

A **Multi-Clean** White Paper

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Multi-Clean[®]
Your Guide To Clean

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Multi-Clean supports clean and healthy schools through sponsorship of the Healthy Schools Campaign.

Healthy Schools = Healthy Minds

How to create a Healthier Indoor Environment that is conducive to learning and offers the potential to reduce illness and absenteeism.

There is mounting evidence to suggest a link between the success of students in school and those facilities that utilize a variety of pro-active strategies aimed at improving the physical environment. This white paper discusses 4-Pillars of Healthy Schools that identifies action items to help make facilities healthier learning environments with potential to reduce absenteeism and raise student success.

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Introduction

Illness related absenteeism and nearly epidemic rates of asthma amongst school age children is creating a clear call to action to improve the indoor environment in public and private schools. There is credible research suggesting that students attending schools in poor condition score lower on standardized tests than students who attend schools in good condition.

Problem Statement

The public tends to expect that facilities, especially our schools, are well maintained. Yet there remains a huge disconnect between public expectations and the cost to maintain a facility. Cleaning and Maintenance operating budgets remain a sacrificial lamb when the budget ax falls. Maintaining a facility should no longer be taken for granted, for it is the health of our students and teachers that can be impacted.

When children are absent from school due to illness, they fall behind. When they are present, but ill in school, their capacity to learn is impaired. Average daily attendance (ADA) rates have been shown to improve and dropout rates decrease when adequate budgets are provided to minimize maintenance backlogs. Further improvement has been demonstrated by reducing the area that each custodian must maintain.²

Within the scope of budget realities, schools can still make improvements by changing from reactive maintenance to pro-active maintenance.

We have identified the 4 Pillars of success, that when addressed in combination, have the potential to produce a dramatically improved indoor environment that is healthier for all building occupants. At the same time, addressing all components within the 4-Pillars can result in the improving the schools overall environmental impact.

Average Daily Attendance (ADA) rates improve by 1 student for each 1000 ft² reduction in the area each custodian must maintain.

Providing an annual budget that minimizes maintenance backlogs has been shown to increase ADA rates by 4-5 students and reduce dropout rates by 10-13 students per 1000.

The K12 Healthy Schools 4-Pillars

To create a healthier and more productive environment for students, teachers, and staff, we identify 4 Pillars for which schools can develop successful strategies. Taken individually, each area has merit, but when all 4 Pillars are addressed, the ultimate goal of improving the learning environment can be achieved.

1. Health and Wellness
2. Indoor Air Quality
3. Cleaning and Maintenance
4. Pollution Prevention

I. Health & Wellness

Absenteeism due to illness can reach epidemic proportions during the cold and flu seasons.

Presenteeism was a term coined to define the presence of children at school when they are ill. With many parents both working full time and more single parent households, more children end up in school sick. This creates the opportunity for the further spread of germs and illness.

Hygiene Habits: Regular hand washing remains one of the keys to preventing the spread of illness. The problem is getting adults and children to routinely wash their hands. To be successful, easy access to soap and water or instant sanitizers is just a start. Education and motivational programs designed to help even the youngest of children are readily available for schools to utilize and follow. See resource B on page 5 or [click here](#).



Infection Control Program: An infection control program is a proactive program designed to minimize transmission of illness from one individual to the next.

The Centers for Disease Control has created a variety of tools for influenza prevention including guidance on how to clean and disinfect schools to prevent the flu. See resource D on page 5 or [click here](#).

You might be surprised to learn the teacher's desktop can be one of the most germ laden surfaces in the classroom. This is an example of a High Touch Surface, one that is frequently touched by many different people. A cleaning & disinfection program should focus on high touch surfaces.

High Touch Surfaces can be defined as surfaces frequently touched by multiple people. Examples include door knobs, desk, light switches, etc., are a source for spreading illness that could be addressed.

Green is Only a Beginning. Many schools have felt that by using green products, all that is needed to be done has been done to make schools healthier. The reality, using

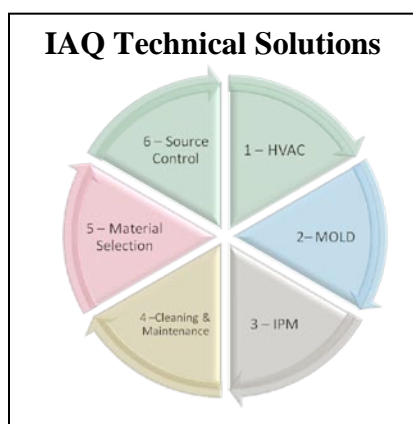
green products is only one small step in the right direction. Addressing all facets of building maintenance that can impact the indoor and outdoor environment is what is required.

To get started, a school should develop a Green Cleaning Policy that defines the commitment of school administration and staff and broadly outlines strategies for the green cleaning program. The Healthy Schools Campaign has examples of Green Cleaning Policies in the **Quick and Easy Guide to Green Cleaning**. See resource F on page 5 to learn more.

Occupant feedback is important. It is highly recommended to routinely send out surveys soliciting feedback as a way to assess what is working and what needs to be improved upon.

II. Indoor Air Quality

The EPA has estimated that nearly 50% of our public schools have had some issues related to poor indoor air quality. Asthma is a primary cause of school absenteeism, accounting for 14.7 million missed school days per year. Indoor Air Quality (IAQ) problems in schools persist -- the presence of mold, dust mites, cockroaches, pet dander, and certain chemicals can trigger asthma attacks and other illnesses.



To improve Indoor Air Quality, the EPA offers 6 Technical Solutions:

1. **HVAC** system, namely how air is exchanged and filtered through the facility. Proper maintenance and monitoring of this system.
2. Identify areas likely to promote **mold** growth and repairing/fixing the source.
3. **Integrated Pest Management** helps identify the source of pest and uses prevention strategies to limit use of pesticides.
4. **Cleaning and Maintenance** of facilities goes back to the green cleaning process.
5. **Material Selection** used in construction that have limited off gas potential.
6. **Source Control:** Using entrance matting and modifying cleaning frequencies based upon usage intensity. Proper types, amount and maintenance of walk off matting prevents dirt to be spread through the facility. More frequent

maintenance of areas closer to entries further prevents the intrusion of dirt in a facility and associated labor needed to remove it.

[Take the Test:](#) The CDC has developed an excellent self assessment checklist that helps identify specific areas to be addressed in an IAQ improvement program. See resource C on page 5.

The EPA has developed IAQ resources to help schools improve indoor air quality. The [EPA Tools for Schools](#) program is an excellent, comprehensive program designed to help schools improve IAQ.

III. Cleaning and Maintenance

The process of maintaining a facility is always a challenge. It often seems that other functions have a greater level of professionalism, training, and follow a more structured process. When it comes to cleaning, sometimes it is taken for granted that everyone knows how to clean. Formal training, a structured cleaning process, and accountability are required.

Key Points

Service Delivery Plan
Standard Operating Procedures
Work Orders / Custodial Checklists
Regular Inspections
Green Cleaning Policy
Entrance Matting
Green Chemicals, Supplies, Equipment

A service delivery plan states how staff will be deployed to clean and maintain the facility with greatest efficiency. Once this is accomplished, staff can be trained on standard operating procedures for each job function. Implementation involves the use of written work orders and/or custodial checklists to insure workers accountability for the tasks assigned to them. Finally,

regular inspections are needed to insure quality of work is necessary.

A green cleaning policy is a starting place for schools that want to make the green commitment. The policy is a broad brush stroke picture of the organization's intent for a green cleaning program, with general guidance on implementation and ongoing progress monitoring.

Once the policy is in place, assessing and adding appropriate matting at entrances is a great green cleaning preventive strategy. Next, adding green chemicals, tools and equipment, if not already being used is a logical progression.

IV. Pollution Prevention

Pollution prevention (P2) is reducing or eliminating waste at the source by modifying processes, promoting use of non-toxic or less-toxic substances, implementing conservation, and re-using materials rather than putting them into the waste stream.

Pollution Prevention Checklist

We all know about Reduce-Reuse-Recycle, but are we actively doing all we can? Look below to see if these basic areas are or can be addressed:

Item	Benefit
Waste Stream Audit	Identifies Wastes
Lighting Retrofit	Reduce Energy Use
Occupancy Sensors	Reduce Energy Use
Low Flow Toilets	Less Water
Waterless Urinals	Less Water
Energy Star Appliances	Reduce Energy Use
Recycling	Less trash
IPM	Reduced

SUMMARY

Although not comprehensive by any means, we hope this white paper fosters ideas on how any school or public facility can make

the indoor environment more productive for students, faculty and visitors.

Resources:

- A. **CDC Hand Hygiene webpage:**
<http://www.cdc.gov/handwashing/>
- B. **School Network for Absenteeism Prevention (SNAP): Hand Hygiene**
<http://www.itsasnap.org/snap/about.aspChecklist>
- C. **IAQ Self Inspection**
<http://www.cdc.gov/niosh/docs/2004-101/chklists/6indoo~1.htm>
- D. **CDC: How to Clean and Disinfect Schools to slow the spread of Flu**
http://www.cdc.gov/flu/pdf/freeresources/updated/cleaning_disinfecting_schools.pdf
- E. **EPA Tools for Schools:** A program for schools to improve Indoor Air Quality. <http://www.epa.gov/iaq/schools/>
- F. **Healthy Schools Campaign:** This advocacy group promotes healthier schools.
www.greencleanschools.org
www.healthyschoolscampaign.org
- G. **Multi-Clean** offers a variety of products and educational tools for schools. www.multi-clean.com

References:

1. EPA Tools for Schools Program "How Does Indoor Air Quality Impact Student Health and Academic Performance".
2. EPA Tools for Schools Program "Improved Academic Performance".
3. Healthy Schools Campaign "Quick and Easy Guide to Green Cleaning".



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