

# Return to school: the importance of air quality in classrooms



## Back to School:

the importance of Air Quality in classrooms



As the **new school year** begins, parents and teachers are preparing to provide students with everything they need to learn best, from school materials to planning daily activities. However, there is one aspect that is often overlooked but fundamental to ensuring a productive year: the **quality of air in classrooms**.

## Clean air reduces respiratory problems and days of absence

Air quality in classrooms is critical to the health and well-being of students. **Diseases** such as COVID-19, influenza, asthma and other respiratory conditions spread easily in **environments** with **poor ventilation** or **high levels of pollution**, causing absences that can compromise academic performance. Constantly **monitoring ventilation, CO2 concentrations, allergens** and **particulate matter** is of utmost importance to ensure a healthy environment for students and those who frequent school spaces. This allows immediate interventions to improve the air quality in the environment, reduce the presence of pathogens and prevent respiratory problems, thus ensuring greater school continuity and better academic results.

## Improved mental health

Not only physical health, but also **mental health** can be **affected by air quality**. Exposure to air pollutants has been linked to a number of psychological disorders, including anxiety, depression and irritability. **Monitoring** and improving **air quality** in schools can reduce the incidence of these problems, creating an environment more conducive to students' learning and psychological well-being.

## Increased concentration and productivity

A school environment with **poor ventilation** and **high levels** of **carbon dioxide** can **impair** students' **ability to concentrate**. Air quality monitoring can quickly detect these conditions, allowing immediate interventions such as increasing ventilation and opening windows or scheduling interventions, such as changing classrooms for different subjects with ventilation of the spaces. Studies have shown that **improving** classroom **air quality** can lead to significant **increases** in **performance on tests** and school activities, with students performing better due to increased concentration.

## Enhancement of cognitive abilities

**Exposure to poor quality air** not only affects short-term performance, but can also have **lasting effects** on students' cognitive abilities. Children exposed to high levels of air pollutants during brain development are at risk of having a **lower intelligence quotient** (IQ) than their peers. Constantly monitoring air quality in schools and homes with appropriate sensors can help prevent these long-term effects, ensuring optimal cognitive development.

## Conclusion: air quality monitoring for a healthy school environment

Air quality in schools is a key element for student learning and well-being. **Real-time air quality monitoring** enables intervention when necessary to prevent the occurrence of unhealthy conditions in school spaces. Thanks to continuous measures, schools can guarantee safe and healthy spaces, reducing health risks and enhancing students' cognitive abilities. Investing in air quality is investing in the future of new generations, guaranteeing them the best conditions to learn and grow.