



# Guide to Green Cleaning: Practices and Products for Schools

Healthy Schools Network, Inc.

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[www.HealthySchools.org](http://www.HealthySchools.org) [www.CleaningforHealthySchools.org](http://www.CleaningforHealthySchools.org)



## THE CHALLENGES OF SCHOOL CLEANING

Schools are heavily used, densely occupied spaces. Twenty percent of the nation's population—more than 56 million children and seven million adults—are in 130,00 school buildings daily.

The combination of numerous occupants, lack of storage space, backlogged building repairs, materials and/or furnishings that harbor dust or require special cleaning, and maintenance staff cutbacks can be overwhelming for facility directors and facility personnel.

One result is that most schools use industrial-strength cleaning products and room deodorizers and overuse disinfectants. The ingredients in these products are linked to:

- ◆ new cases and exacerbations of asthma, and other breathing problems
- ◆ harm to the nervous system, reproductive organs, kidney, and liver
- ◆ eye irritation and headaches
- ◆ hormone disruption
- ◆ cancer

Due to many factors, including poor siting, design, ventilation, maintenance, and cleaning, EPA estimates that half of the nation's schools have indoor environmental quality problems. While schools should be cleaned more frequently and more effectively, the cleaning itself does not need to add to indoor pollution.

## CHILDREN ARE MORE VULNERABLE

### Extra risks from toxic chemicals:

This is because children's body systems are rapidly developing. This means that they are more sensitive to exposures because they cannot detoxify or process toxins as adults do. They also have greater exposures than adults because proportionally they breathe more air, eat more food, and drink more water than adults. They also play closer to the ground, have more hand-to-mouth activity, and are less able to identify and protect themselves from hazards (Academy of Pediatrics, US EPA, American Public Health Association, others).

And because these toxins affect their developing body systems, exposures and injuries can result in health impacts that last their entire lifetime.

### How children are exposed:

- ◆ **Inhalation:** Aerosols, vapors, fumes, or dusts can be inhaled.
- ◆ **Skin contact:** Residues from chemicals can damage the skin by burning skin tissue or by being absorbed through the skin and entering the bloodstream.
- ◆ **Ingestion:** Children can accidentally eat chemicals via hand-to-mouth contact or can drink chemicals in contaminated water or foods.



**Children should not use school cleaning products and should not use disinfecting wipes. Disinfectants are registered by US EPA as pesticides.**

**25% of chemicals in the cleaning products used in schools are toxic and contribute to poor indoor air quality, smog, cancer, asthma, and other diseases.**



Tests on various chemicals acting in combination with one another are practically non-existent. Despite this, a wide variety of toxic or hazardous products are routinely used for cleaning and maintaining schools, buildings in which the majority of occupants are children, packed closely together. Adult worker exposure limits are negotiated in a federal regulatory process. But new research on children and their vulnerability, on work-related asthma, and on the cost-effectiveness of green cleaning products, are strong reasons to adopt prevention practices.

### **PARENTS**

**When to suspect an environmental problem in your child's school:**

- ◆ Your child starts most days healthy but often develops health complaints during the school day/week
- ◆ Your child comes home from school sick, tired, itchy, or angry or has new rashes
- ◆ Your child uses more asthma medications on school days
- ◆ Your child shows new or worsening health or learning problems only on certain days or as the school heating season starts
- ◆ Your child comes home with odd odors clinging to his or her clothing
- ◆ **Ask your school if anyone else has complaints, and ask how it promotes a healthy indoor environment.**

### **SCHOOL OFFICIALS**

**Poor school indoor air quality has many negative consequences, including decreased attendance, achievement, and productivity.**

- ◆ Over **6 million** children under 18 have asthma, which causes over **14 million** missed school days each year.
- ◆ Research shows that new cases of and exacerbations of asthma lead to greater absenteeism, reduced productivity, and lower test scores among students.
- ◆ The bottom line: It is in the school's, the school district's, and the children's best interest to maximize your school's indoor air and environmental quality.
- ◆ **Always take the first health complaint or question seriously.**
- ◆ **Adopt a green cleaning program to help reduce sources of pollution indoors.**

## **Cleaning for Healthy Schools**

- ◆ Prevent dirt at the door - use walk-off mats
- ◆ Use **third-party certified** cleaning and paper products and hand soaps that have been evaluated as greener, healthier, and effective
- ◆ Cleaning with an all-purpose product removes most germs
- ◆ Disinfect only targeted areas, and when required
- ◆ Ban cleaning products brought from home
- ◆ Ban room fresheners, deodorizers, plug-ins; ban para-dichloro-benzene cake toilet deodorizers
- ◆ Update and maintain cleaning equipment
- ◆ Clean rooms from the top down (not bottom up)

**Breathe easy—clean doesn't have an odor!**

### **Elements of a Successful Program**

- ◆ Evaluate current cleaning problems and methods
- ◆ Inventory cleaning products and equipment
- ◆ **Phase in use of certified green cleaning products**
- ◆ Educate building occupants and the community on what to look for and how to help
- ◆ Create a school comment box for questions, problems, and information about the facility
- ◆ Train custodial staff
- ◆ Track success by tracking school nurse visits, worker health, cost savings.
- ◆ **Celebrate success!**
  - Reward staff
  - Promote to the community

**For free information, training, and tools, visit:**

**[www.CleaningforHealthySchools.org](http://www.CleaningforHealthySchools.org)**

- Presentation for communities
- Training modules for workers, administrators
- Approved list of green cleaning products
- Free color poster
- Inspection checklist
- Chemical inventory form
- Equipment inventory form



# Three Steps: Cleaning for Healthy Schools

## 1. Prevent dirt; use advanced cleaning methods

### Best Practices:

- ◆ Use walk-off mats at all entrances
- ◆ Ban pets and food from classrooms
- ◆ Keep walkways clean
- ◆ Keep recycling, trash, and dumpster areas clean and easily accessible
- ◆ Clean areas from the top down
- ◆ Replace PVC and VAT floor tiles with durable, environmentally preferable alternatives
- ◆ Clean up spills promptly and keep the building dry
- ◆ HEPA vacuum instead of dry mopping; use microfiber mops and rags
- ◆ Separate general cleaning from disinfecting
- ◆ Disinfect if required, target high-risk areas; use EPA-registered disinfectants (pesticides) only as directed.

### Tips:

- ◆ Use soap and water for hand washing, not sanitizers
- ◆ Use green-rated toilet paper and paper towels
- ◆ Clean out lockers and desks regularly
- ◆ Avoid classroom clutter and dust catchers
- ◆ Prohibit cleaning products, and used carpets and furnishings brought from home

### Good News on Cost from New York State

“Our experience from over three years of implementing the legislation that requires all schools in New York State to use environmentally sensitive, or “green”, cleaning products, is that they currently do not cost more than traditional cleaning products. In fact, our anecdotal evidence has shown that green cleaning products cost the same or less, and they work as effectively, as their traditional counterparts. .... As the green cleaning product market has expanded, more cleaning products and competition are available in the marketplace which will also impact costs.”

New York State Office of General Services  
Green Cleaning Program 2010

## 2. Use third-party certified green cleaning products

### Benefits of third-party certified products:

- ◆ Meet independent standards as safer for human health and the environment
- ◆ Meet standards for effective cleaning
- ◆ Are cost neutral and may save money
- ◆ Help reduce health risks and sources of indoor pollution

### Choosing Products:

- ◆ Less-toxic, effective cleaning products are readily available through most manufacturers and vendors
- ◆ Request, test, and choose only third-party certified green products
- ◆ **Caution: beware of false marketing claims**
- ◆ **See Consumer Reports’ *Greener Choices***  
[www.GreenerChoices.org](http://www.GreenerChoices.org)
- ◆ **NOTE:** EPA’s Design for Environment program provides technical assistance to corporations to improve chemical-intensive products. DfE is not a registered certification mark.



## 3. Update old or outdated equipment

- ◆ Use high-efficiency (HEPA) vacuum cleaners
  - ◇ HEPA-filtered vacuum cleaners help eliminate microscopic particles from the air
  - ◇ Visit the Carpet & Rug Institute for more information:  
[www.carpet-rug.org](http://www.carpet-rug.org)
- ◆ Use microfiber mops and wipes
- ◆ Use vacuum attachments for buffers/burnishers
- ◆ Install cleaning product dilution stations in custodial closets
  - ◇ Used for portion control
  - ◇ Reduces need for product storage space

## RECOMMENDED RESOURCES

- ◆ **Cleaning For Healthy Schools**  
<http://www.cleaningforhealthyschools.org>  
Free training toolkit, developed by public health and education groups, field tested with schools and child-care centers in ten states. Free poster and flyers.
- ◆ **New York State Green Cleaning Program**  
<https://greencleaning.ny.gov/>, first in the nation for state agencies and schools; list of approved products, training tools, more.
- ◆ **North American third-party eco-labelers**  
**Green Seal**  
<http://www.greenseal.org/>  
**EcoLogo**  
<http://www.environmentalchoice.com/>  
Also see “Sins of Greenwashing:” 2010 report and free poster
- ◆ **Responsible Purchasing Network**  
<http://www.responsiblepurchasing.org/>
- ◆ **National Association of State Purchasing Officials’ Green Guide**  
[http://www.naspo.org/content.cfm/id/Green\\_Guide](http://www.naspo.org/content.cfm/id/Green_Guide)
- ◆ **US EPA Healthy Schools Initiative**  
[www.epa.gov/schools](http://www.epa.gov/schools)

## TIPS FOR SUCCESS

### Product Vendors and Cleaning Services

#### FINDING AND TESTING GREEN PRODUCTS

Almost all product vendors now have active “green” product lines. Good vendors are reliable, deliver on time, supply free Material Safety Data Sheets, and provide free samples and training onsite.

Ask your cleaning product vendor to provide free on-site demonstrations of its third-party certified product line or advanced equipment. Try out different green products until you find one that workers like to use and that is effective in your school, just as you would with conventional products.

#### GREEN CLEANING SERVICES

It is better for buildings to have on-site custodians who can respond quickly to needs. However, if your school is considering outsourcing cleaning, then insist on a bid specification that identifies daily and weekly routines and that also states that the service itself must be third-party certified as green. Alternatively, at least specify that the service must use advanced equipment and third-party certified green cleansers, hand soaps, and paper products.

The Healthy Schools/ Healthy Kids Clearinghouse was created in 1996 to deliver *simple, technically accurate, widely-supported* and *consistent* directions to parents and others in the school community on how to improve schools and children’s health.

The Clearinghouse was honored to receive a  
2005 US EPA Office of Children’s Health Protection Recognition Award.



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