



Healthy Air Quality in Schools

Your healthy classrooms are in YOUR hands

General Recommendations:

- Good ventilation and source control of pollutants mean healthy indoor air quality ([IAQ](#)).
- Teachers and staff need to know who to contact for [IAQ](#) concerns in the school.
- There should be a written school or district Indoor Environmental Quality (IEQ) or IAQ Plan.
- Notify the school or district IAQ contact or maintenance staff if you detect odors or dust from locations such as shops, copy rooms, science labs, laminators, locker rooms, graphic arts, custodial supply rooms, storage areas, combustion equipment, kitchens, or bus exhaust. Document your concerns.
- Immediately report any water leaks, water stains, damp materials, significant spills, and musty, moldy, or other unusual odors.
- Ideally, indoor relative humidity (RH) levels should be between 30% and 50%. Low RH leads to dry eyes and respiratory irritation. High RH allows dust mites to grow and promotes water condensation.
- Dispose of food wastes promptly in covered containers. If possible, avoid eating in classrooms and carpeted areas.

Ventilation

- Operate the [ventilation](#) system continually when the school is in use. Supply at least 15 cubic feet per minute per person of fresh outside air whenever the school is in use. An occupied room is considered to be receiving the minimum amount of fresh air when indoor [carbon dioxide](#) levels are at or below approximately 1100 parts per million (ppm).
- Maintain three feet of clearance around unit ventilators.
- Change ventilation filters regularly. Use the highest rated, deepest pleat filters the system can accommodate.
- Ensure that air supply, exhaust and return vents/grills are not blocked. They should be clean and dry.
- Do not turn off unit ventilators – ask maintenance staff to repair noisy units, control temperatures, and drafts.
- Monitor windows – they should not show water condensation except on the very coldest of days.
- Do not allow vehicles to idle on school property.
- Maintenance staff should follow [Integrated Pest Management](#) (IPM) strategies. Do not use pesticides in the building.

Control [Asthma](#) Triggers

Control Dust

- All outside doors should have large [entry mat barriers](#) (walk-off mats) just inside the door. The mats should provide at least “four good footsteps” of distance.
- Maintain cleanable surfaces and avoid clutter. Put loose items into plastic boxes with lids that can be wet-wiped.
- Damp-wipe surfaces weekly with a micro-fiber cloth.
- Do not hang items from the ceiling T-bars without special clips to prevent fraying fiberglass. Remove or clean items when dusty.
- Discourage clutter; remove as many unnecessary dust-collecting items as possible.
- Use pre-mixed art supplies whenever possible to avoid dusts.
- Replace fabric upholstered furniture with furniture that can be easily dusted.
- Remove area rugs that cannot be regularly cleaned and that trap dirt and moisture – resulting in mold growth.



Reduce Animal Allergens, including Dust Mites

- Animals should not be classroom residents and should only come to school for educational purposes.
- Use IPM practices to prevent cockroach and rodent infestations.
- Store food in tightly sealed containers.
- Seal all cracks and crevices.
- Grate all foundation and roof ventilation.
- Use barriers to discourage birds from roosting.
- Wash stuffed animals and blankets in hot water every two weeks, or remove them.

Reduce Chemicals

- Do not use permanent, solvent-based or scented pens, markers, and board cleaners. Replace with water-based, unscented, crayon-based, or low-odor items.
- Do not use room deodorizing sprays, plug-ins, scented candle warmers, scented reeds, candles, incense, therapeutic oils, or potpourris.
- Do not use urinal cakes.
- Avoid spray adhesives, contact cement, and volatile paints. If [spray adhesives](#) are necessary, use hexane and toluene-free products. Wear solvent-resistant gloves. Spray in an area away from children with local exhaust ventilation.
- Do not bring any chemicals, cleaners, or disinfectants from home. Use only those provided by the district.
- Never use air-cleaning devices that generate ozone. Ozone is a respiratory irritant.
- Discourage use of perfumes, colognes, body sprays and other strongly scented personal care products.
- Hazardous chemicals in laboratories, chemical storage, shops, art rooms and any other areas need to be properly stored and managed to prevent air contamination.

Carpet care

- Whenever possible, do not allow food or beverages in classrooms. If possible, vacuum daily - when children are not present. Use a vacuum with a HEPA (high efficiency particulate air) filter or HEPA vacuum bag or both.
- Clean carpets thoroughly with hot water/steam extraction once or twice per year.
 - Spot treat carpet as needed first;
 - Use the minimum amount necessary of low-odor/low-sudsing carpet shampoo;
 - All shampoo and cleaner needs to be thoroughly extracted until the water runs clean;
 - Carpet should dry thoroughly within 24 – 48 hours after cleaning.

References and further Information:

- [School Environmental Health and Safety](#), Washington State Department of Health (WSDOH)
- [School Indoor Air Quality Best Management Practices Manual](#), Washington State Department of Health (WSDOH)
- [EPA IAQ Tools for Schools](#) Environmental Protection Agency (EPA) Indoor Air Quality Tools for Schools.
- [Creating Healthy Indoor Environments in Schools](#), Environmental Protection Agency (EPA)
- [Taking Asthma Care To School](#), Washington Asthma Initiative
- [Good Ventilation is Essential for a Healthy and Efficient Building](#), WSU Energy Program
- [Measuring Carbon Dioxide Inside Buildings – Why is it Important?](#) WSU Energy Program
- [Selecting Safer Art Adhesives](#), Local Hazardous Waste Management Program in King County, Washington
- [Art Hazards Project](#), Local Hazardous Waste Management Program in King County, Washington

For assistance with implementation or any other IAQ issues, please contact the PSWCT Industrial Hygiene Consultant at ejakab@psed.org or 425-917-7640

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