

Ventilation audit

Fact sheet

Ventilation research and audit

The NSW Department of Education continues to work closely with NSW Health to monitor and respond to the changing demands of the COVID-19 pandemic.

The department's ventilation and asset use recommendations are informed by:

- NSW Health advice
- Independent expert advice from Steensen Varming
- Research from the Doherty Institute
- Guidelines from the World Health Organisation



NSW Health advice, along with independent expert advice from Steensen Varming and World Health Organisation guidance, tells us that maximising natural ventilation in our learning spaces, is the most effective method for minimising the spread of COVID-19 as it is a very effective way to disperse particles in the air. This can be best achieved by opening doors and windows.

How do we know schools have enough ventilation?

The World Health Organisation have recommended 10 litres per person per second as a safe level of fresh air in classrooms.

We operate schools with a variety of ventilation systems, from entirely naturally ventilated to fully sealed supported by Heating, Ventilation and Air Conditioning or Evaporative Cooling systems to suit their local environment. The underpinnings of all of these systems are the fresh air requirements specified in the National Construction Code, and Australian Standards. When operating properly this specification allow us to meet, or exceed the World Health Organisation recommendations.

The department understands air quality is a key factor in the comfort of a learning space, however ventilation is only one part of the return to school plan. There is a comprehensive range of measures in place, including:

 vaccinations	 use of masks	 how teaching might be conducted in smaller groups	 maintain 1 person per 4 square metres
 outdoor teaching	 additional hygiene supplies	 continuation of enhanced cleaning	 servicing and cleaning of air conditioning systems

The Doherty Institute has reinforced this layered approach to ensuring schools are safe, and that vaccinations, masks and not mixing student cohorts as primary interventions.

We will continue to work closely with NSW Health to monitor and respond to the changing demands of the COVID-19 pandemic to ensure the health and safety of our school communities.

What does the advice and research tell us?

- Maximise natural ventilation
- Opening windows and doors is effective
- Ventilation is one part of a range of effective measures which also includes masks and vaccinations



Air ventilation assessments completed across every public school in NSW

The Department of Education has reviewed all windows, fans and ventilation systems in more than 150,000 spaces across more than 2200 public schools, including department preschools, in NSW to ensure they operate as intended.

This review has provided the department with significant information to inform ventilation and asset use recommendations, and provide schools with localised advice for COVID-safe teaching and learning relative to their individual facilities. The comprehensive nature of the audit that has been undertaken is unprecedented in an asset portfolio of this size.

Rectification works are underway including adjusting window frames that are painted or screwed shut, and ensuring windows above ground floor level that are fitted with restrictors are modified to allow them to safely open. All rectification works have been scoped to allow windows to be fully opened whilst ensuring a safe environment across all public schools in NSW. We are working with schools to prioritise areas in need of rectification.

We are confident that the vast majority of spaces in schools can be adequately ventilated through natural and mechanically assisted ventilation.

We will work with schools to help them understand their spaces and how to manage them in COVID-safe ways.

There will be spaces where 1 person per 4 square metres will be applied to ensure fresh air volumes are suitable for the safe use of the space. Indoor spaces in individual schools have been categorised in the table below;

Category	Description
A	Operate this space in line with COVID-safe school operations . It has the required level of natural ventilation. NB. Circulation and storage areas should not be used for groups or gatherings.
B	This space should be occupied at 1 person per 4 square metres to comply with COVID-safe school operations and the guided use of spaces . The report details the number of people who can be accommodated safely in each of the identified spaces.

We will continue to provide support to schools to adapt lessons and make full use of all school facilities, including outdoor learning areas.

There will be times where maximising natural ventilation may not be a suitable option to implement in teaching spaces, for example due to bushfire smoke or poor air quality. We are purchasing a stock of air purifiers to address these issues as they arise to ensure we can mobilise support and improve air quality in teaching spaces impacted by local conditions.

Localised plans will be issued to schools outlining results of the audit and what it means for the use of their individual facilities.

Support and guidance will continue to be provided to principals to support ventilation, personal hygiene, use of indoor and outdoor learning areas and school activities to ensure schools can operate in a COVID-safe way throughout the term.



How the audit prepares us for the return of face to face teaching:

- Comprehensive asset review completed
- 150,000 spaces audited
- The majority of spaces in schools can be adequately ventilated through natural and mechanically assisted ventilation
- Indoor spaces in individual schools have been categorised