

# PROMOTING HEALTHY SCHOOL ENVIRONMENTS

## Resource Toolkit for Schools



**Healthy High Performing Buildings =  
Healthy High Performing Students**

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# KIDS LEARN BEST IN HEALTHY SCHOOLS

This Healthy School Environment Resource Toolkit was developed to assist Boston Public School Principals/ Headmasters and their Wellness Councils implement 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 monitoring & 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 their building's annual Environmental Audit (Audit).

## What is the BPS annual Environmental Audit?

Since 2002, in compliance with a Boston City Council Ordinance, each Boston school is inspected annually by BPS 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.

[Learn more about the BPS Environmental Audit](#)

## Why is the audit important?

Asthma is the leading cause of school absenteeism, accounting for nearly 13 million missed school days per year. 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/Headmaster. A summary report is posted on each school's website. School Principals/Headmasters are responsible for reviewing their Audit results and other related building condition resources to develop environmental health priorities for the school.

Additionally, the [Citywide Healthy Schools Taskforce](#) uses the audit results to monitor trends overtime 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 IAQ Tools For Schools](#) program.

	<b>What</b>	<b>Who</b>	<b>When</b>
<b>Assess</b>	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)	<ul style="list-style-type: none"> <li>• BPS Environmental Health &amp; Safety Department and the Boston Public Health Commission conduct Audits</li> <li>• Principal /Headmaster receives Audit results</li> <li>• Advocates in school complete their own environmental inspection</li> </ul>	<ul style="list-style-type: none"> <li>• Audits conducted October – April</li> <li>• Audit results emailed to Principal/Headmaster shortly after inspection completed</li> <li>• Anytime</li> </ul>
<b>Act</b>	A Wellness Action Plan (WAP) is created using Audit results to address priority environmental health and safety issues	<ul style="list-style-type: none"> <li>• BPS Facilities completes priority work orders</li> <li>• School Wellness Council's (WC) review priority issues from Audit results and WC creates environmental action goals into WAP</li> <li>• Schools submit work orders based on Audit results</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing</li> <li>• WC develops WAP goals late spring/early fall</li> <li>• Ongoing</li> </ul>
<b>Communicate</b>	The healthy schools plan, goals, action steps and results are communicated to various stakeholders through various channels such as trainings, memos, WC meetings and more.	<ul style="list-style-type: none"> <li>• Principal /Headmaster and WC include updates in staff trainings and through various school communications</li> <li>• Principal /Headmaster communicates regularly with Facilities staff</li> </ul>	<ul style="list-style-type: none"> <li>• Throughout the school year at staff meetings, parent council meetings, newsletters, etc.</li> <li>• Ongoing, as needed</li> </ul>
<b>Monitor &amp; Evaluate</b>	Work is monitored, best practices and progress is documented and follow-up action steps are identified	<ul style="list-style-type: none"> <li>• WC updates WAP</li> <li>• BPS Facilities completes follow-up site visits if necessary</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing</li> <li>• Ongoing, as needed</li> </ul>

# HEALTHY SCHOOL ENVIRONMENT ACTION STEPS

Get started in your school by taking these simple steps:

## 1. Principals/ Headmasters

Review their school's annual Environmental Audit to prioritize the environmental, health and safety building conditions that need to be addressed.

## 2. Principals/ Headmasters (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. Wellness Councils

Communicate action steps and outcomes with school staff, parents and community partners who use the school building.

## Helpful Resources

- [BPS Circulars](#) (Facilities, Health & Wellness)
- [BPS Healthy School Environment Programs](#)
- [Boston Public Health Commission \(BPHC\)](#)
- [EPA - Environmental Health in Schools](#)

## Helpful Contacts

Each BPS school has a team of Facilities staff liaisons for the following areas. You can contact Facilities for an up to date list – Maria Lew-Houston (635-9162)

- Environmental, Alterations & Repairs, Fire Alarms, Plumbing, HVAC, Electrical, Security, Roofing, Civil Engineering, Custodial Services (617-635-8300)
- Materials Distribution (617-635-8745)
- Energy (617-635-8740)
- Maintenance (617-635-8290)
- Waste Removal, Custodial Services (617-635-9162)

# HEALTHY SCHOOL ENVIRONMENTS BEST PRACTICES

Environmental Conditions	Policies and Procedures	Tips and Best Practices
<p><b><u>Leaks/Water Stains</u></b></p> <p><i>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</i></p>	<ul style="list-style-type: none"> <li>• If minor plumbing leaks are identified, submit a work order for the issue.</li> <li>• If emergency leaks are identified, contact your Plumbing Supervisor and/or your Area Manager immediately or call 617-635-9162.</li> </ul>	<ul style="list-style-type: none"> <li>• Monitor areas where leaks were identified.</li> <li>• Conduct your own walk through/inspection including less occupied spaces such as closets, mechanical rooms, basement.</li> <li>• Assess work order repairs were completed and if water damaged materials were replaced (within 24-48 hrs).</li> <li>• Create a system for staff to report leaks and/or environmental building problems (a binder in front office, email, key person).</li> <li>• Identify if leaks are caused by activities in the school which require a behavioral response (ex. students clogging a sink or toilet) or from other structural reasons (ex. leaky roof, pipes, and windows).</li> <li>• Review <a href="#">EPA resources on mold</a></li> </ul>
<p><b><u>Visible Mold Growth</u></b></p> <p><i>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.</i></p>	<ul style="list-style-type: none"> <li>• <a href="#">BPS Asthma Policy: SHS 20</a></li> <li>• If mold is noted in the Audit report, BPS Facilities will prioritize it for remediation.</li> <li>• If you suspect mold in your school, contact your Environmental Supervisor and/or your Area Manager.</li> </ul>	<ul style="list-style-type: none"> <li>• Moisture problems should be addressed promptly. Wet areas should be dried out within 24 to 48 hours.</li> <li>• On your walkthrough of the school, take note of the specific places that are stained, seem damp or have active leaks.</li> <li>• Monitor the work orders for leak repair so they don't become a potential cause of mold and health problems in the future.</li> <li>• 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.</li> <li>• Teachers should not try to clean mold in their classrooms.</li> <li>• Review EPA "<a href="#">Mold Remediation in Schools and Large Buildings</a>" to learn about managing mold growth in schools.</li> </ul>
<p><b><u>Overt Pest Signs: Integrated Pest Management (IPM)</u></b></p> <p><i>IPM is required by State Law. IPM is designed to control pests while using little to no chemical pesticides. Pests are a</i></p>	<ul style="list-style-type: none"> <li>• <a href="#">BPS Integrated Pest Management (IPM) Policy: FMT-10</a></li> <li>• AND <a href="#">BPS Asthma Policy: SHS 20</a></li> <li>• Every school must have an IPM Coordinator identified and maintain an IPM Log to</li> </ul>	<ul style="list-style-type: none"> <li>• 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)</li> <li>• Control where food is served – ideally limit</li> </ul>

<p><i>concern for sanitation reasons and because they are asthma and allergy triggers.</i></p>	<p>document pest problems.</p> <ul style="list-style-type: none"> <li>• Each school is assigned an IPM contactor who conducts regular inspections and reports on IPM actions in the IPM log.</li> <li>• All pest concerns should be addressed to BPS Environmental Health &amp; Safety Department.</li> </ul>	<p>meals to the cafeteria.</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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, food policies (where it can be served, stored) to reduce pest infestation.</li> <li>• Do a <i>pest walkthrough</i> in problem areas to identify things that attract pests (water, food, clutter, access from outside through cracks and lack of door sweeps).</li> <li>• Communicate to staff best practices and also when there are issues. Continue to monitor throughout the year.</li> <li>• Use the "<a href="#">Healthy School Tips for Staff</a>" factsheet to educate staff and teachers.</li> </ul>
<p><b><u>Clutter, Dust, Recycling</u></b></p> <p><i>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.</i></p>	<ul style="list-style-type: none"> <li>• <a href="#">BPS Recycling Policy: FMT-08</a></li> <li>• AND <a href="#">BPS Asthma Policy: SHS 20</a></li> <li>• Every school should have a single stream recycling program and a Recycling Coordinator in place.</li> <li>• Recycle E-waste by completing OIIT Form 54 to have computers, monitors, etc., removed from the building.</li> <li>• Contact the Waste Management Area Manager or BPS Sustainability Manager with questions about recycling (books, metal, large volumes of any item).</li> </ul>	<ul style="list-style-type: none"> <li>• Involve the Recycling Coordinator(s) and Custodian on the Wellness Council.</li> <li>• Educate staff, teachers, students, partners and visitors about recycling best practices using the "<a href="#">BPS Recycling Guide</a>".</li> <li>• Organize a Recycling Club or Green Team with students to monitor recycling systems so that it remains clean and well used.</li> <li>• 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.</li> <li>• Don't allow materials to pile up as this can foster pests.</li> <li>• Organize an annual Locker Clean Out or Clutter Clean Out Event (especially if 25% of rooms are documented as cluttered on the Audit report).</li> <li>• Shadow the Custodians and learn what their workflow process is like, what regular and special custodial cleaning tasks are (garbage removal times, heavy cleaning, and vacation cleaning, etc.)</li> <li>• Purchase <a href="#">Environmentally Preferable Products</a> that use less energy, are healthy and can be recycled.</li> </ul>
<p><b><u>Indoor Air Quality</u></b></p> <p><i>Indoor air quality (IAQ) is a concern in many schools due in part to the age and growing deferred</i></p>	<ul style="list-style-type: none"> <li>• <a href="#">BPS Asthma Policy: SHS 20</a></li> <li>• AND <a href="#">BPS Green Cleaning Policy: FMT11</a></li> <li>• BPS Energy Memo: radiators, microwaves,</li> </ul>	<ul style="list-style-type: none"> <li>• Using the Audit results, conduct your own Air Quality walkthrough targeting spaces that had hot (above 75 degrees) or cold (below 68 degree) readings or carbon dioxide levels above 900.</li> <li>• Consider educating yourself with this EPA</li> </ul>

<p><i>maintenance list. Good IAQ means that building occupants are thermally comfortable, the air is clean, chemicals are reduced, and furniture and equipment brought into the school are made of healthy materials.</i></p>	<p>toaster ovens, etc., are illegal in schools.</p> <ul style="list-style-type: none"> <li>• Contact the BPS Energy Division with temperature and energy issues.</li> </ul>	<p><a href="#">“Virtual Walkthrough Webinar”</a> or working with an expert who has access to diagnostic tools and take measurements during the audit.</p> <ul style="list-style-type: none"> <li>• Look closely for blocked, dirty vents that could impede air flow.</li> <li>• Review work orders and previous complaints to monitor if issues are temporary or chronic and how they are being addressed.</li> <li>• Use the <a href="#">“Asthma-friendly &amp; Healthy Air Quality Tips”</a></li> <li>• Review <a href="#">“EPA IAQ Tips”</a> tips on maintaining good ventilation and <a href="#">“MA Thermal Comfort Guidelines”</a></li> <li>• Learn about how you can maintain your classroom to be healthy by taking the <a href="#">Green Classroom Professional Certificate</a> online course.</li> </ul>
<p><b><u>Building Repairs</u></b></p> <p><i>Maintaining schools and proactively addressing repair needs is important for keeping buildings healthy, safe and high-performing.</i></p> <p><i>During the Audit, inspectors issue work orders for priority health and safety issues and notify the appropriate BPS Facilities division to file work orders on other needed repairs.</i></p>	<ul style="list-style-type: none"> <li>• All repair and maintenance needs identified by school personnel should be submitted through the work order system.</li> </ul>	<ul style="list-style-type: none"> <li>• Principal/Headmaster and Wellness Council’s should review the school’s Audit Repair report and ensure work orders are submitted for each issue identified.</li> <li>• Identify a point person in the school who can monitor work orders.</li> <li>• Bring work order reports to Wellness Council meetings to track progress.</li> <li>• Work orders that are considered health and safety hazards should be elevated immediately and prioritized by BPS Facilities Management.</li> </ul>
<p><b><u>Chemicals and Chemical Storage</u></b></p> <p><i>There are many chemicals in the school environment. Some of them are known health hazards such as lead and asbestos, which are monitored to make sure that they don’t chip or become airborne. BPS has a number of policies on chemical use and storage in order to comply with state and federal regulations. BPS also developed policies as a best practice for safe and healthy environments such as the Green Cleaning Policy.</i></p>	<ul style="list-style-type: none"> <li>• <a href="#">BPS Asthma Policy: SHS 20</a></li> <li>• AND <a href="#">BPS Green Cleaning Policy: FMT11</a></li> <li>• AND <a href="#">Chemical Inventory Right to Know: FMT 07</a></li> <li>• <a href="#">M.G.L Chapter 21H – Mercury Management</a></li> <li>• Contact BPS Environmental Health &amp; Safety Department if the following is found improperly stored chemicals, chipped paint, toxic materials.</li> </ul>	<ul style="list-style-type: none"> <li>• Educate building occupants about the Green Cleaning policy and monitor to make sure people DO NOT bring their own cleaning products into the schools.</li> <li>• 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.</li> <li>• Do not bring in “plug-ins” or fragrance sprays. They can be respiratory irritants and make asthma worse.</li> <li>• If there is evidence of chipped paint, to determine if it is a hazardous material.</li> <li>• Purchase <a href="#">Environmentally Preferable Products</a> that are low emitting and environmentally safer.</li> <li>• Review <a href="#">information from MA DEP about improving school health</a>.</li> </ul>
<p><b><u>Construction/</u></b></p>	<ul style="list-style-type: none"> <li>• <a href="#">BPS Renovations to</a></li> </ul>	<ul style="list-style-type: none"> <li>• Be aware of how school construction</li> </ul>

<p><b><u>Renovation projects and Volunteer Projects</u></b></p> <p><i>Renovation and maintenance projects in schools must be scoped out and scheduled in a manner to not cause disruptions to the school day or cause environmental health issues. Any volunteer project must be reviewed by Facilities and must meet BPS green volunteer guidelines.</i></p>	<p><a href="#">School Buildings and Yards – FMT 03</a></p> <ul style="list-style-type: none"> <li>• AND <a href="#">Facilities Volunteer Projects: FMT-17</a></li> <li>• Facilities Management conducts air testing after the completion of projects, especially those that involve painting, sealants and other chemical applications.</li> </ul>	<p>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.</p> <ul style="list-style-type: none"> <li>• Contractors completing work on school property must have Safety Data Sheets available that have health and safety information on the materials used.</li> <li>• 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.</li> <li>• Make sure your school volunteer groups are familiar with the environmental guidelines in FMT-17 &amp; projects are reviewed by Facilities</li> <li>• Read EPA “<a href="#">School Design and Renovation</a>”</li> </ul>
<p><b><u>Tobacco</u></b></p> <p><i>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.</i></p>	<ul style="list-style-type: none"> <li>• <a href="#">BPS Tobacco Free Environmental Policy: HWD 06</a></li> <li>• MA Smoke-Free Workplace Law - M.G.L Chapter 270 Sec. 22 &amp; Chapter 71 Sec. 2A</li> <li>• Boston Clean Air Works Workplace Smoking Restrictions Regulation</li> <li>• Education Reform Act of 1993 and M.G.L 370 Section 22</li> </ul>	<ul style="list-style-type: none"> <li>• Identify point person(s) to implement, monitor and enforce Tobacco Free policy.</li> <li>• Hang “Tobacco Free” signs in accordance to BPHC on school sites.</li> <li>• Educate students, staff and families about the policy and about <a href="#">smoke free living</a>; include policy in student, staff and parent handbooks; have staff sign that they are aware of the policy.</li> <li>• Include smoking cessation programming as part of school Wellness programming.</li> <li>• Review Tobacco Prevention Resource Guide.</li> </ul>
<p><b><u>Anti-idling and Outdoor Pollution</u></b></p> <p><i>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 global warming.</i></p> <p><i>Pollen and other outdoor pollutants that make their way into the school can trigger allergic reactions and</i></p>	<ul style="list-style-type: none"> <li>• <a href="#">MGL Chapter 90, Section 16A</a> prohibits idling of vehicles beyond 5 minutes</li> </ul>	<ul style="list-style-type: none"> <li>• Limit school bus idling time and direct drivers to turn off buses and cars when they arrive to the school.</li> <li>• Provide a safe space for drivers to wait inside the school if they arrive early, especially in the winter.</li> <li>• Post “idling limit” signs (available from BPS Transportation Department) wherever buses and vehicles linger.</li> <li>• 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.</li> <li>• <a href="#">Learn about</a> and educate others about managing student’s exposure to outdoor pollen or pollution.</li> <li>• Establish school policies to manage exposure on high pollution days.</li> <li>• Fly a colored air quality flag each day to notify the school community of high pollution</li> </ul>



asthma attacks.		days.
<p><b><u>Water Access</u></b></p> <p><i>The availability of free, safe water for all students and staff in Boston schools is integral to the mission of the district in supporting healthy habits.</i></p> <p><i>Studies show that students who have access to water at school will drink less sugary beverages during the school day. According to federal and state law, students must have access to water throughout the school day, at no cost.</i></p>	<ul style="list-style-type: none"> <li>• <a href="#">Healthy, Hunger-Free Kids Act (Public Law 111-296)</a> mandates that all schools participating in the School Meals program must make water available where school meals are served, free of charge, to all students during mealtimes</li> <li>• <a href="#">Massachusetts General Law (Title XVI, Chapter 111: Section 223)</a> required that all public schools must make available plain, potable water to all public school students during the day, at no cost to the students, with an implementation date of September 8, 2011</li> <li>• Massachusetts State Plumbing Code requires one water access point per 75 occupants.</li> </ul>	<ul style="list-style-type: none"> <li>• On a regular basis, assess the working condition of water fountains or bottle water stations.</li> <li>• If fountains are broken, complete a work order request to BPS Facilities Management to get the fixture fixed. If bottled water coolers are broken, contact Jackie Mainey at 635-9135 to order a replacement.</li> <li>• For schools using bottled water, it is the role of the school principal or headmaster to assign a staff person or people to put bottles of water onto the water bubblers. It is essential that bottles are regularly replaced, and cups provided, to ensure access to free water for all students.</li> <li>• Whether your school is using bottled or tap water, make sure you have a plan for routine maintenance and cleaning of water sources.</li> <li>• For schools using bottled water, it is the role of the school principal or headmaster to assign a staff person or people to keep track of the water and cup stock and place regular orders to ensure the school does not run out. Water and cups are ordered through Jackie Mainey at 635-9135.</li> </ul>