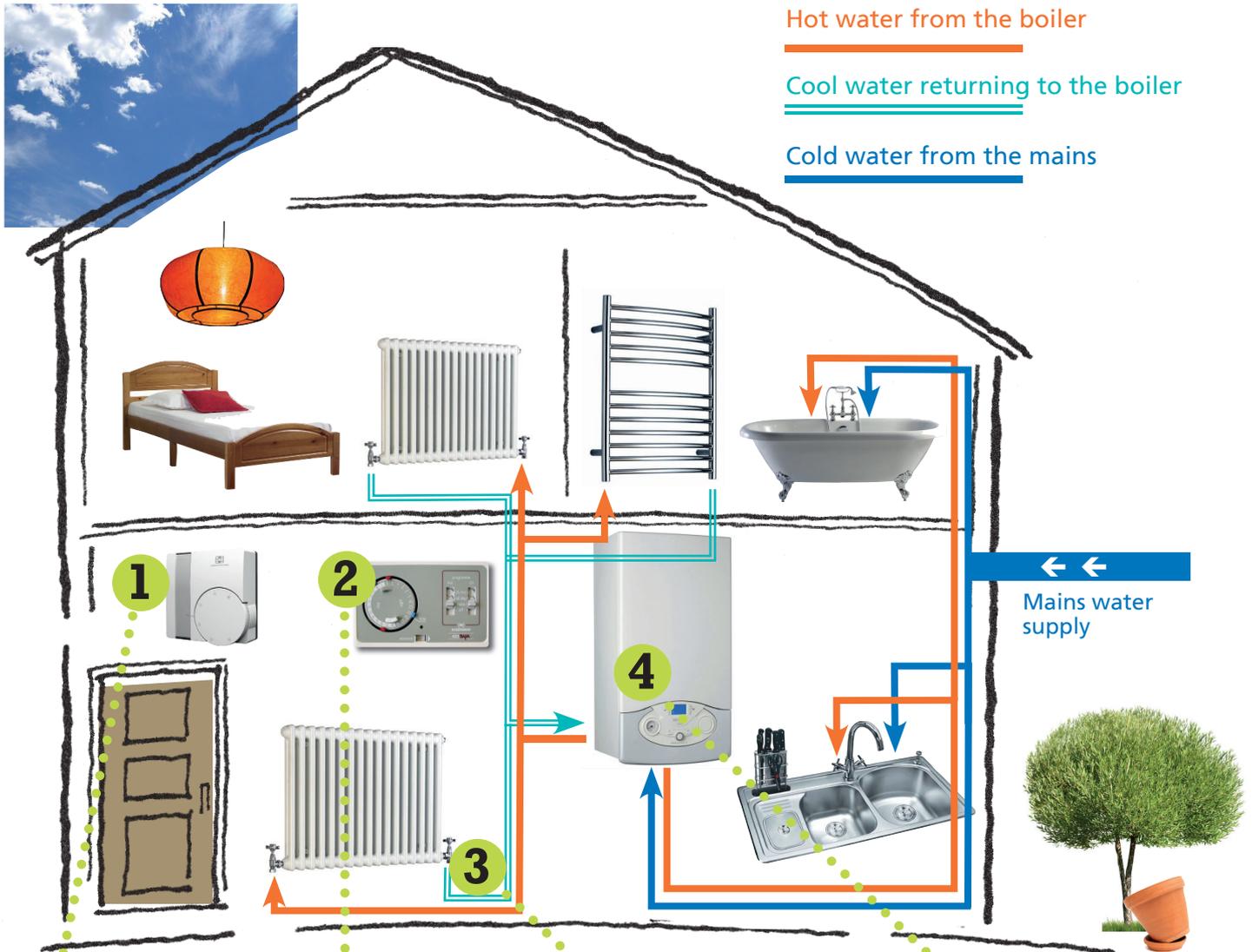




Getting the most from your gas central heating controls

With a mechanical timer and room thermostat

Cold water from the mains runs to the cold taps in the kitchen and bathroom, and also to the boiler where it is heated up. This **hot water** flows to the radiators and the hot taps in the bathroom and kitchen. **Cool water** flows back to the boiler from the radiators to be heated up again.



1 The room thermostat controls temperature in the home. It senses the air temperature and tells the boiler if heat is needed.



2 The timer (sometimes called a 'programmer') controls when the central heating goes on and off.



3 Thermostatic radiator valves control the heat in individual rooms.



4 The boiler controls regulate how hot the water in the radiators and hot water taps gets.

The recommended temperature for your home is **18-21°C**.

Your central heating needs to be set high enough to keep you warm in the rooms you are in most often (e.g. the living room) but not so high that you're wasting money.

This is normally around 18-21°C, which is a healthy temperature for adults who are reasonably active and mobile. Older people, or those with certain health problems, may need it a bit warmer.

If your home gets too cold, damp and mould can form with possible risks to your health. And homes that are too hot aren't good for your health either, and are particularly bad for babies and young children.

Setting your room thermostat



Room thermostats measure the temperature of the air around them, and tell the boiler to go on or off accordingly. So you can use your thermostat to set your heating to a temperature that suits you.

To find your **lowest comfortable temperature**, try turning the thermostat down by 1°C for a day. If you don't notice the difference, turn it down another degree the following day. If this feels too cold, turn it back up to what it was the day before.

The location of the room thermostat – usually the hall or living room – will affect the overall temperature in your home. Setting it a little lower will reduce your fuel bills.

The room thermostat will only work at times when the **timer** is set to allow the heating to come on.

You can use only the room thermostat, e.g. turning it up/down when you want the heating on/off. This offers easy control, but people often forget to turn the heating off when they go out, so it can work out more expensive. It's better to use your timer ...

Radiator valves



Radiator valves allow you to turn individual radiators up or down, which can save you money because it means your heating doesn't have to work so hard. Turn radiators to **low (1-2)** in rooms that you don't use much (to stop them getting damp or mouldy), and to **middling (3-4)** in main living areas. On very cold days, turn them all up a little.

Radiator valves do not directly signal to the boiler; they only control the temperature of the radiator they're fitted to.

Timer



The **programmer/timer** controls when the heating and/or hot water goes on and off.

You'll make best use of it, if it is set to fit your daily routine. Generally it is cheaper to heat twice a day (morning and evening) when you need it most, depending on your circumstances.

For more about setting a non-digital timer, see opposite.

If it gets replaced with a digital timer, it will do the same job and will have most of the same settings as a mechanical timer, but setting it up will be different. See our digital heating control factsheet for more information.

Boiler controls



If you look at your boiler, you'll see that it also has settings that you can change for central heating and hot water. Select **high-to-medium** in winter and **medium-to-low** in summer.

Setting the timer

Central heating timers that do not have a digital display are sometimes called 'mechanical timers'. They look something like this one:



On the left hand side of this timer is a dial with two red and two blue markers called 'tappets' that slide around the dial and look a bit like this:



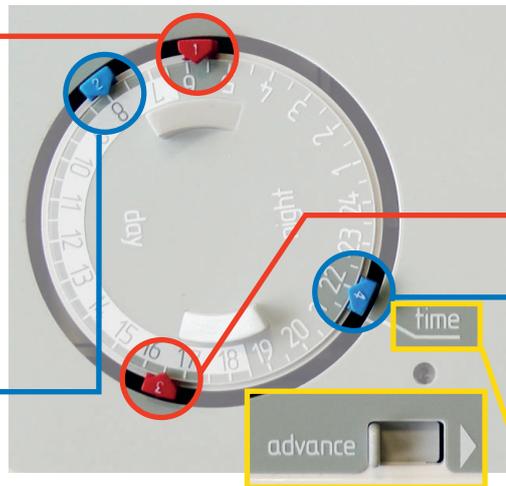
On this timer, the red tappets mark the time the heating comes on and the blue ones mark when it goes off. Often the tappets are numbered 1-4. They allow you to set two heating periods per day.

The dial turns clockwise, and goes round once every 24 hours, so '13' is 1pm, '14' is 2pm and so on. In this example the timer is set as follows:

MORNING

1 Comes **on** at 6am (first **red** tappet)

2 Goes **off** at 8am (first **blue** tappet)



AFTERNOON

Comes **on** at 4.30pm (16.30) (second **red** tappet)

Goes **off** at 10pm (22.00) (second **blue** tappet)

The '**advance**' slider moves the heating onto the next programmed change, so, on this example, if it's pressed at 7am, when the heating is on, it would turn the heating off. Alternatively, if it was between 8am and 4.30pm (16.30) when the heating is off, using '**advance**' would turn the heating on. It would stay on until the time reached the next blue tappet.

When you set up your timer, make sure this line is pointing to the correct time.

To the right of the clock face there are two switches. '**HW**' controls the hot water and '**CH**' is for the central heating.

If you select '**24 hrs**' your hot water and/or central heating will stay on all the time.

If you select '**all day**' your hot water and/or central heating will run from the time set by the **first red tappet** to the time set by the **second blue tappet** (in this example 6am to 10pm). Some timers call this '**once**'.

If you select '**twice**' your hot water and/or central heating will run twice a day, according to the times set by the red and blue tappets. In this case, 6am to 8am, and again from 4.30pm to 10pm. Some timers call this '**timed**'.

If you select '**off**' your hot water and/or central heating won't come on at all.

Some timers have a '**boost**' button which puts the heating on for 1 hour, so you can get a bit of extra heat if you need it after the heating has gone off.



Gas central heating tips

How can I reduce my gas costs AND stay warm in my home?

Heat **when** you need it.

It's all about timing. Set your programmer/timer so the heating turns on when you need it. Have it coming on half an hour before you get up, and going off about half an hour before you go to bed. A well-insulated home warms up faster and cools down slower - meaning you can set the heating to come on later and turn off sooner, saving energy and money. Experiment with the timer to see what works best for your home.

Turn the heating off when you are out. If you are away for more than a day, turn the heating off or put it to 'frost setting' (where the heating comes on for a short time each day to stop the pipes freezing).

Heat **where** you need it.

Remember to vary your radiator valve settings in different rooms. Have them set to a lower number in rooms you don't spend much time in. Using the timer, room thermostat and radiator valves can help reduce your gas bill by around £75 a year.*

Feel good

Find out the lowest room temperature that you feel comfortable at. Turn down your room thermostat a degree a week till you find a temperature comfortable for you. Possible savings are £80 a year.*

Lower your heating and hot water temperature in hot weather by adjusting your boiler's thermostat controls.

Know what you're using

Read your gas meter regularly so you know how much you are using. Or get in touch with your supplier and ask for a smart meter – they come with a handy in-home display which gives real-time information on your energy use. And smart meters will bill you for what you've actually used rather than an estimate, so you'll never pay for more than you've used or get into debt by not paying enough.



* Based on 2-bedroom mid-terrace home with average fuel use

Photos: dog, igor11; flame, Gordian Poropat



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The Centre for Sustainable Energy is a national charity that helps people change the way they think and act on energy.

Our Home Energy Team offers free advice on domestic energy use to people in Bristol, Somerset, Wiltshire, South Gloucestershire and Dorset.



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