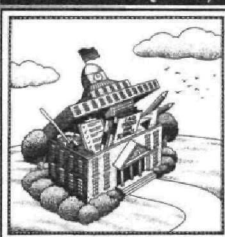


HEALTH PROFESSIONALS

Your Role on the Indoor Air Quality Action Team

Indoor Air Quality



Tools for Schools

"Every school [in the district] has a Healthy Schools Team dedicated to making the school safer and healthier.

The IAQ Tools for Schools checklists were very helpful; everyone uses them."

— Robin Chappell, District Health Official, Walpole, MA

Indoor Air Quality and Health

The air quality inside your school affects the health and comfort of every student and staff member. EPA's Science Advisory Board consistently ranks indoor air pollution among the top five environmental risks to public health. Poor indoor air quality (IAQ) is about more than just comfort. It can cause or contribute to short- and long-term health problems, including asthma, respiratory tract infection and disease, allergic reactions, headaches, nasal congestion, eye and skin irritations, coughing, sneezing, fatigue, dizziness, and nausea.

As a school-based health professional—district health officer, nurse, hygienist, or dietician—you are responsible for the health and well-being of staff and students. School nurses, in particular, can play a primary role in the early detection of an IAQ problem when seeing children who are sick. Illnesses due to poor indoor air quality may not, however, produce easily recognizable symptoms. If multiple pollutants are involved, tracing the causes of the student's discomfort or illness will be your challenge.

Improving indoor air quality can reduce the number of student visits to the nurse's office, reduce absenteeism due to illness, and enhance the general health and well-being of all students and staff.

Ensure the Good Health of the Students in Your Care

You can help the students you care for by using EPA's one-stop resource for your school building's health—the IAQ Tools for Schools Kit. The Kit gives your school a practical plan for protecting and improving indoor air and explains your role in the IAQ Action Team. Your input can help the team identify the sources and types of indoor pollutants. Specifically, the Kit features forms, checklists, and a problem-solving wheel for:

- Tracking health-related complaints of students and staff and identifying patterns.
- Incorporating sensitivities to IAQ problems into student health records.
- Educating the school population about indoor air quality and health.

The IAQ problem-solving wheel helps nurses link health symptoms with possible IAQ problems. The Kit also includes a manual, *Indoor Air Pollution: An Introduction for Health Professionals*, that provides an overview of acute conditions, patterns that point to particular pollutants, and suggestions for appropriate remedial action. The Kit's *Asthma Companion Piece* identifies environmental asthma triggers, showing how IAQ Tools for Schools can reduce them in your school.

**USE THE ENCLOSED CARD TO ORDER THE INDOOR AIR QUALITY TOOLS FOR SCHOOLS KIT TODAY
VISIT OUR WEB SITE AT www.epa.gov/iaq/schools**

INDOOR AIR QUALITY IN SCHOOLS

Maintaining good indoor air quality in your school means:

- Controlling airborne pollutants
- Bringing in and distributing adequate outside air
- Controlling moisture and mold
- Maintaining acceptable temperature and humidity

Sources of pollutants in and around schools:

INDOOR SOURCES

- Students and staff with communicable diseases
- Classroom pets
- Excess moisture and mold
- Dry-erase markers and similar pens
- Dust and chalk
- Cleaning materials
- Personal care products
- Odors and volatile organic compounds from paint, caulk, adhesives
- Insects and other pests
- Odors from trash
- Radon

Potential high-pollution areas

- Science laboratories
- Vocational arts areas
- Copy/print areas
- Smoking lounges
- Food preparation areas

OUTDOOR SOURCES

- Pollen, dust, and fungal spores carried in from outside on shoes and clothing
- Vehicle emissions or unsanitary debris near building air intakes
- Pesticides used on school grounds
- Dumpster odors
- Leakage from underground storage tanks

The Issues

Indoor levels of air pollutants can be 2-5 times higher, and occasionally 100 times higher, than outdoor levels. Nearly 55 million people, 20 percent of the U.S. population, spend their days inside elementary and secondary schools. And according to a 1995 federal government report, an estimated 50 percent of the nation's schools have problems linked to poor indoor air quality. IAQ problems can cause discomfort and contribute to short- and long-term health problems for students and staff.

The Solution

IAQ problems can be much less expensive and time-consuming to prevent than to fix. EPA's *IAQ Tools for Schools* Kit provides you with resources and checklists to help evaluate your school's indoor air quality and prevent IAQ problems. The Kit also offers easy-to-use steps for identifying and correcting current IAQ problems.

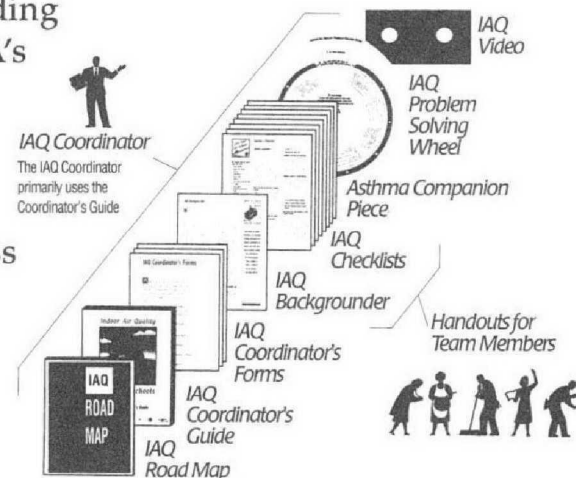
The Team

The awareness and effort of a team of individuals will help ensure that your school improves its indoor air quality. The checklists in the *IAQ Tools for Schools* Kit provide a thorough but simple means for all IAQ Action Team members to contribute, including the IAQ coordinator, administrators, teachers and staff, facility managers, health professionals, maintenance crews, and others.

The Rewards (in addition to good indoor air quality!)

By using the Kit successfully, your school will have the opportunity to:

- Receive public recognition for outstanding environmental leadership through EPA's Awards Program.
- Serve as a role model or mentor to other schools.
- Work with EPA to communicate success through case studies.
- Have its website link on EPA's IAQ page for other schools to learn from your IAQ efforts.



Order the *IAQ Tools for Schools* Kit today!

LOCAL BUSINESS & COMMUNITY SPONSORSHIP

Attracting Sponsors for Your IAQ Projects

Indoor Air Quality



Tools for Schools

Your school can take advantage of the skills and resources available in the local business community to help you create a healthy environment conducive to learning. Here's how.

Local businesses, associations, or non-profit organizations may be very interested in "adopting" your school or school district to support your indoor air quality (IAQ) programs. Many employees of these organizations will be particularly concerned about health issues because their children attend your schools. Local sponsors may provide, for example:

- Vacuum cleaners with high-efficiency filters.
- Air flow monitors.
- Equipment, books, and manuals for IAQ training.
- Volunteer engineers to help evaluate the indoor air quality of your school.
- Grant money to help fix IAQ problems or develop educational programs in your school.

How To Find Community Sponsors

Setting up and fostering productive relationships with businesses and associations in your community can be accomplished in many ways; here are a few ideas to get started. With your IAQ Action Team colleagues,

1. List all the people in the community that you know, or have heard about or read about, who are active in business, educational, or civic groups, such as:
 - Chamber of Commerce, Rotary, Kiwanis, and the like.
 - PTAs.
 - City Council Business Committees.
 - Other.
2. Obtain a list of local businesses and associations from the Yellow Pages or the Internet.
3. Cross-check your list of names (#1) with your list of businesses (#2) and develop a contact list.
4. Designate a dozen or so names as top priority contacts—the ones you and your colleagues believe will be enthusiastic about your projects. Call them to explain your interest in protecting children's health by improving IAQ in your community's schools.

(Continued on back)

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INDOOR AIR QUALITY IN SCHOOLS

5. From these calls, identify several "champions" (individuals or organizations) that will agree to network among their contacts for your school. Invite these champions to meet with your IAQ Action Team to learn about your projects. Your champions may become sponsors themselves.
6. Follow up with the champions to obtain names of other potential contacts.
7. If sponsors have not already emerged, continue to contact people on your original list until you identify several organizations interested in becoming IAQ sponsors.

Your School Benefits; So Does Your Sponsor

The President's Summit for America's Future in 1997, which called for corporations and community organizations to make a commitment to America's youth, has led to a rise in corporate volunteerism. These sponsors have found that by donating "time, talent and treasure" in the form of volunteers, equipment, or grants, they reap big dividends:

- Developing stronger bonds with their neighbors in the community.
- Investing in the future. Education is the key to the successful future of business and the nation's economy.
- Enhancing reputations as good citizens and environmental stewards.
- Receiving recognition from EPA and the community.

In addition, employees given the opportunity to volunteer in their children's schools develop stronger bonds with the community and their company.

Order the *IAQ Tools for Schools* Kit today!

TEACHERS, STAFF, AND PARENTS

Your Role on the Indoor Air Quality Action Team

Indoor Air Quality



Tools for Schools

"It is time that we enriched our students curriculum by adding to the 3 R's. Let us add the letters IAQ (Indoor Air Quality) to improve the quality of our children's education."

— Frank Czapla, Jr., Business Education Teacher,
Greater Nanticoke Area High School, Nanticoke, PA

Poor Indoor Air Quality Interferes with the Learning Environment

Indoor air pollution is a problem in at least half of our nation's schools—in classrooms and other learning areas such as laboratories, libraries, and gymnasiums. Poor indoor air quality (IAQ) affects your students' and your own health and comfort in the following ways:

- Uncomfortable, unhealthy students can be distracted and inattentive. Their concentration and productivity suffer, which may affect their performance.
- Students with asthma or allergies are particularly sensitive to indoor air pollutants, resulting in increased or more severe reactions and episodes.
- Sickness and absenteeism rise. Absent students miss out on valuable learning experiences.
- Your energy levels and performance suffer because of sickness and absenteeism.

The good news is that indoor air pollution is preventable! You can help ensure that classrooms are healthy learning environments, and your students and their parents will be thankful for your effort.

Ensure a Healthy Classroom for Everyone

EPA's *IAQ Tools for Schools* Kit gives your school common-sense guidance on IAQ issues. This practical Kit explains how to identify and prevent IAQ problems and how to resolve them if they occur. As a member of your school's IAQ Action Team, you are key to making sure that your classroom is a healthy, comfortable learning space for your students and yourself.

The *IAQ Tools for Schools* Kit is a one-stop resource for your school building's health. The Kit includes a teacher's checklist covering indoor air quality basics related to classroom chalk dust and dry-erase markers, animals in the classroom, art and science supplies, cleaning supplies, ventilation, and classroom drains, fans, or fume hoods.

Other team members have their own checklists; together, you evaluate potential IAQ problems and resolve them before they become health hazards. Because you're part of a team, this won't take much of your time. In the process, your students can learn about good indoor air quality. For science teachers, EPA's web site offers ideas for adding IAQ to your curriculum.

Act now to ensure comfort, health, and reduced sick days for your students. Help lower the risk of long-term health problems related to indoor air quality in your school.

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INDOOR AIR QUALITY IN SCHOOLS

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Sources of pollutants in and around schools:

INDOOR SOURCES

- Students and staff with communicable diseases
- Classroom pets
- Excess moisture and mold
- Dry-erase markers and similar pens
- Dust and chalk
- Cleaning materials
- Personal care products
- Odors and volatile organic compounds from paint, caulk, adhesives
- Insects and other pests
- Odors from trash
- Radon

Potential high-pollution areas

- Science laboratories
- Vocational arts areas
- Copy/print areas
- Smoking lounges
- Food preparation areas

OUTDOOR SOURCES

- Pollen, dust, and fungal spores carried in from outside on shoes and clothing
- Vehicle emissions or unsanitary debris near building air intakes
- Pesticides used on school grounds
- Dumpster odors
- Leakage from underground storage tanks

The Issues

Indoor levels of air pollutants can be 2-5 times higher, and occasionally 100 times higher, than outdoor levels. Nearly 55 million people, 20 percent of the U.S. population, spend their days inside elementary and secondary schools. And according to a 1995 federal government report, an estimated 50 percent of the nation's schools have problems linked to poor indoor air quality. IAQ problems can cause discomfort and contribute to short- and long-term health problems for students and staff.

The Solution

IAQ problems can be much less expensive and time-consuming to prevent than to fix. EPA's *IAQ Tools for Schools* Kit provides you with resources and checklists to help evaluate your school's indoor air quality and prevent IAQ problems. The Kit also offers easy-to-use steps for identifying and correcting current IAQ problems.

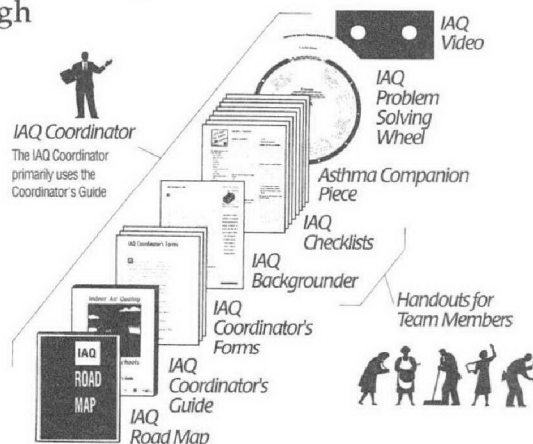
The Team

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The Rewards (in addition to good indoor air quality!)

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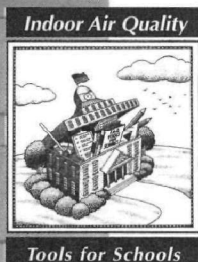
- Receive public recognition for outstanding environmental leadership through EPA's Awards Program.
- Serve as a role model or mentor to other schools.
- Work with EPA to communicate success through case studies.
- Have its website link on EPA's IAQ page for other schools to learn from your IAQ efforts.



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ADMINISTRATORS AND SCHOOL BOARDS

Your Role on the Indoor Air Quality Action Team



An EPA economic analysis of repairs performed at an elementary school showed that if \$370 per year over 22 years (a total of \$8,140) had been spent on preventive maintenance, \$1.5 million in repairs could have been avoided.

— EPA Indoor Environments Division

A Healthy Indoor Environment is Essential for Your School(s)

Your staff and students deserve a healthy indoor environment that is conducive to teaching and learning. Yet indoor levels of air pollutants may be 2-5 times higher, and occasionally 100 times higher, than outdoor levels. Poor indoor air quality (IAQ) can cause headaches, fatigue, sinus congestion, coughing, and sneezing; it can promote the spread of airborne infectious diseases. Indoor pollutants can be particularly harmful to students with allergies or asthma.

Failing to address poor indoor air quality can ...

- Result in an unfavorable learning environment for students, reduce the performance and effectiveness of teachers and staff, and increase absenteeism.
- Generate negative publicity damaging to the school's and administration's image and effectiveness.
- Strain relationships among parents, teachers, and the school administration.
- Create liability problems.
- Accelerate the deterioration and reduce the efficiency of the school's physical plant and equipment.

It costs less to prevent IAQ problems or correct potential problems now than it will to fix them later when they are more serious.

EPA's IAQ Tools for Schools Kit Provides Guidance

The *IAQ Tools for Schools* Kit provides common-sense guidance to help your school prevent and solve most indoor air quality problems with little cost and minimal effort from school staff. The highest levels of school administration must, however, be committed to indoor air quality and take the lead. This starts with identifying and empowering an IAQ Coordinator in each school or at the district level—often the facilities manager, principal, or vice principal—to organize your school's IAQ efforts.

Empower and be part of your school's IAQ Action Team. Draw on your contacts in the community to identify local business and community sponsors for your school's IAQ campaign. See the Community Sponsorship insert for more information.

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Potential high-pollution areas

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- Vocational arts areas
- Copy/print areas
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- Food preparation areas

OUTDOOR SOURCES

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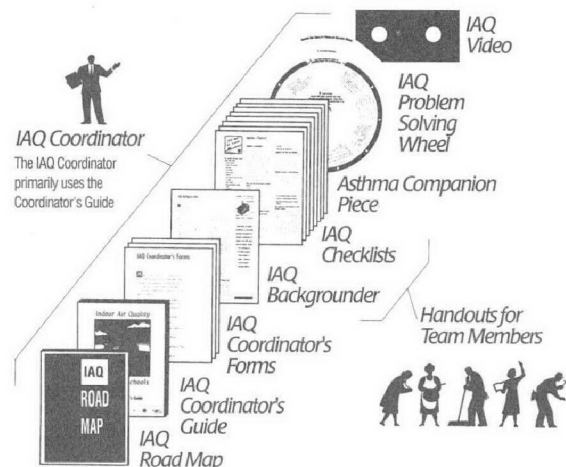
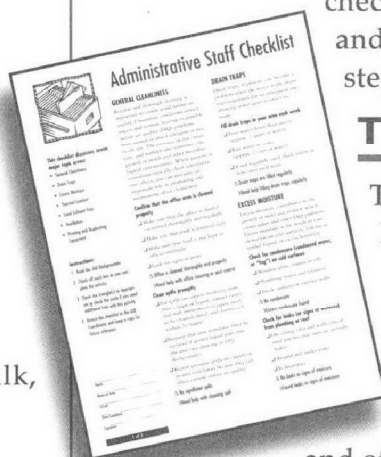
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The Rewards (in addition to good indoor air quality!)

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FACILITY MANAGERS

Your Role on the Indoor Air Quality Action Team

Indoor Air Quality



Tools for Schools

"The IAQ Tools for Schools surveys and checklists were the most helpful. We sent them to each staff member and developed a database of comments and actions taken to fix the problem. The Kit opened the lines of communication and allowed for the administrative staff to be made more aware of IAQ issues."

— Doug Renkosik, Facilities Manager, Plainfield Elementary School, Des Plaines, IL

FOR FACILITY MANAGERS, THE IAQ TOOLS FOR SCHOOLS KIT INCLUDES A . . .

Ventilation Checklist

- Outdoor air intakes, air distribution, adequacy of outdoor air supply
- Exhaust systems
- System cleanliness
- System controls

Building Maintenance Checklist

- Maintenance supplies
- Dust control
- Drain traps
- Moisture, leaks, spills
- Combustion appliances
- Pest control

Renovation and Repairs Checklist

- General repairs
- Painting, flooring, roofing

Waste Management Checklist

- Food waste
- Recycling bins
- Dumpsters
- Waste containers

Create a Healthy Indoor Environment

Facility Managers in K-12 schools work hard every day to ensure a healthy, high-quality learning and teaching environment for students and staff. Your goal is to provide energy-efficient facilities that have quality lighting, comfortable temperature, and good indoor air quality (IAQ)—all within a tight budget.

EPA's IAQ Tools for Schools Kit is designed to provide you with the tools and information needed to fix and prevent IAQ problems and maintain a healthy indoor environment with minimal effort and cost.

The IAQ Tools for Schools Kit helps your school develop a comprehensive IAQ management plan. With its checklists for teachers, administrators, facilities staff, health professionals, and others, the Kit provides step-by-step practical guidance for sharing IAQ duties. Taking a proactive approach to preventing IAQ problems before they occur will save your school significant costs in the long run. Everyone working together may also allow you to reduce the amount of time you currently spend on IAQ issues.

Poor IAQ can . . .

- Accelerate deterioration and reduce efficiency of the school's physical plant and equipment.
- Affect student comfort, the learning environment, and attendance.
- Increase the likelihood that schools will have to be closed.
- Cost less if prevented; cost significantly more if deferred.
- Reduce the productivity of teachers and staff due to discomfort, sickness, or absenteeism.
- Increase the potential for long-term health problems for students and staff.
- Strain the relationship between administrators and facilities staff.

The IAQ Tools for Schools Kit should be an essential part of every Facility Manager's library, serving as a daily reference guide and management tool.

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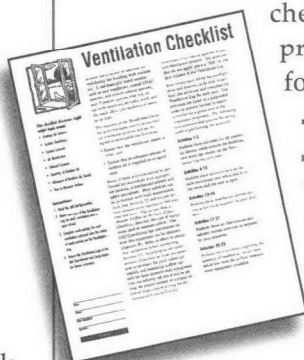
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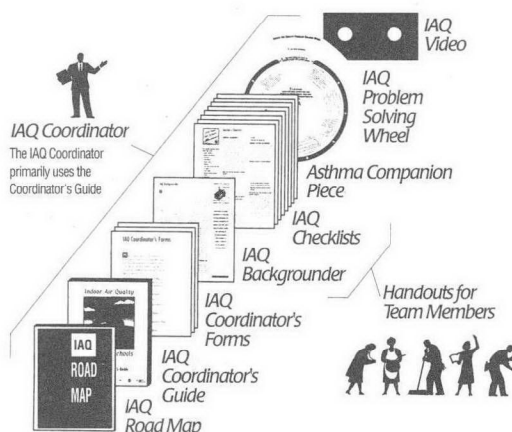
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