ **Assess** — if you have a second fridge, see if you really need it

Radiator Key

Releasing any trapped air from radiators will make them heat your home more efficiently. Be sure to turn off your heating and allow it to cool down fully before using the radiator key.

For full instructions, see page 09 of the manual

ROOM	NUMBER OF RADIATORS	AIR RELEASED ✓	VALVE CLOSED ✓

Top Tips — First things to check, upgrade or repair

☐ **Boiler service** — full service and replacement filters every year

☐ **Intake valves** — check all are in working order

☐ **Furniture** — move away from radiators to let heat circulate

☐ **Radiator foil** — fit behind each rad to bounce heat back indoors

☐ **Curtains** — check these aren't diverting heat out the windows

☐ **Check for air** — if air is getting trapped regularly, call a plumber

Water Flow Rates

Heating water takes a lot of energy. To see if you're getting the best from your hot water system, one way is to see how quickly that water is used up. The ideal flow rate for showers and taps is around 9 litres per minute.

For full instructions, see page 20 of the manual

	TEN SECOND FLOW	X SIX	FLOW RATE
Shower 1	Litres	x 6 =	Litres/min
Shower 2			
Bathroom 1 Hot Tap			
Bathroom 1 Cold Tap			
Kitchen Hot Tap			
Kitchen Cold Tap			
Bathroom 2 Hot Tap			
Bathroom 2 Cold Tap			

Top Tips — First things to check, upgrade or repair

☐ **Check shower hoses** — these can loosen and start to drip

☐ **Shower heads** — check they're properly attached with no leaks

☐ **Dripping taps** — fix these right away, especially hot taps

☐ **Water pumps** — consider turning pumps off unless needed

☐ **Reduce flow** — try fitting flow restrictors to taps and showers

☐ **Aerating heads** — add air to taps and showers while reducing flow

Temperature and Humidity Meter

Use the temperature and humidity meter in different parts of each room, at different times, to check if they're too hot or cold, or too dry or damp. Then you can decide if you need to adjust your heating or ventilation — or both.
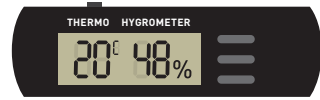
For full instructions, see page 07 of the manual

ROOM	TIME / AREA	TEMPERATURE °C	HUMIDITY %
Bathroom 1	*before shower*		
	after shower		
Bathroom 2	*before shower*		
	after shower		
Kitchen	*before cooking*		
	after cooking		
Utility	*before laundry*		
	while doing laundry		
Living Room	*centre of the room*		
	windowsill		
	behind shelves		
Bedroom 1	*centre of the room*		
	windowsill		
	wardrobe		
Bedroom 2	*centre of the room*		
	windowsill		
	wardrobe		
Bedroom 3	*centre of the room*		
	windowsill		
	wardrobe		

ROOM	TIME / AREA	TEMPERATURE °C	HUMIDITY %
Back hall	beside the back door	15.3°C	68%
		°C	%
		°C	%
		°C	%
		°C	%
		°C	%
		°C	%
		°C	%
		°C	%
		°C	%
		°C	%
		°C	%
		°C	%
		°C	%
		°C	%
		°C	%
		°C	%
		°C	%
		°C	%
		°C	%

Top Tips — First things to check, upgrade or repair

☐ **Wall vents** — are they open, clean and unblocked

☐ **Bathroom extractor fans** — working, clean, vented to outside

☐ **Kitchen extractor hoods** — vented to outside, clean filters

☐ **Maintenance** — make sure your boiler, etc. is serviced regularly

☐ **Radiators** — are they heating to the top, do the valves open

☐ **Doors and windows** — seals working, any draughts or leaks

Thermal Leak Detector

This compares the temperature of any surface to the first one it's pointed at. In this way, you can find cold spots or draughts, and hot spots where heat might be escaping.

For full instructions, see page 12 of the manual

ROOM	FIRST *REFERENCE* TEMP	EXTERNAL WALL	INTERNAL WALL	UNDER SKIRTING BOARDS	UNDER WINDOW SILL	AROUND WINDOW FRAME
Kitchen	°C	°C	°C	°C	°C	°C
Living Room	°C	°C	°C	°C	°C	°C
Bedroom 1	°C	°C	°C	°C	°C	°C
Bedroom 2	°C	°C	°C	°C	°C	°C
Bedroom 3	°C	°C	°C	°C	°C	°C
Bathroom 1	°C	°C	°C	°C	°C	°C
Bathroom 2	°C	°C	°C	°C	°C	°C
Hall	°C	°C	°C	°C	°C	°C
Stairs	°C	°C	°C	°C	°C	°C
Landing	°C	°C	°C	°C	°C	°C

ROOM	AREA	FIRST REFERENCE TEMPERATURE	TEMPERATURE
Front hall	around front door	18.3°C	16.4°C
		°C	°C
		°C	°C
		°C	°C
		°C	°C
		°C	°C
		°C	°C
		°C	°C
		°C	°C
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		°C	°C
		°C	°C
		°C	°C
		°C	°C

Top Tips — First things to check, upgrade or repair

☐ **Windows** — seal any draughts around frame and sills

☐ **Front & back doors** — seal any draughts or gaps

☐ **Internal doors** — add draught excluders or strips

☐ **Hot water pipes** — add tube insulation

☐ **Hot water cylinder** — add or upgrade your lagging jacket

☐ **Hot appliances** — turn off when not in use

Plug-in Energy Monitor

Use the plug-in energy monitor to measure which electrical appliances are using the most energy in your home, and which might be using up energy in standby mode.

For full instructions, see page 16 of the manual
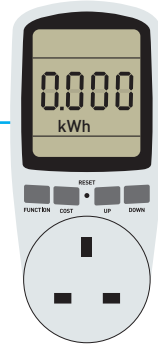
APPLIANCE	ENERGY PER USE	ENERGY USED IN ONE HOUR ON STANDBY IF APPLICABLE
Kettle (full)	kWh	kWh
Kettle (one cup)	kWh	kWh
Coffee maker (one cup)	kWh	kWh
TV (one hour)	kWh	kWh
TV tuner / box (one hour)	kWh	kWh
Wifi / modem (one hour)	kWh	kWh
Music player / amp (one hour)	kWh	kWh
Iron (one set of laundry)	kWh	kWh
Hair dryer (one blowdry)	kWh	kWh
Hair straightener (one style)	kWh	kWh
Sandwich toaster (one toastie)	kWh	kWh
Blender (one batch)	kWh	kWh
Slow Cooker (one meal)	kWh	kWh
Air Fryer (one meal)	kWh	kWh
Microwave (one meal)	kWh	kWh
Washing machine (one load)	kWh	kWh
Tumble dryer (one load)	kWh	kWh
Electric bike/scooter (full charge)	kWh	kWh
Tablet/phone (full charge)	kWh	kWh

APPLIANCE	ENERGY PER USE	ELECTRICITY UNIT RATE*	USES PER WEEK	COST PER WEEK		COST PER YEAR
Kettle (full)	0.157 kWh	x € 0.43	x 14	= €0.95	x 52 =	€49.40
	kWh	x €	x	= €	x 52 =	€
	kWh	x €	x	= €	x 52 =	€
	kWh	x €	x	= €	x 52 =	€
	kWh	x €	x	= €	x 52 =	€
	kWh	x €	x	= €	x 52 =	€
	kWh	x €	x	= €	x 52 =	€
	kWh	x €	x	= €	x 52 =	€
	kWh	x €	x	= €	x 52 =	€
	kWh	x €	x	= €	x 52 =	€
	kWh	x €	x	= €	x 52 =	€
	kWh	x €	x	= €	x 52 =	€
	kWh	x €	x	= €	x 52 =	€
	kWh	x €	x	= €	x 52 =	€
	kWh	x €	x	= €	x 52 =	€
	kWh	x €	x	= €	x 52 =	€
	kWh	x €	x	= €	x 52 =	€
	kWh	x €	x	= €	x 52 =	€
	kWh	x €	x	=€	x 52 =	€

Top Tips — First things to check, upgrade or repair

☐ **Standby** — start turning unused appliances off completely

☐ **Cooking** — preheat and cook quickly, then turn off

☐ **Kettle** — only boil as much as you need each time

☐ **Coffee machines** — turn off once you've made your coffee

☐ **TV tuners & Wifi** — turn off at night and when not being used

☐ **Hot appliances** — preheat for the minimum time only, then turn off

*Find this on your energy bill

Next Steps

Once you've used the Home Energy Saving Kit, there are lots of ways you can start saving energy — whether you own, rent or share your home.

Check out our 100 Energy Saving Tips
We've collected the best tips and tricks from energy experts to help you save energy in the way you run your home and manage your bills. Each Home Energy Saving Kit has a free copy for you to keep, or you can download it at:
codema.ie/energysavingkit

Switch and Save
Switching energy supplier each year can save you money on your energy bills. You can also choose to give your business to suppliers that are investing in renewable energy. Ireland's independent energy and water regulator, the Commission for Regulation of Utilities, has a handy guide to help you find the best supplier for you:
cru.ie/consumer-information/switch-supplier

SEAI Home Energy Grants
The Sustainable Energy Authority of Ireland (SEAI) offers a range of grants to help cover the costs of energy upgrades. These include attic, roof and wall insulation, heat pumps, heating controls, solar water heating and solar electricity. For more information call 01 808 2004 or visit:
seai.ie/grants/home-energy-grants

Sustainable Energy Communities
A Sustainable Energy Community (SEC) is a group of people who have come together to improve how energy is used in their community. Energy communities often look at projects in homes, transport and local businesses. Why not join your local SEC — or start your own?
For more information visit:
seai.ie/community-energy/sustainable-energy-communities