

Green Flag Level Two Survey: Indoor Air Quality Program

You have chosen to work on the Indoor Air Quality (IAQ) program to earn a Green Flag award. Answering these survey questions will take you on a tour of your school and you will become a Detective. Be investigative, and leave no stone unturned, in your quest to understand the many things in your school environment that affect the air you breathe.

Remember that the IAQ portion of your level one survey may have some of the answers you need for level two, so please refer to level one when the questions overlap.

To start with, draw or get a rough floor plan of your school, including the basement if applicable. This will serve as your IAQ map. Include all rooms, corridors and open spaces. As you discover anything listed in the survey, such as missing ceiling tiles, or stains on carpets, mark an "X" on your map to identify the location. You may want to use different colors to indicate different problems, e.g. red for stained tiles, blue for water leak, and include a key on your floor plan. If possible, it may help to record signs of damage with a photograph, which can provide evidence towards having repairs made or fixing a problem.

Cleaning and maintenance are very important parts of maintaining good IAQ. When answering the questions in this section, it is important to work with your school's principal, facility and or maintenance staff. Ideally, you should have a custodian or facilities manager assist your Green Flag team in compiling the answers to these survey questions. (Attach additional sheets if needed.)

Also, please be aware that pesticides, cleaning products and other materials containing toxic chemicals have health effects that are worsened by poor indoor air quality. Please see the Integrated Pest Management and Non-Toxic Product level two surveys and resource sheets in the Green Flag Program Guide or at <http://www.greenflagschools.org/> to learn more about how toxic chemicals can be reduced in your school.

Information About Your School

Name of Your School: _____

School Address: _____

City: _____ State: _____ Zip: _____

Survey Date: _____

INTRODUCTORY QUESTIONS ABOUT THE SCHOOL

1. How old is your school? _____
2. Has your school built any additions since the original building was built? Yes No
3. If yes, when were the additions built?

Location of addition	Date of construction
_____	_____
_____	_____

4. Does your school have portable classrooms? Yes No

4a. If so, how many? _____

4b. What grades/ needs do the portable classrooms serve? grade: _____ use _____
grade: _____ use _____
grade _____ use _____

5. Are there windows in your school that cannot be opened for reasons of energy conservation, safety, or are painted shut or nailed shut? Yes No

5.a Please list location of windows and reason they're inoperable.

6. Are there any basement classrooms in your school? Yes No

6.a If so, how many classrooms? _____

CEILINGS:

1. Are all the ceiling tiles present? Yes No (*IAQ connection: Open spaces in the ceiling can allow air that has possibly been polluted from attics or unused spaces above to filter down into ground level. Ceiling tiles are also indicators of leaking water and should be reported so the leak can be fixed.*) 1a. Where are the missing ceiling tiles? Describe the missing tiles' location here and mark them on your school floor plan.

2. Are there any broken tiles? Yes No (*IAQ connection: Broken tiles can release debris and fine particles from the tiles themselves. These particles can get into the air you breathe.*)
2a. Where are the broken ceiling tiles? List the location here and mark it on your school floor plan.

3. Are there any water stained tiles? Yes No (*IAQ connection: Tiles stained by water can often point to a leak or a condensation problem, both of which can result in mold growth. Mold produces allergic reaction in some people.*)
3a. Where are the stained ceiling tiles? List the location here and mark it on your school floor plan.

4. If your ceilings do not have tiles but are another material such as plaster, are there signs of water damage, which would be indicated by moisture, cracks, or stains in the ceiling and, if it is painted, is the paint peeling or flaking? Yes No (*See IAQ connection #3. Mold needs water to grow and can grow on plaster surfaces.*)

4a. Where are the cracks and damage in the plaster? List the location here and mark it on your school floor plan.

5. Do the ceiling vents appear clean (there's no dust, dirt, mold) and are they unblocked by items hung from the ceiling? Yes No *(IAQ connection: If vents are dirty, they will circulate dust particles into the air you breathe. If they're blocked, air will not be able to flow freely.)*

5a. If there are dirty or blocked vents, list the location here and mark it on your school floor plan.

Material hung from ceiling:

Location:

Dirty vents:

Location:

WALLS

1. Do the walls show any signs of water damage, discoloration, mold, or paint irregularities? Are walls damp to the touch? Yes No *(see IAQ connection #3 for ceilings. Mold needs water to grow and can grow on plaster or dry wall surfaces.)*

1a. Describe the location of water damage and mark it on your school floor plan.

2. Do baseboards have any gaps where wall and floor join? Yes No

(IAQ connection: Gaps are potential entryways for insects and a reservoir for dirt. Pesticides used to control insects pollute the air and dust and dirt are contaminants that make breathing more difficult. See IPM surveys and resource packet for more information.)

2a. Describe the location of the gaps and mark it on your school floor plan.

3. If there are wall vents, is there anything in front of them, such as bookshelves, boxes, or furniture, which obstructs airflow? Yes No *(IAQ connection: If vents are dirty they will continue to circulate this debris into the air you breathe. If they're blocked, air will not be able to circulate.)*

3a. Describe the blockage and mark it on your school floor plan.

4. Are there any empty spaces or physical gaps around doors? Yes No (*IAQ connection: See Walls question #2.*)

4a. Describe where the gaps are and mark it on your school floor plan.

5. Are all Exit doors lighted, unlocked and operable? Yes No (*IAQ connection: If safety permit, opening, doors can be a great way to get some instant fresh air.*)

5a. Note the location of locked or inoperable exit doors:

FLOORS

1. Can you find any paint chips or fine paint dust around windows, windowsills, stairwells, and/or doors? Yes No

(IAQ connection: While breathing in lead dust is not a widespread problem, it is a very dangerous material. If your school was built in 1979 or earlier, paint used at the time often contained lead. Lead dust can be produced by friction, and if swallowed or inhaled can lead to very serious health problems. If you discover anything you think may contain lead, do not touch it, but do mark it down on your map and tell a teacher or adult Green Flag team member. See EPA Tools for Schools IAQ Coordinator's Guide p. 54. See also the link to NRDC website on lead paint in schools included in IAQ resource packet: Lead Paint in Schools <http://www.nrdc.org/health/kids/gleadsch.asp>.)

1a. Describe the location of paint chips or dust and mark it on your school floor plan.

2. Is there any sign of water entry on the floor by the outside exits or around windows? Yes No

(IAQ connection: See Ceiling question #3 in relation to water damage.)

2a. Describe the location of water entry and mark it on your school floor plan.

3. Is your school carpeted? Yes No

Note location of carpet (eg: classrooms, library, halls etc.).

Can you find any stains on the carpet or areas of carpet that smell moldy or dirty? *(IAQ connection: When it is wet, carpet can become moldy and a place where bacteria grows.)*

3a. Identify carpets located near water sources, note if it is wet and mark it on your school floor plan.

4. Are all floor coverings secure in place and not loose (tiles, carpets, wood board, etc)? Yes No
(IAQ connections: Loose floor coverings can be a place for dirt and debris to collect, which gets into the air when people walk by. Important: tiles installed in schools before the late 1970s may contain asbestos. Asbestos was once commonly used, but is now known to cause serious health problems when it frays into small particles that can enter into your body.)

4a. Describe the location of loose floor covering and note if they are dirty or dusty, and mark it on your school floor plan.

PLUMBING FIXTURES

1. Are all sinks and fountains in working order? Do they drain quickly and are they without leaks? Yes No

(IAQ connection: See Ceiling question #3 in relation to water damage.)

1a. Describe the location of the sinks. Note if the area is wet and mark it on your school floor plan.

2. Is there any standing water in sinks, fountains, or on counter tops? Yes No

(IAQ connection: see Ceiling question #3 in relation to water damage)

2a. Describe the location of standing water, and mark it on your school floor plan.

VENTILATION AND TEMPERATURE

1. What temperature and humidity are classrooms generally maintained at?

(IAQ connection: Heat and humidity should be maintained at comfortable levels to ensure health and safety. Extreme levels of heat and humidity can encourage mold and mildew growth.)

Record actual levels of humidity and temperature and (if available) the ideal level that your school wants to maintain. If you're school does not have a humidistat, (a device that records humidity) you can contact your building manager, school district facility manager or local health department to see if they can measure the humidity for you. If there are seasonal variations in temperature or humidity that school maintains during especially hot or cold months you may record these in the remaining columns.

	Temperature	Humidity
Actual		
Normal		
Normal: colder months		
Normal warmer months		

2. Are any parts of the school noticeably cooler or hotter than others? Yes No
(IAQ connection: Variations in temperature can cause health problems and create conditions to that promote mold and mildew growth.)

2a. Select four different rooms in your school and record the temperature and humidity in each.

Room location	Temperature	Humidity

3. Does air in the room feel stuffy or have a stale, musty, sour or chemical odor? Yes No

3a. Describe poor air circulation of rooms with that condition and mark it on your school floor plan.

4. Does your school measure the airflow to ensure that there is enough fresh air for students and teachers to work comfortably? Yes No *(IAQ connection: Airflow is measured in units called Cubic feet per minute (cfm). Different types of rooms have different standards of what a cfm should be, and it should be higher than the EPA's minimum standard listed here—this standard is not always applicable to older buildings.)*

4a. If your school has the information, please list it here. If your school does not have such information, you can contact your local health department or local Occupational Safety and Health Administration (OSHA) chapter who can often obtain it. You can also see our activity sheet for Green Flag program suggestions on how you can advance to Green Flag IAQ level three by conducting an activity to get information on measuring airflow in your classroom. One useful way to check air circulation is to hold a piece of tissue paper near different air vents in the school. If the paper does not flutter when held in front of three or more vents, then you likely have a ventilation problem.

Room	Your school's CFM	EPA minimum standard in Tools for Schools
<u>Classroom</u>		<u>15</u>
<u>MusicRoom</u>		<u>15</u>
<u>Library</u>		<u>15</u>
<u>Gym</u>		<u>15</u>
<u>Office Space</u>		<u>20</u>
<u>Conference Room</u>		<u>20</u>
<u>Cafeteria</u>		<u>15</u>

5. Do diesel buses idle near any doors, entryways, fresh air intakes or open classroom windows?
 Yes No

(IAQ connection: Almost all buses use diesel fuel, which produces the dirtiest exhaust and often leads to health problems among kids and adults who breathe the fumes.)

5a. Does your school have a diesel idling policy? (If so, please attach--see model policy in IAQ resource material.)

6. Are there pet animals kept in the classrooms, such as hamsters, guinea pigs etc.? Yes No
(IAQ connection: Warm-blooded animals have dander that can be an allergen or asthma trigger.)

6a. What animals are pets in your school and where are they located?

CLEANING AND MAINTENANCE

Many cleaning and maintenance products contain toxic chemicals whose negative effects are increased by poor indoor air quality. For information on these products' safe use and storage and finding alternative products, please see the Non-Toxic Product (NTP) level two survey and resource packet.

1. Are entranceway walk-off mats and floor grills clean and in good working order? Yes No

How long are they? *(IAQ connection: Entranceway mats should be vacuumed daily, and be at least 10 to 12 feet in length to cover enough area to capture dirt and dust particles brought into a building.)*

1a. Note location of damaged mats, measure the length of entranceway mats, and mark them on your school floor plan.

2. Does cleaning staff use vacuum bags with high-efficiency particulate air (HEPA) filters or micro-filtration in vacuum filters? Yes No

(IAQ connection: such filters are multi-layered and more efficient in capturing dirt and dust particles.)

2a. What type of vacuum bags does your school use? _____

3. Not all vacuums work well. Have your schools' vacuums met the standard of the Carpet & Rug Institute's Green Label Vacuum IAQ Program? (See IAQ resource packet) Yes No *(IAQ connection: The Carpet & Rug Institute has developed a testing program for vacuums that certifies the machines' ability to remove soil and capture fine dust particle--see list of vacuums that have passed this standard-. http://www.carpet-rug.com/drill_down_2.cfm?page=8&sub=5&listid=4)*

3a. Number of your school's vacuums that meet this standard _____ out of _____

4. If you have carpet in classrooms, corridors or entranceways, how often per week are these areas fully vacuumed? (*IAQ connection: Vacuuming is an important cleaning process that should take place several times a day in high traffic areas to reduce the dust particles that contribute to respiratory problems.*)

Classrooms: _____ corridors and hallways: _____ entrance or exit mats: _____

5. Is dusting performed with damp or micro fiber cloths? (*IAQ Connection: Only damp or micro fiber cloths capture the smallest dust particles.*) Yes No

6. Do the trash receptacles have lids? Yes No some

6a. If there are no lids are the trashcans emptied daily? _____

7. Does your school have a written cleaning plan? Yes No (*If yes, please attach. IAQ connection: Because all schools are different based on their age, materials of construction, geographical location, type of school --an elementary school needs to be cleaned differently from a high school -- it is necessary to develop a cleaning plan that meets the specific needs of the individual school.*)

7a. If not, describe the general cleaning routine and schedule for your school.

CONGRATULATIONS ON COMPLETING THE LEVEL TWO SURVEY.

Please submit survey with floor plan and all requested policies and program information.