

# A Case Study: Seattle Public Schools



dioxide (CO<sub>2</sub>) in a larger sampling of occupied spaces in all schools, after the fall semester began. This was a critical step as it measured the capacity of ventilation and filtration systems to manage human influenced IAQ parameters. Intertek also customized a Protek Facility Health Management Scorecard to document compliance with all elements of the program in each school.

## Results:

The first round of testing confirmed that the IAQ and COVID-19 risk reduction measures in place were effectively reducing airborne particle concentrations in many classrooms and other spaces. It also revealed IAQ issues in some schools. EEI and the district's facilities team used this information to investigate system performance and take corrective action. When the schools were retested after classes began, fewer spaces were detected with elevated PM concentrations, but some were found with higher concentrations of CO<sub>2</sub>. The testing data guided a final round of review and adjustment of HVAC system performance, and the placement of appropriate quantities of HEPA air cleaners in all schools.

The testing and scorecards gave the district a quality control process for their safe in-person instruction program, and provided assurance to students, parents, teachers and other stakeholders that best practices were in place to protect health and safety.

**Client:**  
Seattle Public School District

**Project:**  
Indoor Air Quality Testing

**Location:**  
Seattle, WA

## Scope of Services:

In collaboration with Engineering Economics, Inc. (EEI), Intertek guided the school district in developing and implementing a return to in-person education program, including customizing policies and protocols, evaluating airborne pathogen risks in classrooms and other spaces, guiding ventilation and filtration measures in key space types in each school, and conducting indoor air quality (IAQ) testing to validate the efficacy of implemented measures.

Intertek developed and implemented an IAQ testing program, implemented in two phases. The first phase was executed before school commenced in September, testing particulate matter (PM) in representative spaces in all schools (classrooms, cafeterias, music rooms, gyms, etc.), to validate if increased ventilation and enhanced filtration was controlling this key IAQ parameter. The second phase tested PM and carbon

## Background:

The Seattle Public School District needed a proactive approach to ensure health and safety in their 100+ schools when preparing for full-time, in-person instruction. Its program needed to align with CDC and Washington State DOH guidelines, with a comprehensive, layered approach to create a safe and healthy environment for teachers and students.