Indoor Air Quality

Affects Students, Teachers and Trust in Our Schools

Indoor Air Quality (IAQ) refers to air quality within and around buildings and its effects on the health and comfort of people inside those structures. **Good IAQ** enables healthy learning environments where students, teachers, and staff are more productive. **Poor IAQ** can increase the spread of illness, reduce participation in class and school functions, and negatively impact an institution's reputation and the community's trust.[1,6]

Indoor Air Quality's already prominent place among educators has surged as school officials, parents, and communities seek better solutions to prevent airborne illnesses.[1,4]

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INDOOR AIR QUALITY ESSENTIALS

- EPA studies show that human exposure to indoor air pollutants may be two-to five-times – and occasionally more than 100 times – higher than outdoor levels.[3,4]
- Reports indicate organizations are still spending millions of dollars on surface disinfection, despite evidence that COVID-19 is rarely transmitted via contaminated surfaces. Few countries, however, have invested in major efforts to improve IAQ.[2]
- IAQ can be affected by numerous contaminants found inside a building or drawn in from the outdoors; pollution includes particulates, fibers, mists, gases, mold, chemicals, carbon dioxide and other emissions, cleaning and maintenance materials, and more.[3]

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to indoor air pollutants may be
2-5x, and occasionally
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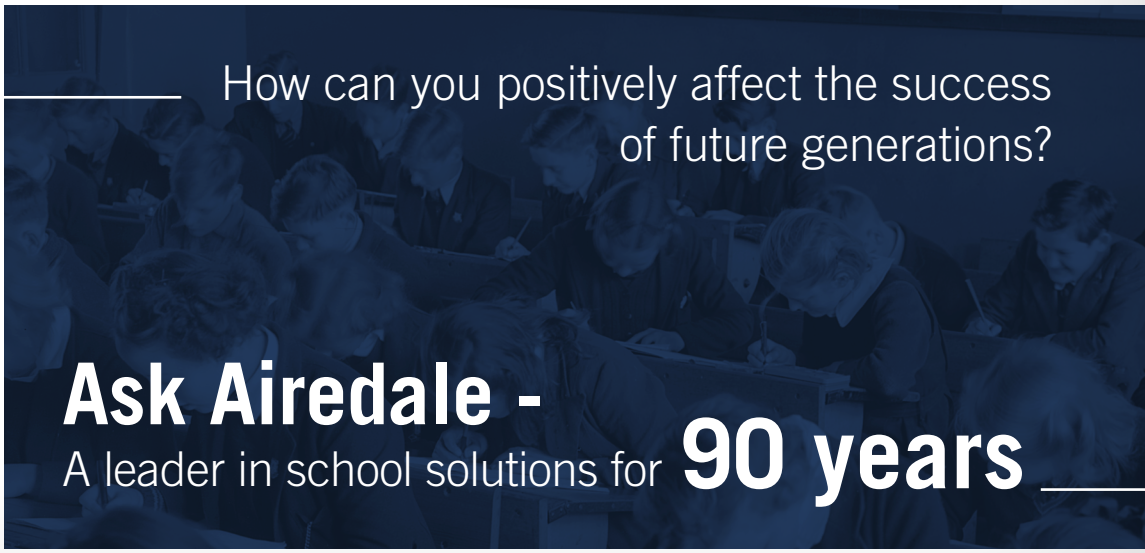
outdoor levels.

Good IAQ
has been shown to
improve student test scores
and **attention rates.**

Children may be
more susceptible to air pollutants,
more vulnerable to **environmental hazards**
because their bodies are **still developing.**[6,7]

Indoor Air Quality also can be affected by school building and room occupancy rates, traffic flows, seasonality, location, as well as building age and design.[4,5]

- **The rate at which outdoor air replaces indoor air is described as the air exchange rate.** When there is little natural infiltration (fresh air through windows and doors) or mechanical ventilation to improve air quality, that rate is low and pollution levels can increase.[1,3,4]
- Good IAQ, through adequate ventilation in schools and classrooms, has been **shown to reduce absences and transmission of infections diseases**; improve teacher and staff health and productivity; and improve student test scores and attention rates.[3,4,6]
- HVAC air circulation installations should provide all rooms with both air exhaust and fresh air supply and should be run at maximum outside airflow settings for at least two hours before and two hours after school buildings are occupied to achieve adequate air quality.[7]



Airedale by Modine's ViewPoint

Airedale wants every student to do their best everyday – to live, laugh, and learn in comfortable, clean, healthy environments. Air quality is central to that opportunity in our schools – now more than ever.

We understand this and is equipped to respond to your air quality challenges. We recognize you want the healthiest learning environment, the safest educational institution, and the highest-performing school community. We will help you gain the maximum benefit that improved air quality and control systems can play in achieving those outcomes.

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From single classrooms to campus environments, Airedale by Modine delivers smart, flexible solutions. Working in schools for over 90 years, Airedale by Modine is a trusted leader for Heat, Ventilation and Air Conditioning (HVAC) systems in educational institutions. Airedale by Modine's legacy is your leverage. Airedale's innovations, ideas and ingenuity will resolve your school air system quality control and ventilation challenges today – and tomorrow.

Airedale by Modine – a leader in school solutions for 90 years.

For additional resources, visit **https://modinehvac.com**

Sources

1 U.S. Environmental Protection Agency. "Why Indoor Air Quality is Important to Schools." EPA
2 "COVID-19 rarely spreads through surfaces. So why are we still deep cleaning?" Nature
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5 American Society of Heating, Refrigerating and Air-Conditioning Engineers. "Reopening of Schools and Universities."
6 U.S. Environmental Protection Agency. "How Does Indoor Air Quality Impact Student Health and Academic Performance?"
7 U.S. Centers for Disease Control and Prevention. "Ventilation in Schools and Childcare Programs."

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