

# Ventilation and heating in school premises – another control measure against the Coronavirus

## Schools' Safety, Health and Wellbeing – Autumn Term 2021

This guidance is replicated from the version published in October 2020, at the height of the pandemic. Whilst the Government works on issuing schools CO2 monitors to gauge air flow and quality, we still need to ensure that our buildings are well ventilated. By doing this, we will be adding to the control measures against the spread of COVID-19, as far as reasonably practicable.

The balance between allowing free flow of natural air and the need for thermal comfort appears difficult during the colder months. However, we are still in the position of having to ventilate schools to attempt to keep the virus at bay. Important points to note are:

- Windows should be opened where safe, and “wherever possible”. All associated risks must be taken into account, such as restrictors, etc.
- Increased ventilation is one of several recommendations to reduce the risk of SARS-CoV-2 transmission indoors and therefore should be used in conjunction with other government advice including good hygiene practices, workplace cleaning, regular testing and currently, a vaccination programme.
- Ventilation is a very important way of diluting any airborne pathogens and there is good evidence showing that room occupants are more at risk of catching an illness in a poorly ventilated room than in a well-ventilated room. This is because in a poorly ventilated room occupants are exposed to a higher concentration of airborne pathogens, and the risk will increase with a greater amount of time spent in such an environment.

**If you are concerned that your heaters are not Covid-19 safe to use because they re-circulate the air in the room, please contact your Property Account Manager (Property Advisor), or the company who maintains and services them. This is not something which can be determined remotely by your Safety, Health and Wellbeing Advisor.**

During cooler weather, it will be necessary to balance the benefits of increased ventilation rates against the need to maintain the thermal comfort of the people in the room. You will need to be a little creative to find thermal comfort and to ventilate successfully. Below are some examples as to how you can approach this during the autumnal and wintry weather:

- Fully open windows before classrooms are occupied and during breaks but keep them only partially open during lessons
- Fully opening some windows to gain air changes but selecting those that are not directly next to both staff and pupil's desks / work areas
- Make sure everyone is dressing appropriately for the cooler weather –
  - some schools have allowed 'home clothes' instead of uniform so that layers are easier to wear
  - encourage the use of long sleeves, thick tights and jumpers
  - allow pupils to wear their coats in the classroom if appropriate
- If needed, external fire doors (final exit doors) can be opened – remember to secure them open and keep an eye on the hinge area
- Remember that any screen or partitions you have in rooms will alter air flow.

DfE ventilation information was released in 2020 as part of an update to the 'Guidance for full opening: Schools' document. This document is superseded by 'Actions for Schools during the coronavirus outbreak' and should be read in conjunction with the 'Schools COVID-19 Operational Guidance'. A precis of the DfE guidance is as follows:

**“... it is important to ensure it is well ventilated and a comfortable teaching environment is maintained. This can be achieved by a variety of measures including:**

- *mechanical ventilation systems – these should be adjusted to increase the ventilation rate wherever possible, and checked to confirm that normal operation meets current guidance*
- *natural ventilation – opening windows (in cooler weather windows should be opened just enough to provide constant background ventilation, and opened more fully during breaks to purge the air in the space). Opening internal doors can also assist with creating a throughput of air*
- *natural ventilation – if necessary external opening doors may also be used*

**To balance the need for increased ventilation while maintaining a comfortable temperature, the following measures should also be used as appropriate:**

- *opening high level windows in preference to low level to reduce draughts*
- *increasing the ventilation while spaces are unoccupied (e.g. between classes, during break and lunch, when a room is unused)*
- *providing flexibility to allow additional, suitable indoor clothing.*
- *rearranging furniture where possible to avoid direct drafts*

**Heating should be used as necessary to ensure comfort levels are maintained particularly in occupied spaces.”**

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You may find it useful to have a wall thermometer in each populated area, and take temperature readings three times per day – beginning, middle and end of the school day. It may take a couple of weeks to get to grips with how efficiently the ventilation and heating is working in conjunction with each other, but those initial readings may give you an idea of ventilation patterns.

**The information has been précised from the following sources:**

- 1) HSE – air conditioning and ventilation <https://www.hse.gov.uk/coronavirus/equipment-and-machinery>
- 2) CIBSE COVID-19 Ventilation Guidance V4 - 23 October 2020 <https://www.cibse.org/coronavirus-covid-19/emerging-from-lockdown> useful information about natural and mechanical ventilation systems and changes to consider and as we head into winter
- 2) Cambridge County Council and Essex County Council advice to staff (shared by RESOG members)
- 3) RoSPA members’ article “The Science of Viral Airborne Particles”
- 4) Times Educational Supplement article “Coronavirus: How to ventilate your classroom properly” – article by Dr Chris Iddon of the CIBSE: <https://www.tes.com/news/coronavirus-how-ventilate-your-classroom-properly>
- 5) Suffolk Public Health advice
- 6) DfE Guidance – updated 21 October 2020 <https://www.gov.uk/government/publications/actions-for-schools-during-the-coronavirus-outbreak/guidance-for-full-opening-schools> this is based on the CIBSE guidance above.