



Chemical Insights
An Institute of Underwriters Laboratories Inc.

Keeping Schools Healthy

STRATEGIES FOR GOOD AIR QUALITY

OVERVIEW: IAQ IN SCHOOLS

20% of the U.S. population, or nearly 55 million people, spend their days in our elementary and secondary schools. Yet one-half of our nation's schools have problems linked to indoor air quality (IAQ). Poor IAQ is linked to higher absenteeism, increased respiratory ailments, lower test scores, and a variety of illnesses. Improving IAQ, particularly through ventilation can reduce absences, reduce the transmission of infectious diseases and improve overall the health of students and staff. Fortunately, there are four practical, effective ways to improve IAQ: ventilation and filtration (including air cleaning), moisture control, cleaning and disinfecting, and source control. It is important to note that no one strategy can ensure healthy air quality — the best approaches combine all four.

VENTILATION & FILTRATION



A properly working HVAC system dilutes pollutants and transports them outside. Incorporate at least 15-20% outdoor air at all times.



Filter outdoor and return air with the highest MERV (minimum efficiency value) filter possible — MERV 13 and above.



Distribute air through ducted supply and return vents (verses plenum spaces) to minimize contamination.



Maintain operational strategies that keep the system running when in use and, at a minimum, two hours before and after occupancy.

MOISTURE CONTROL



40% - 60%

Maintain indoor humidity levels between 40 and 60%.



Use dehumidifiers in humid areas to reduce potential mold growth.



Repair all chronic water leaks or entry points to prevent water intrusion and damage.



Dry wet materials quickly. Remove any chronically wet materials.

CLEANING & DISINFECTING



Clean floors, textiles, and furniture with a vacuum with HEPA (high-efficiency particulate absorbing) filtration.



Focus cleaning on high-touch surfaces, such as door handle. Do not use cleansers that introduce more pollutants into the space.



Wash hands frequently with soap and water to avoid hand-to-mouth transfer of pollutants.



Implement routine cleaning programs to avoid build-up of dust, allergens and films. Account for any specific risks, such as 3D printers.

SOURCE CONTROL



Buy certified or verified low-emission products. Air products out before use.



Procure safer classroom supplies, such as low-VOC markers. Consider natural woods and textiles instead of synthetic.



Get regular, professional maintenance of any combustion appliances, such as furnaces and water heaters.



Use products as recommended and follow instructions for safe product reuse or disposal.

SCIENCE FOR A SAFER, HEALTHIER TOMORROW.

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