

Indoor Air Quality Section



Step 2 -- Green & Healthy Schools Assessment



Most people know that outdoor air pollution can damage their health, but many do not know that indoor air pollution can also have harmful effects. Good indoor air reduces triggers for allergies and asthma, which contributes to a favorable learning environment. This section will help your school identify practices that impact indoor air quality and start you thinking about how you can modify these practices to improve it.

School Name: _____ **Date:** _____

Conducted By:

Please include administrators, teachers, school staff, students and parents involved in this assessment.

Name:	Title and/or Grade Level:
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

School Population:

Students: _____ Staff: _____

Most of the Green & Healthy School assessment sections are designed so students can do the majority of the investigations with some help from teachers and staff. Due to the technical nature of maintaining heating, ventilation and air conditioning systems (HVAC) and the location of building components, school building engineers or maintenance staff may have to do the bulk of this section.

A. General Indoor Air Quality Information

- | | <u>YES</u> | <u>NO</u> |
|--|--------------------------|--------------------------|
| 1. Does your school have an indoor air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Does your school have a medical emergency plan that includes asthma/allergies? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Does your school/district have a policy addressing student self-medication? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Are students with asthma allowed to carry and use their rescue inhalers? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Does the school provide staff development for dealing with asthma/allergies? | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Are your school vehicles, buildings and grounds "Smoke Free"? | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Does your school have a regular cleaning schedule, and is it followed? | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Is indoor air quality or information on asthma/allergies included in the curriculum?
If yes, at what grades, and in what subjects, is it included? | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Have regularly occupied (45 minutes/day or more) spaces at or below ground level been tested for radon?
If a radon problem existed, have appropriate corrective measures been taken? | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Have areas containing asbestos been identified and has asbestos been properly removed or contained? | <input type="checkbox"/> | <input type="checkbox"/> |

B. Indoor Air Quality Checklists

The following walk-through checklists (pages 3-5) are adapted from EPA's *Indoor Air Quality Tools for Schools*. They will give you a quick overview of conditions that affect the quality of air within your school. Use your senses of sight, smell, touch and hearing while doing your walk-through. You may want to refer to the *Indoor Air Quality Tools for Schools Kit* (<http://www.epa.gov/iaq/schools/actionkit.html>) for some helpful hints.

C. Action Plan

Based on the information you gathered from this assessment, what recommendations do you have for the school to improve its chemical management program? Use the chart on page 6 to brainstorm and organize ideas for action.

Indoor Inspection of Classrooms, Hallways, Offices, Staff Lounge, Auditorium and Gym

Indoor Air Quality Checklist

Make a copy and complete this checklist for each of the following rooms/areas: classrooms, offices, hallways, staff lounge, auditorium and gym.

Room #/Name: _____	Date of Assessment: _____		
	YES	NO	Observation
Is the temperature within acceptable ranges for the season (68°-78°F)?			
Is the relative humidity within acceptable ranges (33-55%)?			
Is the air exchange adequate?			
Are air supply and exhaust vents clear?			
Is area generally free from odors?			
Are there signs of ongoing water damage?			
Are there signs of mold or mildew?			
Is the area clean and relatively dust free?			
Is the area free of pests or any signs of them?			
Is there any sign of food or food waste lying around?			
Are trash cans emptied daily?			
Are chemicals and art supplies stored and handled in such way to reduce fumes?*			
If there are animals in the classroom: <ul style="list-style-type: none"> ▪ Are cages cleaned regularly and waste disposed of regularly? ▪ Is animal food stored in tightly sealed containers? 			
Are teachers and staff aware of students' asthma/allergies?			
Do occupants report health concerns?			
Is the paint peeling or flaking?**			
Do you have any other observations?			

* Under fume hood or tightly capped during storage.

**If your school was built before 1978, you may have a lead paint issue.

Indoor Inspection of Bathrooms, Locker Rooms, Plumbing/Utility Room, Janitorial Supply Closets, Kitchen and Furnace Room

Indoor Air Quality Checklist

Make a copy and complete this checklist for each of the following rooms/areas: bathrooms, locker rooms, plumbing or utility room, janitorial supply closets, kitchens and the furnace room.

Only Part 1 of the checklist has to be completed for bathrooms, locker rooms and plumbing/utility rooms. Both Parts 1 and 2 of the checklist should be completed for kitchens and the furnace room.

Room #/Name: _____		Date of Assessment: _____	
Part 1	YES	NO	Observation
Do rooms have operating exhaust fans?			
▪ If yes, are the fans clean?			
Do all drains have traps?			
Are all drain traps filled with water?			
Are any of the water faucets or pipes leaking?*			
Are there any signs of ongoing water damage?			
Are there signs of mold or mildew?			
Are odorous or "hazardous" house cleaning chemicals used with adequate ventilation and/or only when school is unoccupied?			
Is the paint flaking or peeling?			
Part 2	YES	NO	Observation
Are combustion gas or fuel odors present?			
Do appliances have flues (furnaces, water heaters, etc.) or exhaust hoods (kitchen ranges, dishwashers, etc.)?			
Are all flue components free from leaks, disconnections and deterioration?			
Is soot or grease noticeable on outside of flue or vent?			
Are exhaust fans being used when appliances are in operation?			
Are exhaust vents and filters clean?			

* See the Green & Healthy Schools Water Assessment for more information.

Outdoor Inspection

Air Quality Checklist

Inspect outdoor areas of school grounds and complete checklist.

Date of Assessment: _____			
Air Intakes	YES	NO	Observation
Are ventilation units on? <ul style="list-style-type: none"> ▪ If yes, is air flowing into the outdoor air intake? 			
Are outdoor air intakes free from blockage or obstruction?			
Are bird or animal droppings near air intakes?			
Are sources of vehicle exhaust accumulation (parking, loading docks, bus loading, etc.) located near or upwind of air intakes?			
Does painting, roofing or maintenance of exterior building take place in the vicinity of air intakes when school is occupied?			
Are plumbing stacks at least 10 feet away from air intakes?			
Ground Level	YES	NO	Observation
Are vehicles adjacent to the building allowed to idle for longer than 3 minutes?			
Are garbage dumpsters located near air intakes or windows and doors that are frequently open?			
Are other potential sources of air contamination (chimneys, stacks, industry) located near the building?			
Does the area around the building have good site drainage?			
Do sprinklers over spray the building and air intakes or allow water to pool near the building?			
Do all entrances have clean "walk-off" mats to collect shoe dust and dirt?			
Is paint outside peeling or flaking?			
Roof	YES	NO	Observation
Is the roof in good repair?			
Is there evidence of water pooling on the roof?			
Are exhaust fans operating and air flowing out?			
Is there any evidence of bird or animal nests or droppings?			
Do you have any other observations?			

Indoor Air Quality Assessment: Ideas for Action

Based on the information you gathered from the Indoor Air Quality Assessment, what action ideas do you have to improve the air quality in and around your school? Use this sheet to record your ideas.

Section	General Ideas	Classroom Connections/ Lesson Plan Ideas	Community Involvement/ Activity Ideas	Outside Sources (organizations, community members, professionals)
A. General Indoor Air Quality Information				
B. Indoor Air Quality Checklists				