

### Opportunity 5: Heating Audit

1. Carry out a heating audit of every room in your school using the template below. For each room try to conduct the audit with the people who use that room the most to highlight any issues and record it with them on the template.

2. Check with the site manager/caretaker/business manager that the heating times match with the opening hours of the school so that it isn't being heated when unoccupied. This can usually be seen by viewing your consumption graphs on MYWME, enabling you to spot when the heating kicks in and the impacts that this has.

Recommended temperatures for different parts of the school are listed below:

Area	Recommended temperature in °C
Classrooms and dining areas	18
Multi-purpose halls	15-18
Gyms and sports halls	15
Medical rooms	21
Offices and staff rooms	18
Corridors and toilets	15

- Reducing heating times by 1 hour per day can reduce heating costs by 10%  
e.g. half an hour in the morning and half an hour in the afternoon
- Reducing the heating temperature by 1°C can save 10% on heating costs

3. Ensure that radiator valves (TVR's) are operating so that radiators can be turned down if the room is too hot rather than opening windows and allowing the heat to escape. Open doors onto indoor corridors in addition to turning down TVR's if necessary as another method of reducing the temperature rather than opening windows.

4. Encourage everyone to adhere to these temperature guidelines and not turn the thermostat up if they're cold. Encourage them to wear more clothes instead.

5. Provide thermometers for each room so you know what the temperature is.

6. Bring children into the classroom through internal doors rather than external doors that lead directly into the classroom

7. Ensure that exterior doors are not left open if the heating is on.

8. Do not place heat emitting items such as photocopiers under thermostats as this will create a false reading and the heating will not come on when needed.

9. Do not block radiators with furniture as this prevents the heat from being distributed effectively and can cause the heating system to operate more than is necessary.

10. Can the heating be controlled in the room? If not report it to the site manager to investigate.

### Effective control of Electrical Heating

Whilst the majority of schools are heated using fossil fuels such as gas or oil, many are electrically heated, either in part or entirely.

Typically, electricity costs are around three times as much as natural gas (on a p/ kWh basis) and so the effective control of any electric heating is essential if excessive operating costs are to be avoided. Similarly, the carbon emissions (kgCO<sub>2</sub>/ kWh), are much higher for electricity than for gas, but are decreasing with the increased use of renewable technologies such as solar PV.

The use of additional electric heaters in buildings that are already served by a central heating system is often symptomatic of wider problems with the heating system. Portable electrical heaters can upset central heating system controls and make the problem worse. Try to identify and fix the root cause of the problem rather than resorting to the use of portable electric heaters.

The good news is that even quite simple heating control adjustments can deliver significant cost and carbon savings.

Catalogue your electric heaters and their types by using the template provided on page 3. Direct electric heaters deliver heat as and when they are switched on.

Because direct electric heaters use full price “day rate” electricity, energy costs can be high unless the heaters are closely controlled.

### Night Storage Heaters

Contain ceramic bricks which are heated up overnight using relatively cheap, off-peak electricity. The heat is then gradually released into the room during the following day. A standard electric night storage heater has two controls, an “input” setting (which regulates the overnight charge) and an “output” setting (which regulates the rate of heat release during the day). It's especially important to retain the heat in the room as once it is lost it cannot be replaced until the following day.

It's worth checking the settings of night storage heaters to ensure they match requirements and especially if they have 7-day timers to ensure the heating isn't coming on over weekends and holidays unless it's to protect against frost.





Room Number / Name	Question	Answer
	What type of heating does the room have? (Gas / Oil / LPG / Electric?)	
	How many radiators?	
	Is there a thermostat?	
	Does it work?	
	What temperature is it set at?	
	Is a heat source placed below the thermostat such as a computer or laptop charging trolley? If so, remove this source, as it will affect the function of the thermostat.	
	Are there valves on the radiators for controlling the temperature?	
	Do the valves work? If not, inform site manager	
	Are windows single, double or triple glazed?	
	Have windows got condensation? If so, inform site manager	
	Can the windows be opened for ventilation? If not, how is room ventilated?	
	Is furniture in front of the radiators blocking heat?	
	Do you exit the room via an internal door or an external door?	
	If an external door, is this self-closing?	
	Is the room too hot or too cold? If so, at what times of the day?	
Note that during the pandemic government advice has been to open windows to increase ventilation and this guidance should be followed, despite it making heating inefficient.		

Did you know – As well as gas and electricity, WME has Frameworks covering both Heating oil and LPG?

For more information on these Frameworks, to get a quote, or place an order, visit our website:

Oil: [Oil Services - West Mercia Energy](#)

LPG: [Liquid Petroleum Gas \(LPG\) - West Mercia Energy](#)