



## Happy 2023-24 School Year!

Dear Principal and/or Vice-Principal,

We hope you had a restful and happy summer break. Our family is so excited for the start of school, and we are looking forward to all the learning that will take place this year. We are also hopeful for a healthy and happy school year for everyone—with fewer days at home being sick!

[Ontario School Safety](#) is working very hard to fight for better Indoor Air Quality (IAQ) in Ontario schools and on school buses to help keep students, staff, and principals like you healthy. A growing body of research is showing that **many respiratory viruses and bacteria can hang in the air like smoke for hours and be transmitted from person-to-person**. A recent study of over 850,000 US households found that **70% of household spread of COVID-19 started with a child**. And with the recent wildfire smoke events across Ontario in June, it has never been more important to ensure that our schools have good ventilation and filtration—especially since **exposure to wildfire smoke can also make us more vulnerable to respiratory illnesses**.

**Here are a few simple things everyone can do to help improve IAQ so that staff and students can stay healthier this year:**

- **Open windows as much as possible:** Even opening a window a little will make a difference by bringing in fresh air and letting out unhealthy air.
- **Use HEPA air purifiers properly:** Leaving them on at the highest setting possible while students are in the classroom and other areas of the school (e.g. gym, library, lunch rooms, etc.) and placing them away from walls or corners will help clean the air of germs that can make everyone sick. Air purifiers are also essential for protecting all of us from harmful wildfire smoke exposure.
- **Invest in CO<sub>2</sub> Monitors:** Keeping track of the carbon dioxide (CO<sub>2</sub>) levels in all enclosed areas of the school will help give you an idea of how much exhaled air is trapped inside a room, which can be a sign that the ventilation may need to be checked, that the HEPA air purifier should be turned on the highest setting, and that a window should be opened to help bring in fresh air if possible.



Attached you will find the helpful infographic [Clean Air in classrooms using W.A.T.C.H.](#) by Joey Fox, P.Eng. and Chair of the Indoor Air Quality Advisory Group (OSPE). This contains further information on making classroom air healthier for staff and students. Please share it with your school staff so they can learn how to keep their classroom IAQ as healthy as possible.

Thank you for all your hard work—past, present and future—in helping students learn and grow at school.

**Wishing you, your colleagues and all of your students a happy and healthy school year!**

Signed,

A family at your school  
& Ontario School Safety

For more information, visit  
[www.ontarioschoolsafety.com](http://www.ontarioschoolsafety.com).

#### References

Wang, C. C., Prather, K. A., Sznitman, J., Jimenez, J. L., Lakdawala, S. S., Tufekci, Z., & Marr, L. C. (2021). Airborne transmission of respiratory viruses. *Science*, 373(6558), eabd9149.

Tseng, Y. J., Olson, K. L., Bloch, D., & Mandl, K. D. (2023). Smart Thermometer–Based Participatory Surveillance to Discern the Role of Children in Household Viral Transmission During the COVID-19 Pandemic. *JAMA Network Open*, 6(6), e2316190–e2316190.

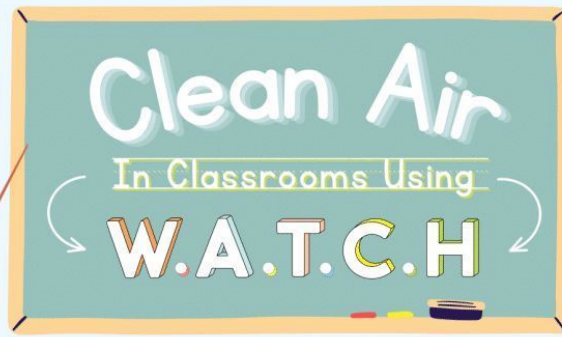
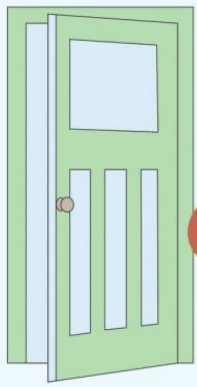
Landguth EL, Holden ZA, Graham J, Stark B, Mokhtari EB, Kaleczyc E, et al. The delayed effect of wildfire season particulate matter on subsequent influenza season in a mountain west region of the USA. *Environment International* [Internet]. 2020 Jun 1 [cited 2023 Jul 20];139:105668. Available from: <https://www.sciencedirect.com/science/article/pii/S0160412019326935>

### **What is Indoor Air Quality?**

Indoor Air Quality (IAQ) refers to the quality of the air inside and around a building. Improving IAQ means ensuring adequate ventilation and filtration, as well as ensuring appropriate temperature and humidity levels within a space. **Research also shows that there are other benefits to improving IAQ in schools, such as:**

- **Improved academic performance**
- **Better focus and attention**
- **Reduced drowsiness and fatigue**
- **Reduced allergy and asthma symptoms**
- **Fewer student and education worker absences**

**In short, improving indoor air quality in schools means better working and learning conditions for everyone!**



## W indows

- Open windows as much as possible.
- If it's cold outside, even cracking windows slightly can help.
- Keeping the classroom door open helps circulate the air even more.
- Warm weather? Having 2 windows open while using a fan to blow air out of 1 of the windows is optimal.

## A ir Movement

Check to see if you feel air coming from the diffusers or air vents.



Attach a ribbon to the vent for an easy visual cue that it's working!

## T hermostat

Keep the **FAN** setting **ON** when the room is being **occupied**.



**AUTO** is **ok** to use when the room is going to be **unoccupied**.

## C o2 Levels



Use a CO2 monitor with a nondispersive infrared (NDIR) sensor

< 600 ppm	Very Good
600 - 800 ppm	Good
800 - 1000 ppm	Acceptable
1000 - 1500 ppm	Poor
> 1500 PPM	Very Poor

\* HEPA filters do not change CO2 levels.

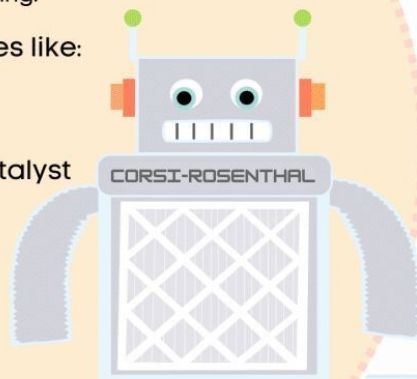
## H EPA Filter or Corsi-Rosenthal Box

Use the highest setting.

\* Noise permitting.

Disable Features like:

- Ionization
- Plasma
- UV with Catalyst
- Auto



### PLACEMENT IS **IMPORTANT**

- Move away from walls & corners. (0.5 m - 1.5 ft)
- Place as close as you can to the centre of the room.
- Avoid blowing directly at anyone.
- Face away from walls & obstructions, e.g. blowing under a table.
- Raised is better than on the floor.
- Keep away from clean air sources: open windows, air vents & other HEPA filters.
- If you have multiple HEPA filters, space them out evenly.