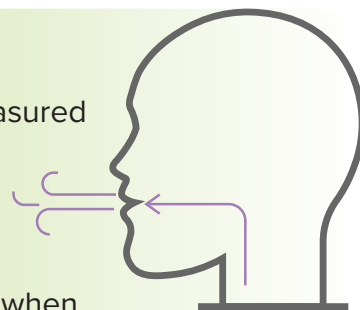


Carbon Dioxide (CO₂) in Schools

Why it matters for Indoor Air Quality

Carbon Dioxide and Classroom Air

- CO₂ is a natural gas we all exhale. It is part of the air we breathe and is measured in parts per million (ppm).
- It is colorless, odorless, and found everywhere in the environment.
- Outdoor CO₂ levels typically range from 400–500 ppm depending on time of day and location.
- Indoor levels are usually higher than outdoors because people create CO₂ when they exhale.
- It is normal for CO₂ readings to change throughout the school day in occupied spaces.



CO₂ Levels and Indoor Air Quality Ranges

- Levels below 1,000 ppm are considered normal in well-ventilated classrooms when the room is fully occupied.
- Levels between 1,000 and 2,500 ppm can make classrooms feel “stuffy,” increase fatigue, and reduce the ability to concentrate.
- Levels above 2,500 ppm can cause drowsiness, headaches, decreased focus, or a stronger awareness of odors.
- Consistently high CO₂ indicates the need for more fresh air in the room.

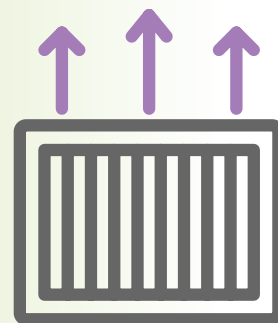
- **Recommended CO₂ Ranges** (measured with an Air Quality Sensor):

- **Excellent:** Less than 800 ppm
- **Good:** 800 ppm - 1000 ppm
- **Needs Improvement:** Greater than 1000 ppm



Reduce CO₂ Levels in Classrooms

- Keep unit ventilators, air supply vents, and returns free of dust, debris, classroom materials, and furniture.
- Ensure vents are functioning properly and delivering fresh air as designed.
- Report concerns or request repairs if systems are not bringing in enough outside air or if the room feels stuffy.
- Open windows for 10–15 minutes (weather and safety permitting) to bring fresh air in and dilute indoor CO₂.



New York State School Environmental Health Program

health.ny.gov/SchoolEnviroHealth

