PROMOTING
HEALTHY SCHOOL ENVIRONMENTS

A Toolkit for Boston Public Schools



BOSTON Public Schools

boston public schools teaching learning doing green

Healthy, High-Performing Buildings =

Healthy, High-Performing Students

CHILDREN LEARN BEST IN HEALTHY SCHOOLS

This Healthy School Environment Toolkit was developed to assist Boston Public School Principals/ Headmasters and school Wellness Councils with implementing the **Healthy School Environment policy**, a component of the District's Comprehensive Health & Wellness Policy**.**

The Toolkit is a guide for **assessing**, **taking action**, **communicating**, and **evaluating environmental, health and safety issues** in our schools. It provides definitions of environmental factors to consider, links to current policies, procedures, and best practices to address specific environmental factors identified in a BPS school building's annual Environmental Audit.

What is the BPS annual School Environmental Audit?

Since 2002, in compliance with a Boston City Council Ordinance, each BPS school is inspected annually by BPS Environmental Division and the Boston Public Health Commission (BPHC) to assess environmental building conditions such as leaks, mold, pests, chemicals and cleanliness that can affect asthma, health and learning.

Access your school's latest audit.

Why is the Audit important?

Asthma is the leading cause of school absenteeism in the United States. Asthma triggers and allergens in our schools such as mold, dust, pests, chemicals and outdoor pollutants affects students and staff by making it hard to concentrate and can mean frequent visits to the nurse office and missed school time.

Keeping our schools clean, safe, and in good repair requires regular monitoring and proactive maintenance. The annual Audits allow BPS and BPHC the chance to assess each building in depth and take immediate action on any health and safety repairs.

How to Use the Audit Results?

The Audit provides a snapshot of the conditions in our schools. The Audit results for each school are summarized in a **comprehensive report** which is sent to the Principal/Head of School, and the reports are posted publicly on the **BPS website's Schools page**. School Principals/Heads of School are responsible for reviewing their Audit results and other related building condition resources to develop environmental health priorities for the school.

Additionally, the BPS school-based Wellness Councils are encouraged to use the audit results to monitor trends and support the implementation of school environmental policies and programs where they are most needed.

DEVELOPING A HEALTHY SCHOOLS PLAN

Conducting the annual environmental audit is the first step. But a plan must be developed at each school to ensure ongoing actions are taken to address air quality and health issues. The following framework can be used to sustain effective healthy school environmental initiatives that keep the building in good working order and promote health and learning.

As you develop a healthy school plan for your school, consider incorporating best practices from the **EPA's Indoor Air Quality Tools For Schools** program.

	What	Who	When
Assess	The annual BPS school Audits are conducted to establish a baseline of environmental building conditions (# of areas in the school with issues such as leaks, mold, overt signs of pests, clutter, dust, needed repairs)	• BPS Environmental Division and the Boston Public Health Commission conduct Audits • Principal /Head of School receives Audit results • Advocates in school complete their own environmental inspection	• Audits conducted October – August • Audit results emailed to Principal/Head of Schools after inspection completed • Anytime
Act	The school creates a Wellness Action Plan (WAP) using Audit results to address priority environmental health and safety issues	• BPS Facilities Management completes priority work orders • School Wellness Council's (WC) review priority issues from Audit results and WC creates environmental action goals into WAP • Schools submit work orders based on Audit results	• Ongoing • WC develops WAP goals late spring/early fall • Ongoing
Communicate	The healthy schools plan, goals, action steps and results are communicated to various stakeholders through various channels such as	• Principal /Head of School and WC include updates in staff trainings and through various school communications • Principal /Head of School communicates	• Throughout the school year at staff meetings, parent council meetings, newsletters, etc. • Ongoing, as needed

	trainings, memos, WC meetings and more.	regularly with Facilities staff	
Evaluate	Work is monitored, best practices and progress is documented and follow-up action steps are identified	• WC updates WAP • BPS Facilities completes follow-up site visits if necessary	• Ongoing • Ongoing, as needed

HEALTHY SCHOOL ENVIRONMENT ACTION STEPS

Get your school started by taking these simple steps:

1. **Principals/ Heads of School**
   Review their school's annual Environmental Audit to prioritize the environmental, health and safety building conditions that need to be addressed.

2. **Principals/ Heads of School (or school building administrators)**
   Meet with the Wellness Council to initiate environmental health action steps using the audit results and this *Healthy School Environment Toolkit* as a guide.

3. **School-based Wellness Councils**
   Communicate action steps and outcomes with school staff, parents and community partners who use the school building.

HELPFUL RESOURCES

- **BPS Policies & Procedures: Superintendent's Circulars**
- **BPS Healthy & Sustainable Schools**
- **Boston Public Health Commission (BPHC)**
- **EPA - Healthy Schools, Healthy Kids**

HELPFUL CONTACTS

Each BPS school has an assigned team of Facilities Management staff liaisons. You can contact Facilities Management for a current assignment list: Maria Lew-Houston (617) 635-9126

- Healthy & Sustainable Schools - kwalsh4@bostonpublicschools.org
- Drinking Water - ang@bostonpublicschools.org
- Zero Waste - vleary@bostonpublicschools.org
- Outdoor Teaching and Learning - mmartinat@bostonpublicschools.org
- Energy - (617) 635-8740
- Environment, Health, and Safety - (617) 635-8300
- Planning & Engineering (Alterations & Repairs, Fire Alarms, Plumbing, HVAC, Electrical, Security, Roofing, Civil Engineering) - (617) 635-8300
- Building Services (Custodial, Grounds, Distribution) - (617) 635-9162

HEALTHY SCHOOL ENVIRONMENTS BEST PRACTICES BY ENVIRONMENTAL CONDITION

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Leaks and Water Stains

Monitor the number of rooms that have evidence of one or more water leaks. This could include water stains or discoloration on walls, floors, or ceiling tiles as well as active leaks where water is present. Leaks are of concern because persistent moisture can promote mold growth as well as encourage insect or rodent infestations.

Policies and Procedures

- If minor plumbing leaks are identified, submit a work order for the issue.
- If emergency leaks are identified, contact your Plumbing Supervisor and/or your Area Manager immediately or call 617-635-9162.

Tips and Best Practices

- Monitor areas where leaks were identified.
- Conduct your own walk through/inspection, including less occupied spaces such as closets, mechanical rooms, and basements.
- Assess if work order repairs were completed and if water damaged materials were replaced (within 24-48 hrs).
- Create a system for staff to report leaks and/or environmental building problems (a binder in front office, email, key person).
- Identify if leaks are caused by activities in the school that require a behavioral response (ex. students clogging a sink or toilet) or from other structural reasons (ex. leaky roof, pipes, and windows).
- Review **EPA resources on mold**.

Visible Mold Growth

Molds are fungi that can be found both indoors and outdoors. Molds grow best in warm, damp, and humid conditions, and spread and reproduce by making spores. Mold can look like grey-black powder on or near water-damaged areas, spots or patches. Mold remediation is a high priority repair because it can be an asthma trigger and/or cause respiratory problems and allergic sensitization.

Policies and Procedures

- **BPS Asthma Policy: SHS 20**
- If mold is noted in the Audit report, BPS Facilities will prioritize it for remediation.
- If you suspect mold in your school, contact your Environmental Supervisor and/or your Area Manager.

Tips and Best Practices

- Moisture problems should be addressed promptly. Wet areas should be dried out within 24 to 48 hours.
- On your walkthrough of the school, take note of the specific places that are stained, seem damp or have active leaks.
- Monitor the work orders for leak repair so they don't become a potential cause of mold and health problems in the future.
- Be aware of hidden mold. Some building materials, such as dry wall may trap moisture underneath their surfaces where mold can grow. You may suspect hidden mold if a building smells moldy, but you cannot see the source, or if you know there has been water damage and building occupants are reporting health problems.
- Teachers should not try to clean mold in their classrooms.
- Review EPA's "**Mold Remediation in Schools and Commercial Buildings**" to learn about managing mold growth in schools.

Overt Pest Signs: Integrated Pest Management (IPM)

IPM is required by State Law. IPM is designed to control pests while using little to no chemical pesticides. Pests are a concern for sanitation reasons and because they are asthma and allergy triggers.

Policies and Procedures

- **BPS Integrated Pest Management (IPM) Policy: FMT-10**
- **BPS Asthma Policy: SHS 20**
- Every school must have an IPM Coordinator identified and maintain an IPM Log to document pest problems.

- Each school is assigned an IPM contactor who conducts regular inspections and reports on IPM actions in the IPM log.
- All pest concerns should be addressed to the BPS Environmental Division.

Tips and Best Practices

- Each school must designate an IPM Coordinator who regularly checks the log to see problem areas. The IPM Coordinator communicates with the pest contractor and faculty for prevention strategies documented in the IPM log (ex. store food properly, clean up/spill plan for classroom eating, if possible keep all eating in cafeteria)
- Control where food is served – ideally limit meals to the cafeteria.
- If food is served in classrooms, ensure the recycling and trash equipment can handle waste from meals and teachers have equipment to clean up after each meal.
- Make sure proactive pest management is taking place all day long by training volunteer groups and before and after-school program staff. Ensure they know proper maintenance of trash and recycling, and food policies (where it can be served, stored, etc.) to reduce pest infestation.
- Do a *pest walkthrough* in problem areas to identify things that attract pests (water, food, clutter, access from outside through cracks and lack of door sweeps).
- Communicate to staff best practices and also when there are issues. Continue to monitor throughout the year.
- Use the resources found on the **BPS Healthy & Sustainable Schools website**.

Clutter, Dust, Recycling

It is important to manage clutter in the classroom as it contributes to the build-up of dust, hides places where mold may be growing, blocks ventilation units, or provides places for pests to live and hide. Clutter also makes it difficult to clean. Dust can cause allergic reactions and make asthma worse. Recycling helps reduce clutter and dust and rids the classroom of excess paper, books, and equipment that are no longer needed.

Policies and Procedures

- **BPS Zero Waste & Recycling Policy: FMT-08**
- **BPS Asthma Policy: SHS 20**
- Every school should have a Recycling Coordinator to educate and encourage students and staff about proper recycling.
- Each room and desk should have one trash bin and one recycling bin. Please complete **the order form** to order more if needed.
- Recycle E-waste by completing OIIT Form 57 to have computers, monitors, etc., removed from the building. Please request the form from OIIT.
- Contact the BPS Zero Waste & Sustainability Project Manager with questions about recycling (books, metal, large volumes of any item).

- All furniture waste must be reviewed by BPS Facilities Management for reuse, redistribution, or proper disposal. Contact Richelle Singh-Williams, rsingh@bostonpublicschools.org or 617-635-9648, to schedule a furniture review.

Tips and Best Practices

- Use the **BPS Declutter & Green-Out Guide** to help plan your cleanout.
- Involve the Recycling Coordinator(s) and Custodian on the Wellness Council.
- Educate staff, teachers, students, partners and visitors about recycling best practices using the "**BPS Zero Waste Guide**".
- Organize a Recycling Club or Green Team with students to monitor recycling systems so that it remains clean and well used.
- Host an annual kick off assembly or training program at the start of the school year to get everyone on the same page about the recycling program.
- Don't allow materials to pile up as this can foster pests.
- Organize an annual Locker Clean Out or Clutter Clean Out Event (especially if 25% of rooms are documented as cluttered on the Audit report).
- Shadow the Custodians and learn what their workflow process is like, and what regular and special custodial cleaning tasks are (garbage removal times, heavy cleaning, and vacation cleaning, etc.)
- Purchase **Environmentally Preferable Products** that use less energy, are healthy and can be recycled.

Indoor Air Quality

"Good IAQ contributes to a favorable environment for students, performance of teachers and staff, and a sense of comfort, health, and well-being. These elements combine to assist a school in its core mission — educating children." (U.S. EPA) Because school-aged children and teachers spend 6-10 hours a day inside schools, having good indoor air quality and a comfortable temperature in our buildings is key to ensuring the health and well-being of our students and educators, and to promoting optimal teaching and learning.

The EPA's IAQ Tools for Schools definition of good indoor air quality management includes:

- Control of airborne pollutants;
- Introduction and distribution of adequate outdoor air; and
- Maintenance of acceptable temperature and relative humidity.

Policies and Procedures

- **BPS Indoor Air Quality Monitoring and Response Action Plan**
- **BPS Asthma Policy: SHS 20**
- **BPS Green Cleaners Policy: FMT11**
- BPS Energy and Safety Services Memo: personal heaters, microwaves, toaster ovens, etc., are illegal in schools.

- Contact the BPS Energy Division (617-635-8740) with temperature and energy issues. Contact the HVAC Division (617-635-8300) with HVAC issues. Contact **indoorairquality@bostonpublicschools.org** with general IAQ questions.

Tips and Best Practices

- Never touch or tamper with the BPS Indoor Air Quality sensors.
- Report to Facilities Management, via the Asset Essentials Work Order System, repairs needed for HVAC systems, leaks, windows, and doors.
- Air fresheners (e.g. plug-ins) and personal cleaners (e.g. Clorox wipes or Lysol spray bottles) are never permitted as they can add irritating chemicals to the indoor air and/or interfere with the proper functioning of the air quality sensors. These personal products are not allowed per the **BPS Green Cleaners Policy: FMT11**.
- Declutter your space. Clutter collects dust, an asthma trigger, harbors pests and impedes the Integrated Pest Management contractor from inspecting and treating areas, impedes Custodial cleaning of surfaces and floors, and blocks inputs and outputs on HVAC systems. Clutter can also be a fire hazard, particularly in electrical closets, where storage is not permitted.
- Cars and buses shall follow all school-related anti-idling laws.
- Never block, change, or turn off HVAC systems.
- Open one operable window to 4 inches (if applicable).
- Open one corridor-facing door.
- Turn on one air purifier - recommended to be kept on during school hours.
- Learn about how you can maintain your classroom to be healthy by taking the **Green Classroom Professional Certificate** online course.

Read more

- **U.S. EPA IAQ**
- **Harvard Healthy Buildings - Schools**
- **U.S. EPA Tools for Schools**
- **Clean Air in Buildings Challenge**
- **BPS IAQ Monitoring System and Dashboard**

Building Repairs

Maintaining schools and proactively addressing repair needs is important for keeping buildings healthy, safe and high-performing. During the Audit, inspectors issue work orders for priority health and safety issues and notify the appropriate BPS Facilities Management to file work orders on other needed repairs.

Policies and Procedures

- All repair and maintenance needs identified by school personnel should be submitted through the work order system.

Tips and Best Practices

- Principal/Headmaster and Wellness Councils should review the school's Audit Repair report and ensure work orders are submitted for each issue identified.
- Identify a point person in the school who can monitor work orders.
- Bring work order reports to Wellness Council meetings to track progress.
- Work orders that are considered health and safety hazards should be elevated immediately and prioritized by BPS Facilities Management.

Chemicals and Chemical Storage

There are many chemicals in the school environment. Some of them are known health hazards, such as lead and asbestos, which are monitored to prevent dust and fibers from becoming airborne. BPS has a number of policies on chemical use and storage in order to comply with state and federal regulations. Others are policies BPS developed as a best practice for safe and healthy environments, such as the Green Cleaners Policy.

Policies and Procedures

- **BPS Asthma Policy: SHS 20**
- **BPS Green Cleaners Policy: FMT11**
- **Science Safety in School Laboratories and Classrooms FMT-18**
- **M.G.L Chapter 21H – Mercury Management**
- Contact BPS Environmental Division if chemicals or toxic materials are found improperly stored.

Tips and Best Practices

- Educate building occupants about the Green Cleaners policy and monitor to make sure people DO NOT bring their own cleaning products into the schools.
- Ask your Custodian to provide each classroom with all-purpose cleaner (in labeled spray bottles) and a supply of paper towels. The custodian should fill the bottles upon request.
- Do not bring in "plug-ins" or fragrance sprays. They can be respiratory irritants and make asthma worse.
- If there is evidence of chipped paint, determine if it is a hazardous material.
- Purchase **Environmentally Preferable Products** that are low emitting and environmentally safer.

Construction/ Renovation Projects and Volunteer Projects

Policies and Procedures

- **BPS Renovations to School Buildings and Yards – FMT 03**
- **BPS Facilities Volunteer Projects: FMT-17**
- Facilities Management conducts air testing after the completion of projects, especially those that involve painting, sealants and other chemical applications.

Tips and Practices

- Be aware of how school construction projects may affect environmental health – dust, fumes, debris, noise, etc. No construction should be completed during school hours that will create major disruptions, and painting projects must be done with adequate time for ventilating.
- Contractors completing work on school property must have Safety Data Sheets available that have health and safety information on the materials used.
- Plan with school staff on how to safely move, store or pack classroom furniture, equipment and materials so they do not become covered in construction dust.
- Make sure your school volunteers are familiar with the environmental guidelines outlined in FMT-17.

Tobacco

The use and promotion of tobacco products on school grounds and at off-campus school-sponsored events is detrimental to the health and safety of students, staff, and visitors.

Policies and Procedures

- **BPS Tobacco Free Environmental Policy: HWD 06**
- **MA Smoke-Free Workplace Law - M.G.L Chapter 270 Sec. 22 & Chapter 71 Sec. 2A**

Tips and Best Practices

- Identify point person(s) to implement, monitor and enforce Tobacco Free policy.
- Hang “Tobacco Free” signs in accordance with BPHC on school sites.
- Educate students, staff and families about the policy and about smoke free living; include policy in student, staff and parent handbooks; have staff sign that they are aware of the BPS policy.
- Include smoking cessation programming as part of school Wellness programming.

Anti-idling and Outdoor Pollution

Cars and buses that idle outside a school emit particulates that cause air pollution and are respiratory irritants for students, staff and visitors. Vehicle exhaust close to the school building is likely to be pulled into the school through open doors or exterior ventilation systems. In addition to direct health impacts onsite, emissions from idling contribute to climate change.

Pollen and other outdoor pollutants that make their way into the school can trigger allergic reactions and asthma attacks.

Policies and Procedures

- **MGL Chapter 90, Section 16A** prohibits idling of vehicles beyond 5 minutes.

Tips and Best Practices

- Limit school bus idling time and direct drivers to turn off buses and cars when they arrive at the school.
- Provide a safe space for drivers to wait inside the school if they arrive early, especially in the winter.
- Post “idling limit” signs (available from BPS Transportation Department) wherever buses and vehicles linger.
- Consult with the BPS Transportation Department to design vehicle drop off and pick up patterns to reduce idling time and exhaust exposure for students and staff.
- Learn about and educate others about managing student’s exposure to outdoor pollen or pollution.
- Establish school policies to manage exposure on high pollution days.