



The following are simple recommendations that schools and childcare facilities can follow to reduce the risk of airborne pathogen transmission, including COVID-19. These recommendations focus largely on building modifications and are based on guidance from the CDC and other trusted sources. Note that the recommendations only **reduce** the risk of transmission but do not **eliminate** it. They are not intended to encourage or discourage school opening, but to provide information on how to more safely operate under current circumstances.



Ensure the most important recommendations are in place!

Face masks are **the most effective** means of reducing transmission risk. Students and staff should always wear masks and be taught to wear them correctly. Post signs in visible locations to promote proper mask wearing, and have extra masks available if possible.



Use signs to encourage hand washing. Ensure that there are adequate supplies (hand sanitizer, tissues, etc.) to promote hygiene.



Encourage students and teachers to stay home if not feeling well and remove any barriers to taking sick days.



Clean and disinfect frequently touched surfaces at least daily and as much as possible. Limit use of shared objects.



Form student cohorts to limit outbreaks and make contact tracing easier.

Social distancing

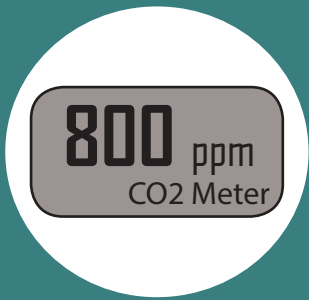
Set up seating and lines so that students are 6 ft apart (3 feet for elementary students). Tape off or place signs on tables and floors to guide students and maintain distancing. Post signs that discourage congregating. Recognize that indoor activities are inherently riskier than outdoor activities.



Increase outside air

Fresh outdoor air dilutes and helps to remove particulates. Can be supplied by air handling systems, unit ventilators, or operable windows

System	Recommendation
Central BAS System, DCV	Decrease setpoint from 1200 ppm to 800 ppm
Fixed Minimum Outside Air	Increase minimum outside air to the max. level that does not exceed system's ability to maintain comfort temps.
Unit ventilators in classrooms	Check outside air damper operation. See if minimum position can be increased
No ventilation system	Use operable windows and fans blowing outward



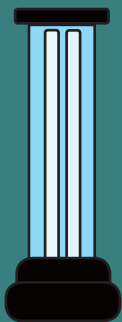
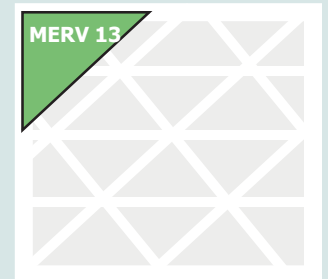
Verify adequate fresh air with CO2 sensors

CO2 target: 800 ppm (40 cfm airflow/person)

Obtain a quality CO2 monitor and check that spaces are well ventilated during occupancy. When sampling air, ensure reading is away from occupants to obtain diffuse reading

Increase filtration to minimum MERV 13

MERV 13 filtration in central air handling systems can capture up to 90% of virus-laden particles in the airflow. MERV 13 filters can be purchased with similar pressure drops to existing MERV 8 or MERV 11 filters most common in commercial fan systems, and for similar cost. Ask your HVAC provider for options.



Extra precaution: Air cleaning

UV Germicidal Irradiation (UVGI) is a proven air cleaning technology that can be added to central air systems to purify the airstream and clean filters and coils. UVGI can also be used to disinfect surfaces, and generally has a higher effectiveness than spray-and-wipe disinfectants. Upper room UVGI, where specialized lamps are installed high on walls, is an alternative to central-air UVGI, but generally is more expensive to install.

Resources



SEDAC COVID-19 Resources

Fact sheets, webinar recordings, Q&As, checklists and more, focused on building safety



Shield K-12 Playbook

University of Illinois toolkit that provides a questionnaire and checklists to reduce virus transmission risk

Other helpful websites:

- [CDC Covid-19 Guidance for Schools](#)
- [IDPH School Guidance](#)
- [Illinois State Board of Education Guidance](#)

Need help?

Schools needing extra assistance to make their facilities safe can contact SEDAC at info@sedac.org or **800-214-7954** to speak with one of our engineers. SEDAC is an applied research and training center at the University of Illinois with a mission to reduce the energy footprint of Illinois.

This fact sheet is produced by SEDAC in collaboration with the University of Illinois Extension.

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