


 **Healthy Schools 101:**
Getting Started with the
IAQ Tools for Schools Program





**10th Annual IAQ Tools for Schools
National Symposium
January 14-16, 2010**

 Indoor Air Quality (IAQ)

 **IAQ Tools for Schools 101**


- Welcome
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 Indoor Air Quality (IAQ)

 **A New Issue ... huh?**


In the construction of buildings, whether for public purposes or as dwellings, care should be taken to provide good ventilation and plenty of sunlight. ... school rooms are often faulty in this respect. Neglect of proper ventilation is responsible for much of the drowsiness and dullness that ... make the teacher's work toilsome and ineffective.


Health Reformer, 1871

 Indoor Air Quality (IAQ)


 **Scope of the Problem**


- **IAQ problems are widespread.**
 - ❖ Poor IAQ - major health, performance & facility maintenance issue
 - ❖ Mold, asthma triggers, chemicals, ventilation issues
 - ❖ Asthma is the leading cause of school absenteeism (chronic condition)
 - ❖ Asthma accounts for 14,000,000 missed school days per year.
- **75% of schools spend money on repairs, renovations, and modernizations** *Source: U.S. Department of Education National Center for Education Statistics. "Condition of America's Public School Facilities." 1999 Report.*
- **The average public school building is 42 years old**
Source: U.S. DOE 1998 Report.

 Indoor Air Quality (IAQ)


 **Key Facts about Schools**

- **Why Schools are Unique**
 - ❖ Tight Budgets
 - ❖ Old Buildings/Deferred Maintenance
 - ❖ Densely Populated Space
 - ❖ Special Sources of Pollution
- **Consequences of Poor IAQ in Schools**
 - ❖ Health Problems
 - ❖ Student & Teacher Performance
 - ❖ Loss of Public Trust
 - ❖ Negative Media Coverage
- **Poor IAQ in Schools is Costly**
 - ❖ Liability and Law Suits
 - ❖ Substitute Teachers & Staff
 - ❖ Lower Operating Efficiency of Equipment & Physical Plant
 - ❖ Closing Schools and Relocating Students

 Indoor Air Quality (IAQ)

 **EPA Involvement w/ IAQ in Schools**


- 1995: GAO Report found over half of nation's schools had problems that impact IAQ
 - Increasing frequency of IAQ complaints in schools
 - EPA launches *Indoor Air Quality Tools for Schools (IAQ TJS)* program.
- IAQ TJS is consistent with EPA's mission to protect human health and the environment
 - People spend 90% of their time indoors. (children – schools)
- IAQ TJS is a voluntary, flexible, hands-on program
 - Designed to help schools identify, solve and prevent IAQ problems in schools by adopting effective IAQ management practices.
- A central element of the Program is the IAQ TJS Action Kit
 - Promotes good IAQ management practices
 - reduce exposure to indoor environmental contaminants (chemicals, irritants, allergens, and even carcinogens like radon)
 - improve the health and performance of children and staff

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IAQ Tools for Schools Action Kit


- Low Cost
- Adaptable to Individual School/School District Needs
- No Specialized Training Required
- Voluntary
- Common Sense Approach



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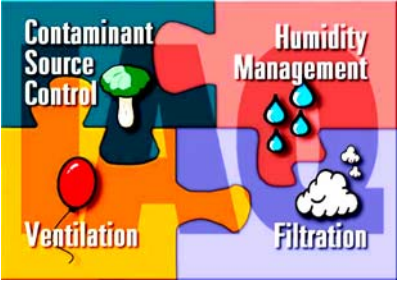
Framework for Effective School IAQ Programs



Indoor Air Quality (IAQ)

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Fundamental Elements of Indoor Air Quality (IAQ)



Indoor Air Quality (IAQ)

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There are two sides to IAQ "coin"

District	School Occupants
<ul style="list-style-type: none"> • Building structure • Ventilation • Landscaping / pest control • Etc. 	<ul style="list-style-type: none"> • Art & science materials • Household cleaners • Personal care products • Activities, awareness, etc.

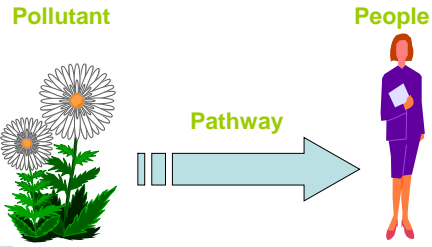
Communication



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IAQ Problems...

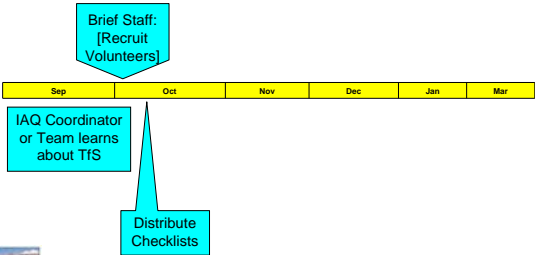


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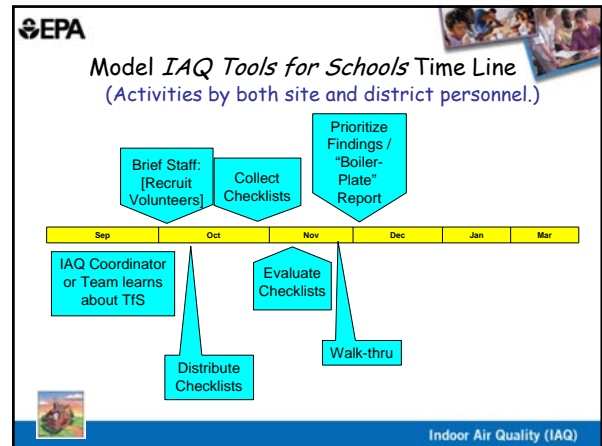
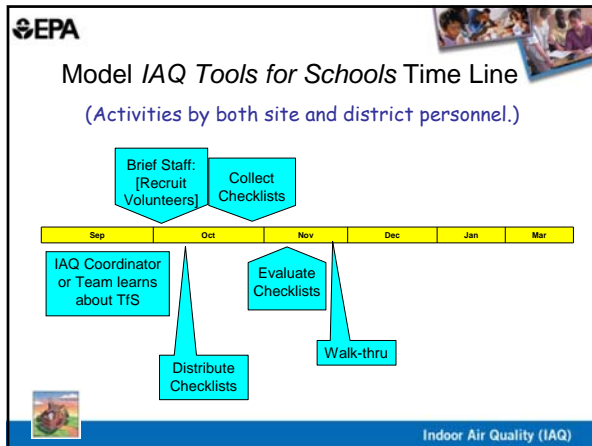
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Model IAQ Tools for Schools Time Line

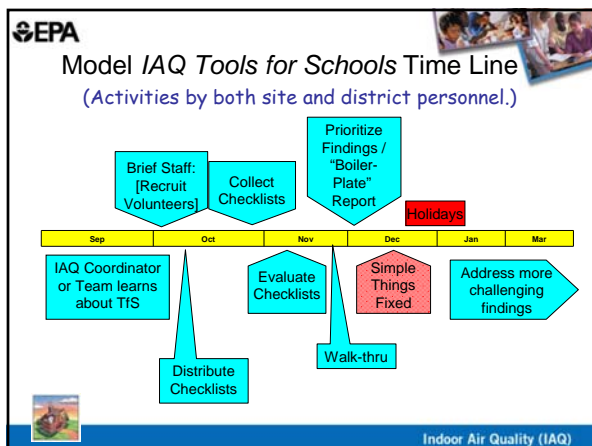
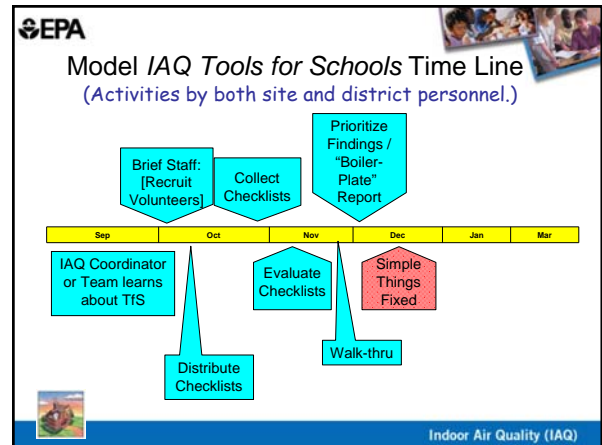
(Activities by both site and district personnel.)





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- EPA**
- ### Priority Scheme
- 1st Group - Immediately important for health or safety OR no cost/low cost
 - 2nd Group - Takes time and money – allocate funding from existing school budget
 - 3rd Group - **WISH LIST** – recommend to school board
- Indoor Air Quality (IAQ)




- EPA**
- ### Think Positively!
- Be proactive!
 - Start discussions to improve your indoor environment
 - IAQ contact person for your school(s)
 - Form a group – learn, educate others, help them help you
 - Everyone can do this – its not hard
 - If you don't do it – who will?
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Thank you!



Indoor Air Quality (IAQ)

Baltimore County Public Schools


District Location: Baltimore County, MD
 District Type: Suburban
 Student Population: about 105,000
 Number of Facilities: 171 schools, centers and programs
 Facility Age Range: New – 100 years
 Total Facility Square Footage: 15.7 million



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Baltimore County Public Schools IAQ Program Highlights


- All building construction and air handling renovations will utilize recognized standards for providing good IAQ
- Proper maintenance of buildings and systems to ensure good IAQ
- Monitoring building IAQ through
 - site based *TfS* teams
 - Professional audits
 - Environmental Action Team
- Process for reporting concerns
- Protocol for investigation and reporting of concerns and resolutions



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Baltimore County Public Schools Getting Started


- Baltimore County Council passed a resolution requesting the system to evaluate IAQ
- Advisory Committee made recommendations (including *Tools for Schools*)
- Written IAQ Program developed and implemented
- Pilot Program of 40 schools trained to implement *TfS*
- Remaining schools added to the *TfS* program, 40 per year



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Baltimore County Public Schools Challenges

- Buy in from school based administrators
- Annual program continuation
- Central Maintenance of Documentation
- Overzealous staff members




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Baltimore County Public Schools Actions to Overcome

What actions did you take to overcome these challenges?

- Personal contact by *TfS* Program Manager
- System of reminders and personal contact by *TfS* Program Manager



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Baltimore County Public Schools
Using the IAQ TFS Action Kit

- Kit is provided to each school through the Team Coordinator
- Most useful tools are highlighted during the Coordinator training session
- Provide a modified checklist that is mandatory for our reporting process.
- Discourage the use of the "Problem Solving Wheel" BCPS has a professional staff to address the issues addressed on the wheel.



IAQ TFS
Action Program

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Baltimore County Public Schools
Getting the Most Out of Your Time Here

**My strategy for getting the most out of
the IAQ TFS Symposium is to...**

- Network with other districts with similar issues
- See what new issues may be on the horizon
- Evaluate the information being presented by the experts
- See what strategies are effective for other districts that can be taken back to BCPS



IAQ TFS
Action Program

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