



Schools as Cleaner Air and Cooling Centers

Tips for Teachers

Communities are facing the impacts of climate change, including severe health consequences from heat waves and wildfires. EPA launched a pilot project in 2021 called Schools as Community Cleaner Air and Cooling Centers to address the combined hazards of extreme heat and wildfire smoke with a focus on spaces that serve children. The goals of this project are to support practical strategies for safeguarding children in schools during heat and smoke events. Teachers can be champions for facility improvements and other actions to keep kids and staff safe during the school day. This fact sheet can help you take the first steps.

HOW TO TALK TO YOUR STUDENTS

As schools improve their buildings' resilience to extreme heat and wildfire smoke events, school staff can share information with families and students to explain the risks these events can pose and ways to stay safe, both in school and at home. The following resources can be used to talk with students. Children's activity books, curricula, interactive online tools, and school-wide programs are available and can be tailored to your needs. Information is constantly being updated and translated into more languages. Some key websites to check for the latest information include www.heat.gov and <https://www.airnow.gov/wildfires/>

As appropriate, share resources with students to increase understanding of the health impacts of heat and smoke, how to find local information, and how to protect themselves and their families. Teachers can work with others in the building – school nurse, counselor, other teachers, and facilities managers – to ensure everyone understands the protocols and can support each other and students during these events. Teachers may also want to use [quick reference guides](#) to recognize signs and symptoms of heat-related illness.

FOR CHILDREN: WILDFIRES AND AIR QUALITY

AirNow

[Air Quality Flag Program for students](#) | [En español](#)

Includes resources to teach children about the environment, clean air, and wildfires.

[Why is Coco Orange?](#) | [En español](#)

Children's book on air quality and staying healthy during poor air quality events.

[Why is Coco Red?](#) | [En español](#)

Children's book on how wildfires affect air quality and health.

[Piplo Productions, Trinkka and Sam: The Big Fire](#)

Available in multiple languages, a resource with a story about a recovery after a fire.

[Ready.gov Ready Kids](#) | [En español](#)

Tools, games, and information on preparing for disasters for kids, teens, parents, and people who work with kids.

FOR CHILDREN: EXTREME HEAT

[CDC: Ready Wrigley Books](#) | English and Spanish children's books following Ready Wrigley the dog preparing for wildfires, smoke, and extreme heat.

[Ready.gov Ready Kids](#) | [En español](#)

Tools, games, and information on preparing for disasters for kids, teens, parents, and people who work with kids.

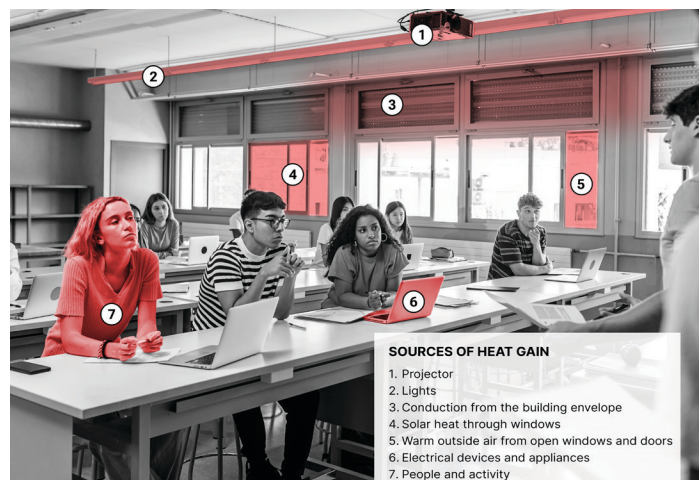


Figure 1: Sources of heat within a typical classroom



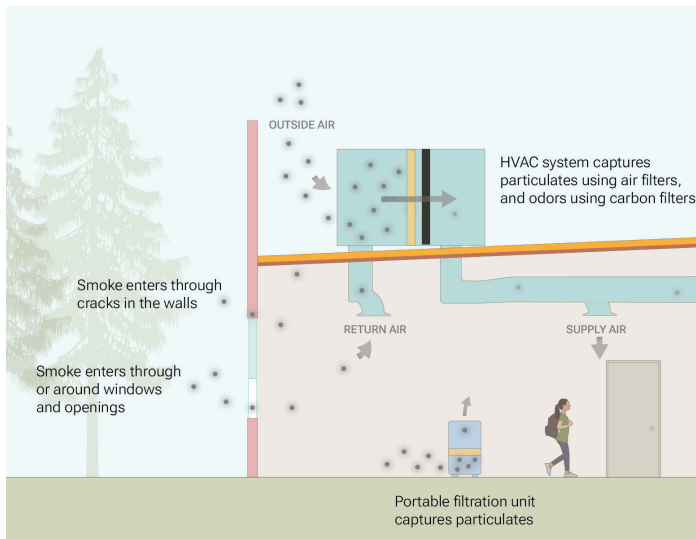


Figure 2: Sources of smoke infiltration during a smoke event

HEAT DAY CHECKLIST

- Coordinate with school nurse to review the signs and symptoms of heat related illness.
- Use window coverings such as closing the blinds or using shading devices/materials (such as foil) to reflect the sun out of the building.
- Dim the lights or use fewer lights.
- Use ceiling fans or room fans to increase airspeeds in the classroom.
- Encourage students to wear appropriate clothing for forecasted hot days in the classroom.
- Increase the frequency of water breaks and/or encourage students to bring water bottles.
- Reduce the use of equipment that produces heat, such as projectors.
- Maintain low-energy activities such as stretching and recovery in lieu of strenuous exercise.
- Check air outlets with a flashlight to ensure that there are no major obstructions that could inadvertently limit airflow. If you see something, notify maintenance before taking corrective action.
- Check with the maintenance department before a forecasted heat wave day to see if you need to make any thermostat adjustments. There may be special initiatives by the maintenance department that involve the thermostat as noted below:
 - Pre-Cooling: Setting the thermostat to a lower temperature to start at a lower temperature at the beginning of the day.
 - Load Shedding: Setting the thermostat to a slightly higher temperature to reduce the electrical strain and cooling capacity strain on the building's systems.
- If there is air conditioning, ensure windows and exterior doors are closed.
 - If the air conditioning system isn't keeping the room cool, check with maintenance before opening the windows. Open windows can bring in more hot air, stressing the system. It could also turn off the air conditioning system if there are automatic HVAC shut off sensors on the windows.

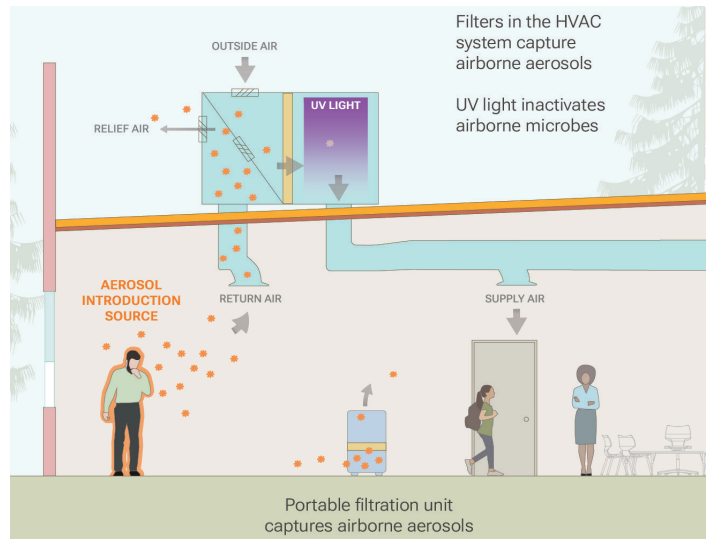


Figure 3: Sources of airborne aerosols and their infiltration

SMOKE DAY CHECKLIST

- Ensure windows and exterior doors remain closed.
- Check for any cracks or openings in the walls/windows/doors and notify maintenance.
- Continue the use of the air conditioning and ventilation systems.
- Check with the maintenance department if portable filtration units should be used.
 - Consider the use of a do-it-yourself air cleaner similar to one here: <https://www.epa.gov/indoor-air-quality-iaq/wildfires-and-indoor-air-quality-iaq>
- Avoid activities that create more fine particles indoors such as:
 - Spraying aerosol products
 - Frying or broiling food
 - Burning candles or incense and using other air fresheners, including plug-ins
 - Vacuuming, unless the vacuum has a HEPA filter
 - Dust-producing activities such as woodworking, laser cutting, additive/3D printing, etc. without source capture exhaust with appropriate filtration
- Avoid strenuous activities to limit smoke inhalation.
- If there are concerns about smoke within the classroom, children ages 2 years and older can wear respirators and masks. However, NIOSH Approved respirators do not come in suitable sizes for very young children. Refer to [CDC Guidance on Wildfire Smoke and Children](#).
- Help students recognize stress and mental health effects of wildfire smoke exposure, especially during longer duration events.

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