Ohio's Healthy School Environment Guidelines

"Creating Healthy School Environments"
Regional Training, December 2014

Creating Healthy School Environments Training - Agenda

Central Region

8:30 a.m.	**Welcome and Introductions-Mandy Burkett** Housekeeping items (restrooms, parking, etc.) Review of Agenda & Pre-Questions Explanation of the guidelines: Why produced Process Intended Purpose	**(15 min.)** **.25**
8:45 a.m.	**Introduction of the Guidelines-Mandy Burkett** Structure Resource List Contents Gaining Approval	**(30 min.)** **.5**
9:15 a.m.	**Playground Safety** Greg Hennecke (Live)	**(45 min.)** **.75**
10:00 a.m.	**Break**	**(15 min.)**
10:15 a.m.	**Guidelines – Assessment Process (Part 1)-Mandy Burkett**	**(45 min.)** **.75**
11:00 a.m.	**Chemical Management** MaryAnn Suero (Live)	**(45 min.)** **.75**
11:45 p.m.	**Lunch on your own**	**(1 hour)**
12:45 p.m.	**IPM** Margaret Huelsman (Live)	**(45 min.)** **.75**
1:30 p.m.	**Guidelines -- Assessment Process (Part 2)-Mandy Burkett**	**(30 min.)** **.5**
2:00 p.m.	**Break**	**(15 min.)**
2:15 p.m.	**Ventilation** Jeff Hutchins (Live)	**(45 min.)** **.75**
3:00 p.m.	**Guidelines – Priority Planning, Action Planning,**	**(30 min.)** **.5**
3:30 p.m.	**Training, Communication - OSHEN** **Recognition Program**	**(15 min.)** **.25**
3:45 p.m.	**Questions & Post Questions**	**(15 min.)**

Overview

- Why Guidelines Were Created
- Process of Guidelines Creation
  (Who, What, How?)
- Intended Purpose of Guidelines

CREATING HEALTHY SCHOOL ENVIRONMENTS

Why focus on School Environments

- **Over 1.75 million children and 100,000 adults across Ohio spend their days in K-12 schools**
- **Poor environments linked to…**
  - Lack of concentration
  - Illness
  - School absenteeism
  - Lost work days for staff
  - Costly repairs
- **Improved environments linked to….**
  - Improved standardized test scores
- **Can save money**

CASE – Ohio
School Survey Results

- 12 of 13 schools had at least one classroom that exceeded recommended CO_2 levels.
- At least half of inspected classrooms in 8 schools exceeded recommendation.

CASE – Ohio
School Survey Results

Other issues observed

- Improper food storage
- Gaps in exterior openings
- Garbage collection areas

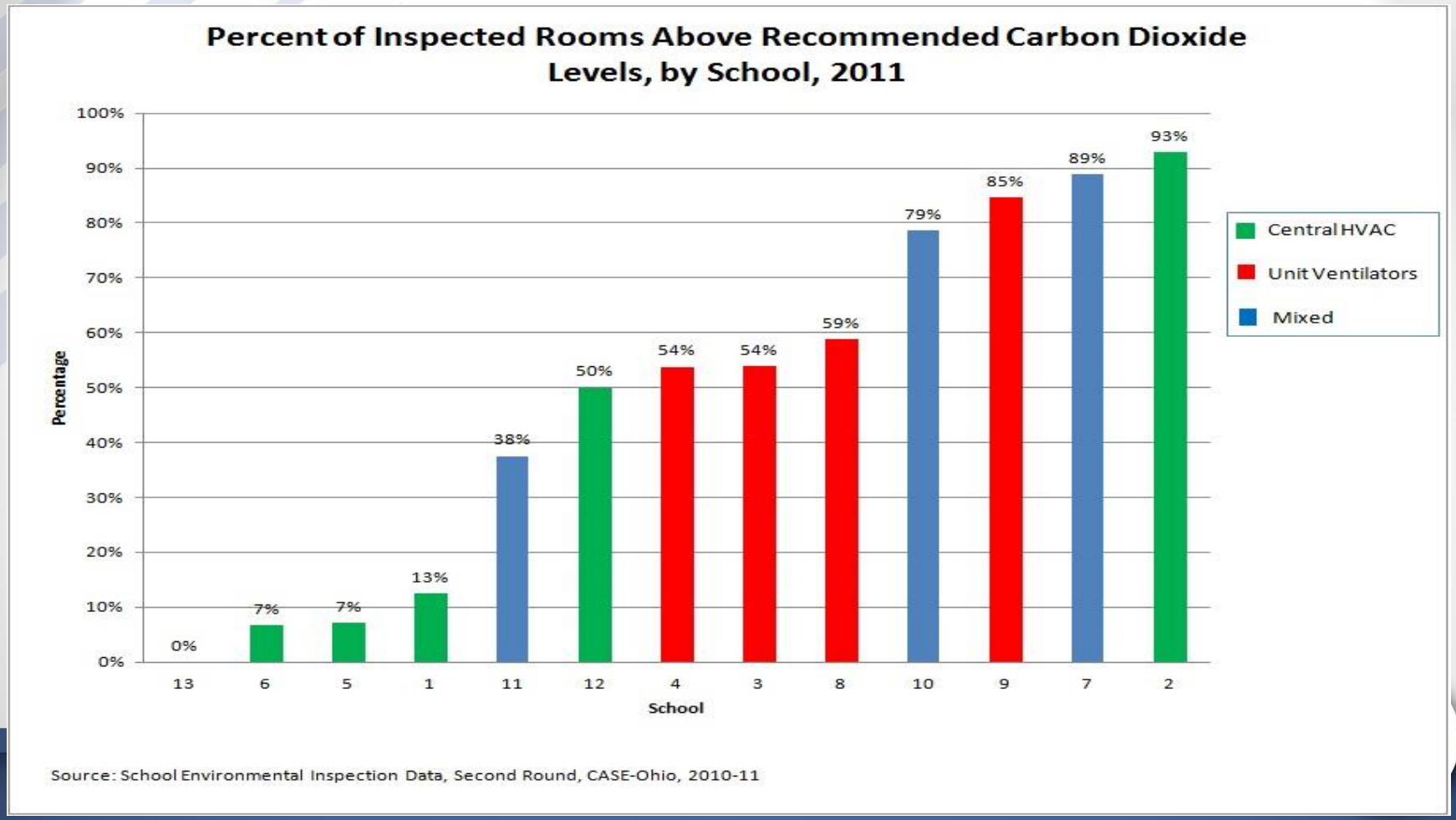
CASE – Ohio
School Survey Results

- High VOC cleaners observed in all schools.
- Exhaust in chemical storage areas unclear.
- Aerosol sprays observed in eight schools.
- High VOC markers observed in all but one school.

CASE – Ohio
School Survey Results

- 12 of 13 schools had at least one classroom that exceeded recommended CO_2 levels.
- At least half of inspected classrooms in 8 schools exceeded recommendation.

Survey Results - Ventilation



State of Ohio Schools

- Baseline survey 2014

Baseline School Environmental Health Assessment Form

Name of School	Name of School Contact
School Phone	Contact Title
Address	Contact Phone
City / Zip	Contact Email
County	Name of Inspector
Grades of Instruction	Year Constructed
School District	Year(s) Renovated

Type of School (Check all that apply)

- ☐ Preschool
- ☐ Kindergarten
- ☐ Elementary
- ☐ Middle
- ☐ Intermediate
- ☐ High
- ☐ Career Center
- ☐ Other_____

HVAC System (Check all that apply)	HEATING	COOLING
Central Forced Air Systems	☐	☐
Unit Ventilators	☐	☐
Steam/Hot Water Radiators	☐	n/a
Electric Heating Units	☐	n/a
Geothermal	☐	☐
Other _____	☐	☐

Siting Data

Proximity to major roadways _____

Proximity to agricultural fields _____

Proximity to industrial complexes _____

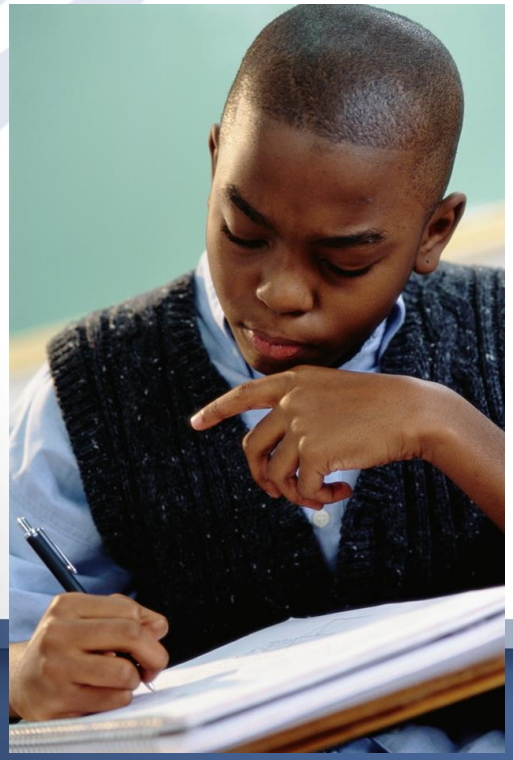
1. Outdoor Grounds and Air Quality	No Issue Observed	Minimal Issue	Moderate Issue	Significant Issue
1.1. Engine idling time policies are developed and implemented in accordance with OAC 3301-83-20.				
1.2. Grounds adjacent to buildings are free of standing water that may contribute to mosquito breeding, and building exterior is free of evidence of water damage or of conditions that may contribute to water intrusion into the building.				
1.3. Gutters and drainage systems are in good repair and well maintained.				
1.4. Windows and walls are free of signs of damage.				
1.5. There is adequate drainage away from building foundation.				
1.6. Outside air intake screens should be intact & unobstructed. There should be no contaminant sources near outside air intakes and air intakes should be protected by screens, louvers or other filtering devices.				

2. Playgrounds	No Issue Observed	Minimal Issue	Moderate Issue	Significant Issue
2.1. All playground equipment is in good repair.				
2.2. Staff supervises use of the playground by students during school hours.				
2.3. Equipment components are free of protruding bolts or separations that could cause the entanglement of a portion or portions of the body, clothing, jewelry, or other items that may result in the strangulation or dismemberment of the user.				

Why the Guidelines Were Created

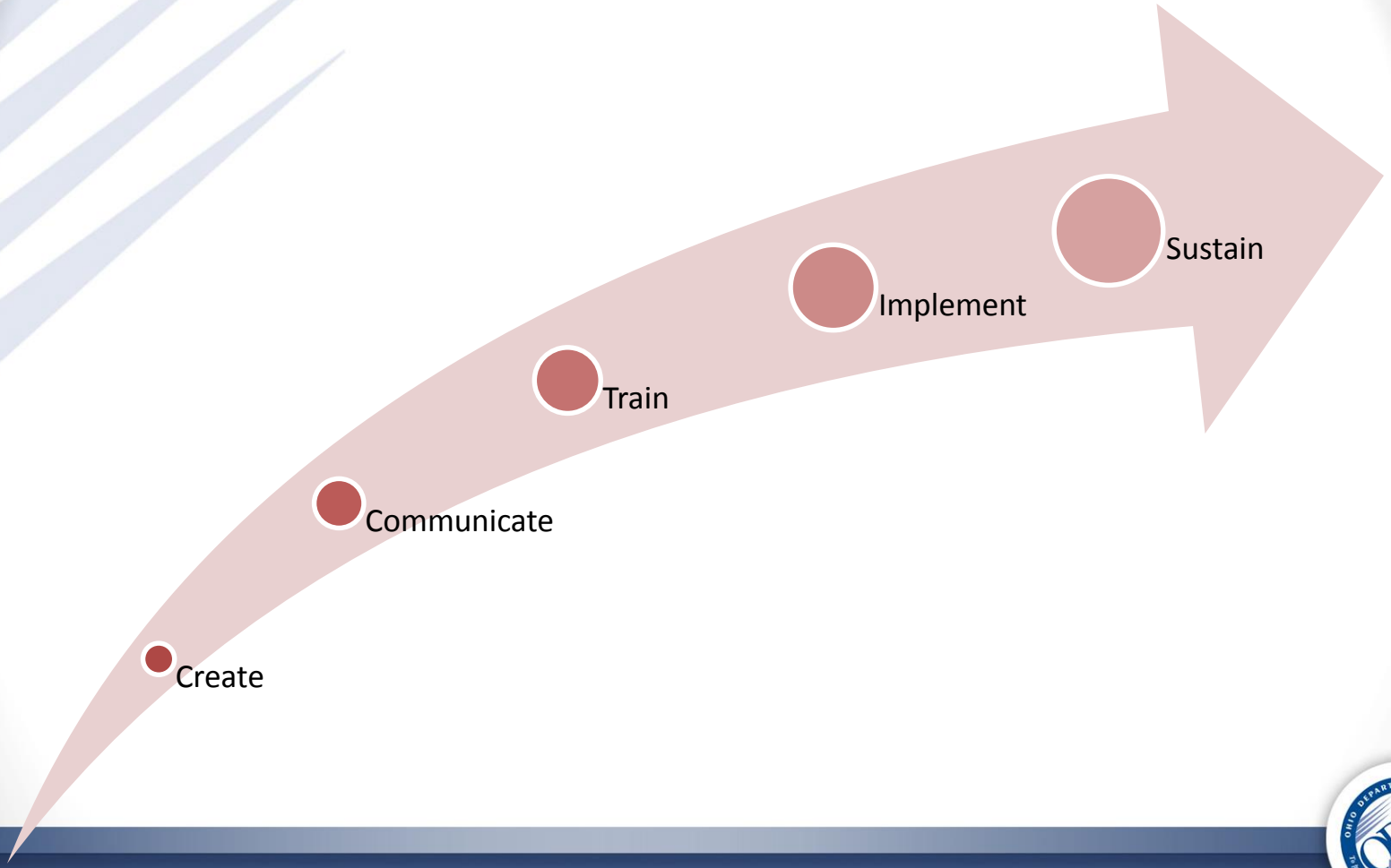
USEPA Grant to Build State Capacity for School Environmental Health

Providing Opportunities for…



- Consensus on what's important for the safety and health of Ohio children
- Consistency of expectations
- Professional development
  - School personnel
  - Public health
- Sustainability

Our Strategy…



How were the Guidelines Created?

A statewide School Environmental Health Advisory Panel (SEHAP)

- Formed in January, 2014
- Met twice a month at the State Library in Columbus
- Made up of representatives from educational and public health organizations
- Public review of the draft

SEHAP Members:

- Ohio School Boards Association
- Ohio Association of School Business Officials
- Ohio Federation of Teachers
- Ohio Bureau of Workers Compensation
- Ohio EPA
- Association of Ohio Health Commissioners
- Public Employment Risk Reduction Program
- Buckeye Association of School Administrators
- Ohio PTA
- Ohio Association of School Nurses
- Ohio Environmental Health Association
- Five Regional Liaisons from Cuyahoga County, Erie County, Summit County and Union County (2)

Lessons Learned from Jarrod's Law

- What went wrong?
  - Not enough coalition building/consensus
  - Not enough education to sustain changes
    - Statewide leadership
    - Public health
    - Schools
  - Too much, too soon?
- What went right?
  - Educated a lot of people
  - Made a lot of progress
  - Still implemented in schools and LHDs

What Characterizes the Guidelines?

1. Written for schools
2. Featuring many free or low-cost action items
3. Presented in a step-by-step fashion
4. Written to easily integrate with voluntary inspection criteria at a future date

Intended Purpose of the Guidelines

- The purpose of this project is to assist Ohio's nearly 4,000 K-12 schools in evaluating, improving and maintaining the environmental health of their facilities.

Long-term:

- Decreased absenteeism of students and staff
- Stronger academic performance
- Long-term financial return on investment

Overview of the Guidelines

CREATING HEALTHY SCHOOL ENVIRONMENTS

Step by Step

Purpose of Guidelines

- Written for schools – not an inspection document to assist schools in improving environmental health
- Voluntary
- Step by step guidance on implementation
- Tools and Resources to assist
- Options for implementation/recognition
  - Foundational
  - Enhanced
  - Optimal

CREATING HEALTHY SCHOOL ENVIRONMENTS

Tiering Criteria

Foundational

- Items that, if not attained, could result in serious injury, illness or death
- Mandated by law

Enhanced

- Important to environmental health, but that may not result in serious injury, illness or death
- Items in this category should be considered for inclusion in primary level under the following circumstances:
  - Preventive for developing conditions that may lead to a category one
  - Items that may affect a large number of building occupants in terms of performance or absenteeism
  - Items that can be accomplished with low cost or time investment

Optimal

- Building upon established basics to achieve a higher standard of SEH
  - Energy Efficiency, Curriculum integration, data collection and monitoring

Resource Contact Information

District Superintendent Name:	Phone: ( ) -	Email:
School health care provider Name:	Phone: ( ) -	Email:
Fire Department Name:	Phone: ( ) -	Email:
Local Health Department Name:	Phone: ( ) -	Email:
Ohio Department of Health, School Environmental Health Program	Phone: (614) 644-7408	Email: SEH@odh.ohio.gov
Ohio EPA-District Office Name:	Phone: ( ) -	Email:
Public Employee Risk Reduction Program	Phone: (800) 671-6858	Email: PERRPrequests@bwc.state.ohio.gov
Local Building Department Name:	Phone: ( ) -	Email:
Local Emergency Management Association Name:	Phone: ( ) -	Email:
Local Police Department (non-emergency) Name:	Phone: ( ) -	Email:
Hazardous Spills: Ohio Environmental Protection Agency	Phone: (800) 282-9378	
Poison Control	Phone: (800) 222-1222	Number will direct you to the nearest Ohio Poison Control Center
Solid Waste Haulers Name:	Phone: ( ) -	Email:
HVAC Contractor Name:	Phone: ( ) -	Email:
Regulated Waste Name:	Phone: ( ) -	Email:
Plumber Name:	Phone: ( ) -	Email:

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Introduction

Why School Environmental Health (SEH) Guidelines?

The purpose of these voluntary guidelines is to assist Ohio's nearly 4,000 K-12 schools in evaluating, improving and maintaining the environmental health of their facilities. Improvements in school environmental health will enhance the educational environment leading to decreased absenteeism of students and staff, stronger academic performance (including higher test scores) and long-term financial return on investment 1,2,3,4,5.

Over 1.75 million children and 100 thousand adults across Ohio spend their days in K-12 schools6.

A growing body of research strongly supports the importance of school environmental health to both

- Why School Environmental Health is Important
- What the guidelines are and are not
- Who should use the guidelines
- Basic levels of recognition
- Organizations participating in development

Overview of Stepwise Process

The Guidelines, Step by Step

The recommended pathway to successful implementation of the guidelines includes the following steps:

Step One: Consider who in authority must give approval for this project. In addition, identify those who will support this effort as well as any existing committees or groups that are promoting a healthy school environment. Template letters and presentations are included to assist in communicating with other school environmental health stakeholders.

Step Two: Assess the condition of the facility, inside and out. There are eight (8) different checklists that will help schools to identify their current state of environmental health. The assessment process can be done by one person, but it is recommended that coordinators take advantage of the knowledge of the staff who spend the most time in these different areas in order to get the most accurate assessment and, also, to gain some support from building occupants.

Step Three: Complete priority planning table (template provided) to map out your approach to addressing any issues identified during the assessment process.

Step Four: Complete an action plan (template provided). Implement the action plan and record progress on your action plan. During this phase you will want to choose how often you will update your assessment and action plan.

Step Five: Include training for building occupants as well as communication with staff, parents and wider community (templates provided for training scheduling and newsletter articles). When planning training events consider:

- Join the Ohio Schools' Healthy Environment Network (OSHEN) to receive up to date information on school environmental health, including short monthly webinars available free of charge.
  (http://1.usa.gov/1gEMVDn and QR code)

Step Six: Take the opportunity to be publicly recognized by the Ohio Department of Health for implementing the guidelines at one of three different levels. This will include a decal which can be posted prominently to display your achievement. Recognition announcement letters will be made available upon request and ODH will issue a press release to your local area media, if you choose to take this step.

Step One: Gaining Approval

- Guidelines written to be accessible to anyone
- Appropriate authority is needed
- Support of school community is necessary

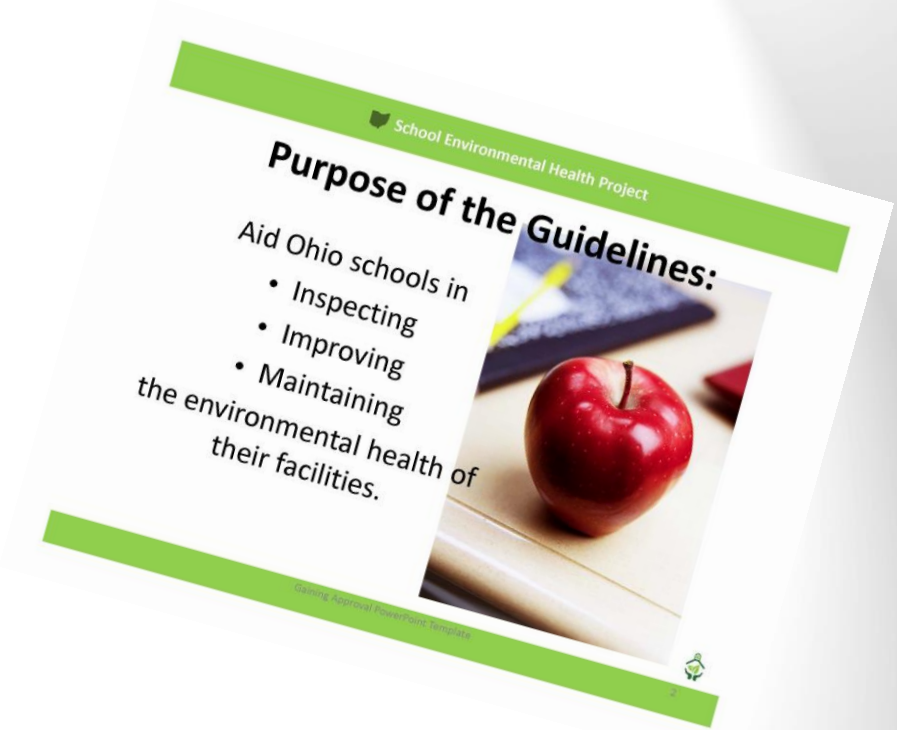
Step One: Gaining Approval

Identify decision makers

Make your case

Tools to assist

- Letter
- Short Ppt presentation
- Fact Sheet



Step One: Gaining Approval

Gaining Approval Letter

Dear *[Name of Supervisor]*,

I am interested in using the newly released voluntary Ohio School Environmental Health Guidelines to assess the health of our school environment and to help prioritize any action we might need to take to improve our school environment. This is a strictly voluntary program requiring no reporting of data, unless we decide to pursue recognition for our efforts.

It is suggested that the assessment include asking the following staff to complete a quick assessment of their areas:

- Classroom teachers-room numbers
- Athletic director-athletic field/gym/locker areas
- School Healthcare Provider – clinic or healthcare area
- Facilities or Business Manager – building and grounds
- Custodian – custodial closets and maintenance areas
- Administrator – administrative areas and policies

Once the assessment is completed, the results can be used to form an action plan to address any needs identified. The guidelines have templates that will assist with these activities. If you are willing to pursue this project, please provide me with the name of the person with whom I should discuss implementation.

There are three levels of implementation possible so that our level of effort may be tailored depending upon the level of school environmental health we wish to achieve or can afford at this time. The three levels are:

- B Foundational Level School Environmental Health which focuses on assuring a basic healthy and safe school environment (Bronze Level Recognition).
- S Enhanced Level School Environmental Health which focuses on providing all basic requirements, but demonstrates further commitment to reducing asthma and allergy triggers and improving indoor air quality (Silver Level Recognition).
- G Optimal Level School Environmental Health which focuses on achieving the highest level of school environmental health by committing to efforts such as environmentally sound purchasing, data collection for quality improvement and integration of environmental health into student curriculum in addition to the foundational and enhanced level requirements (Gold Level Recognition).

Possible benefits of implementing this program include: creating an environment conducive to learning and healthy for all building occupants, increasing cost effectiveness, improving community

Step One: Gaining Approval

Power Point Slides

- Can be downloaded from ODH website
- Used with
  - Administration
  - Staff
  - School Boards
  - Other Audiences

Voluntary Guidelines for Ohio Schools

Ohio Department of Health

2014

Purpose of the Guidelines:

Aid Ohio schools in

Inspecting

Improving

Maintaining

the environmental health of their facilities.

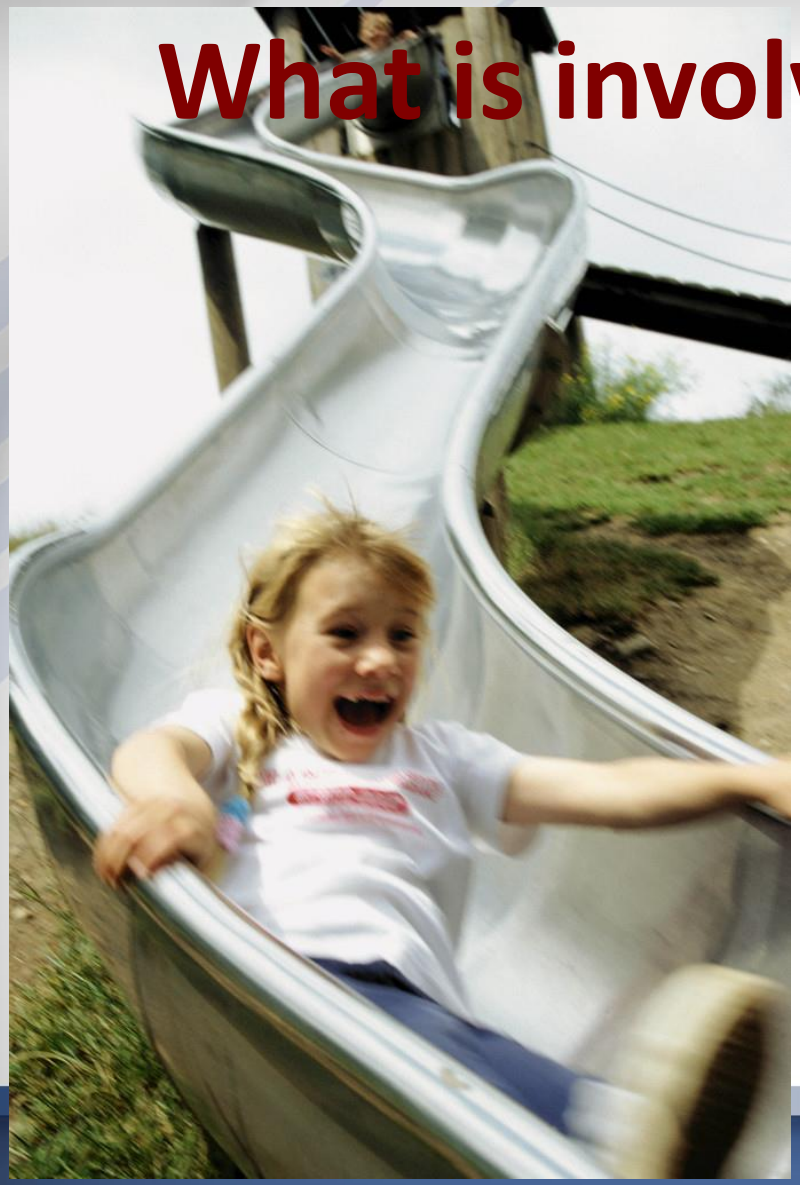
Why implement guidelines?

Demonstrate commitment publicly

Improve health and safety of facilities

Further our core educational mission

What is involved?



1. A school wide assessment
2. Creation of an action plan
3. Implementation of the action plan

What are the benefits?

Improvement in school environmental health has been strongly linked to:

1. Reduced absenteeism in staff and students
2. Improved academic performance
3. Improved financial return on investment

Public Recognition

If we choose, our school will have the opportunity to be publicly recognized by the Ohio Department of Health

"Healthy School Environments Award"

Press release for community awareness

Ohio
Department of Health

Step One: Gaining Approval

Fact Sheet

- Administrators
- School Board Members

CREATING HEALTHY SCHOOL ENVIRONMENTS

Voluntary Guidelines for Ohio Schools

DECREASE ABSENTEEISM • INCREASE ACADEMIC PERFORMANCE

GAIN LONG TERM FINANCIAL RETURN

Creating Healthy School Environments: (v.) Inspect, improve and maintain facilities to create healthy learning environments favorable to increased attendance and academic performance while saving money in the short and long term.

The new school environmental health guidelines have been developed to assist Ohio's nearly 4,000 K-12 schools in inspecting, improving, and maintaining the environmental health of their facilities. Improvement in school health across the country has been strongly linked to significant positive impacts including reducing illness in students and staff, increasing standardized test scores, and improving financial wellness.

For references on school environmental health studies visit http://1.usa.gov/1gEMVDn

Implementation of this project can be initiated by teachers, staff, students, administrators, and other educational personnel in order to transform schools into healthy learning environments.

The Creating Healthy School Environments project recognizes the limitless capabilities of all Ohio children. Schools that utilize this project will publicly reestablish their commitment to improve the health and safety of their facilities to best support their students' futures.

JOIN OSHEN

http://1.usa.gov/1gEMVDn

OHIO SCHOOL STATS

+1.75 MILLION CHILDREN

+100,000 ADULTS

+4,000 K-12 SCHOOLS

3 STEPS TO CREATING HEALTHY SCHOOL ENVIRONMENTS

1 ASSESS → 2 IMPROVE → 3 MAINTAIN

Ohio Department of Health

9

Playground Safety

BREAK

Guidelines – Assessment Part 1

Step Two: Assessment

Determine the current status

Be thorough

Identify Staff for each area

- Cover letter
- Area Specific Fact Sheet
- Area Specific Checklist

Conduct an overall walkthrough

Step Two: Assessment

Areas to be assessed:

1. Outdoor Grounds and Outdoor Air Quality
2. Playgrounds
3. Classrooms and General Indoor Areas
4. Specialty Classrooms
5. Indoor Athletic Areas
6. Health Care Area
7. Non-Classroom Areas
8. Environmental Health and Safety Policies.

Why include staff in assessment?

- Valuable information
- Buy-in
- Teachable moment

Assessment Checklist

= accomplished quickly/easily/low cost

3. Classroom Checklist

See Appendix A for item by item description and resources.

School	
Completed by	
Signature	
Date Completed	

Prevent Moisture/Mold in Schools	Yes	No	N/A
3.1. Indoor environments are sanitary with no sign of moisture, water damage or suspected mold on any interior surface (OSHA 29 CFR 1910.22(a)(1)).			
3.2. Routine moisture inspections are conducted to ensure the school building is free of moisture problems, water damage, and visible mold on all interior surfaces (OSHA 29 CFR 1910.141(a)(3)(ii)).			
3.3. Information on mold is integrated into the student curricula.			

Dust and Clutter	Yes	No	N/A
3.4. Surfaces are free from excessive accumulation of dust or sediment.			
3.5. Items are annually assessed for disposal or stored promptly so that routine maintenance and cleaning are not inhibited or restricted by stored items.			

Pests	Yes	No	N/A
3.6. Indoor areas are free of evidence of pests or obvious food sources for pests (OSHA 29 CFR 1910.141(a)(4)(i)) (OSHA 29 CFR 1910.141(a)(5)).			
3.7. Food waste or pest attractants are immediately placed in a trash can, and trash is removed daily from the school building.			
3.8. Food and beverages are allowed only in designated areas and food is stored in airtight containers.			
3.9. All food crumbs or spilled drinks are cleaned immediately.			
3.10. Dishes are washed promptly after use.			

Classroom Furnishings	Yes	No	N/A
3.11. Furniture and toys are cleanable, clean and in good repair.			
3.12. Drapes, blinds, shades and banners are clean and in good repair.			
3.13. There is no excessive accumulation of chalk or marker dust and markers are low or no volatile organic compound emitting.			

Reminder:
Bronze = Basic health & safety
Silver = Further commitment to reducing allergy and asthma triggers, improving indoor air quality
Gold = Environmentally sound purchasing, data collection, curriculum integration

Bronze

Gold

Silver

Reference additional information in Appendix A

Appendix A – Additional Information

3. Classrooms Additional Information

* = Indicate items that can be accomplished quickly or easily and are generally low cost

3.1. Indoor environments are sanitary with no sign of moisture, water damage or suspected mold on any interior surface (OSHA 29 CFR 1910.22(a)(1)).	Mold has been identified as an agent that can exacerbate certain health conditions, such as asthma and allergies. Mold spores are everywhere in our environment. However, for mold to develop beyond the spore stage, water is necessary. Any surface where mold is growing has had or is having a problem with moisture. The moisture problem should be corrected to prevent future mold growth. Once the moisture problem has been corrected the surface should be cleaned, if it is a cleanable surface, or removed and discarded when cleaning is not possible. Table 1 outlines proper cleaning methods depending on the surface on which mold is found. This table has been reproduced from the US EPA guidance document, "Mold Remediation in Schools and Commercial Buildings." Ongoing water intrusion can cause structural damage as well as provide a food source for mold and insects. Some indicators of water intrusion or water damage are peeling paint, deteriorated siding, rotted window sills, mold on walls, peeling wallpaper and discolored ceiling tiles. Any sign of water intrusion should be evaluated and corrected promptly. Wet surfaces should be dried within 24-48 hours to inhibit mold growth. Table 2 outlines recommended clean-up methods, depending on surface area affected, as well as recommended personal protective equipment and type of containment necessary.

Table 1: Water Damage - Cleanup and Mold Prevention

Guidelines for Response to Clean Water Damage within 24-48 Hours to Prevent Mold Growth*

Water-damaged Material†	Actions
Books and papers	• For nonvaluable items, discard books and papers. • Photocopy valuable/important items, discard originals. • Freeze (in frost-free freezer or meat locker) or freeze-dry.
Carpet and backing - dry within 24-48 hours§	• Remove water with water-extraction vacuum. • Reduce ambient humidity levels with dehumidifier. • Accelerate drying process with fans.
Ceiling tiles	• Discard and replace.

Checklist Cover Letter

- Explains what's being done
- Why it's important
- Why their input is important
- Instructions
- Organizer's contact information

Checklist Cover Letter

Dear *[Name of staff person to complete assessment form]*:

[Name of School] is conducting an assessment of the school environment to determine if there are ways that we can improve upon the learning environment for students and staff. A growing body of research indicates that poor environmental conditions can impact academic progress by making it harder for students to concentrate, causing or exacerbating illness in students and staff, increasing absences and lost work days, and diverting school funds to pay for costly repair and remediation projects. Approximately *[number of students and staff in your school building]* students and staff spend their day in our school building, so this is an important issue for us to address.

The first step in assuring we're doing our best to address the school environment is an assessment of our school building. You're being asked to participate in this assessment because we feel you are the person most familiar with the environment in which you work. We value what you have to tell us. Please review the fact sheet provided to give you a better understanding of how the school environment might play a role in your area. Then, I would appreciate it if you would complete the enclosed assessment, indicating either yes, no or not applicable for each item listed. There is also an area where you make other more detailed notes or record questions. Please return the completed questionnaire to *[name of coordinator]* by *[date of completion]*.

Results of independent assessments will be compiled and a general walk-through will be completed. This information will help us develop an action plan to improve our school environment.

We are making use of new voluntary guidelines for school environmental health established by the Ohio Department of Health and an advisory panel of school personnel and public health officials. Depending on how well we are able to meet the standards of the guidelines, our school may be eligible to receive community recognition for our efforts from the Ohio Department of Health.

Thank you in advance for taking time to complete the attached form. If you have questions about the process, please feel free to contact me at *[phone number or other method of communication]*.

Sincerely,
[Name and title of Coordinator]

Area Specific Fact Sheets

- General Introduction
- Area-specific overview
- Area-specific tips
- Resources

OUTDOOR GROUNDS AND OUTDOOR AIR QUALITY FACT SHEET

There is no doubt that kids learn better in healthy environments. Children spend much of their critical formative years on school grounds and in school buildings where they can be exposed to a variety of potential health and safety hazards. Reducing exposure to harmful environmental hazards will keep them healthier, enhance their performance in the classroom today, and set them on a course to achieve their goals for the future. The Ohio Department of Health has identified eight areas in the school environment that schools can assess in order to improve environmental health. Problems can be identified and solutions implemented, often using low cost measures and existing resources.

An overview of outdoor grounds and outdoor air quality:

The grounds and air surrounding the school building must be maintained in order to provide a healthy and safe outdoor environment, to keep pollutants from entering the school building and to protect the integrity of the school building(s). Attention to the outdoor grounds and air quality will help to provide a clean, safe, pest-free school environment.

Tips for Keeping School Grounds Safe and Healthy:

- **Keep grounds free from litter** – In addition to detracting from the appearance of your school, litter may attract pests, pose a hazard to young children and may cause trip hazards, so pick up litter quickly. Trash and recycling containers can be an attractant for pests if not maintained properly. Make sure they're placed away from the building, have lids and the surrounding area is kept clean of debris or residue that will attract bees or pests.
- **Monitor for trip hazards** – Wear or vandalism may result in deteriorating, uneven or broken pavement or sidewalks. Look for these and repair quickly or notify grounds keeper of problems to prevent injuries from falls or stumbles.
- **Minimize Idling and Exposure to Idling Exhaust** – Exhaust emissions from diesel engines have been classified as probable human carcinogens (cancer causing agents). Several emissions products are also USEPA criteria pollutants known to exacerbate asthma. It is important to prohibit or limit idling of diesel buses and cars when children are exiting or boarding vehicles. It is also important that buses and vehicles not idle near outdoor air intakes for the school ventilation system as exhaust can enter the building and cause odor and health complaints.
- **Monitor water flow around the building** – One of the most frequent complaints the Ohio

VOLUNTARY GUIDELINES FOR OHIO SCHOOLS – Assessment 25
(Ohio Department of Health)

Who's the right person to assess each area?

- Outdoor Grounds and Outdoor Air Quality
- Playgrounds
- Classrooms and General Indoor Areas
- Specialty Classrooms
- Indoor Athletic Areas
- Health Care Areas
- Non Classroom Areas
- Policies

Outdoor Grounds and Outdoor Air Quality

- All School Grounds
  - Clean & sanitary with no litter
- Sidewalks and Walkways
- Grounds adjacent to building

Engine Idling Time Policies
“ OAC 3301-83-20 (O)

“Districts shall adopt engine idling time policies that minimize the amount of time diesel engines shall be left idling. Diesel engine idling in excess of five minutes in school loading zones shall not be permitted unless the operation of a wheelchair lift is required. “

Why is this important?

- Diesel exhaust contains small particles that can lodge deep in the lung
- Can cause lung damage and premature death
- Aggravates conditions such as asthma or bronchitis
- Wastes fuel and money

Ohio EPA
Ohio Environmental Education Fund

Ohio EPA Clean Diesel School Bus Fund Retrofit Grants Program

Ohio Diesel Emissions Reduction Grant Program

Outdoor Grounds

- Trash, Recycling and Compactor Containers
- Outside Air Intakes
- Exhaust Stacks, Vents and Chimney Flues
- Outdoor Air Pollution
- Roof
- Floor Mats
- Exterior Doors

Playgrounds

- General Safety
- Protective Surfacing

Classroom

- Moisture control
- Pest Control
- Appropriate Furnishing
- Safety
  - Furnishing
  - Chemical Safety
  - Heating, Ventilation An Cooling

Classrooms

- Animal Management
- Lighting
- Electrical Safety
- Dust and Clutter

Lighting in Schools

Provide the Proper Level of Light Throughout School

- Adequate lighting is essential for a quality educational environment
- Provide enough light for students to learn, for teachers to use different media for instruction and for custodial staff to clean properly
- Lighting should be a combination of natural (indirect) and artificial (direct)

ROOM TYPE CLASSIFICATION	2000 IES FOOTCANDLES	RECOMMENDED DESIGN FOOTCANDLES DIRECT LIGHTING(1)	RECOMMENDED DESIGN FOOTCANDLES *INDIRECT* LIGHTING
ADMINISTRATIVE			
Offices/Receptionist	50	50	40
Storage Rooms	-	25	25
Restrooms	5	25-30	25-30
Conference/Resource Rooms	30-100	50	40
Health Clinic	50	50	40
Teacher Prep/Workroom	50	50	40
CLASSROOMS-GENERAL	30	50	40
Art Rooms/Kiln	50	50	40
Modular Technology Labs	-	50	40
CADD Labs	30	30	30
Industrial Tech/Production Labs	100	60	60
Computer Labs	30	40	40
Graphics Labs	30-100	50	40
Life Skills Labs	50	50	50
Science Labs	50	50	50
Laundry Rooms	-	25	25
Music Rooms	30-50	50	40
Large Group Instruction Rooms	30	50	40
MEDIA CENTER	-	50	40
Active Areas	30 vertical	50	40
Inactive Areas	5 vertical	40	40
ATHLETIC AREAS			
Gymnasium - Elementary School	100	50	-
Gymnasium - Middle School	100	50	-
Gymnasium - High School	100	60	-
Multi-use P.E. Rooms	-	50	-
Locker Rooms	10	25	25
STUDENT DINING/AUDITERIAS			
Assembly	10-20	20	-
Stage/Work Lights	30	20	-
Make-up/Dressing Rooms	30-50	50	-
Theatrical Control Room	10-30	30	-
Equip room with dimmable incandescent lighting offering 10 footcandles of illumination.			

Provide Proper Guarding Where Appropriate

- Light fixtures should have guarding over bulbs to prevent cuts from broken bulbs and ultraviolet (UV) radiation from mercury vapor light bulbs (commonly found in gymnasiums)

Electrical Safety

3.49 Electrical Cords in Good Condition

3.50 Ungrounded Extension Cords

3.50 …Extension Cords & Permanent Equipment

3.51 Switches & Outlets

Surfaces free from excessive accumulation of dust or sediment

- Dust is a know allergen and asthma trigger
- High and low surfaces are not cleaned as often as those at eye level
- Dust on high surfaces can fall onto surfaces and students where it can be inhaled
- Dust on lower surfaces can fall to the floor and be stirred up into the breathing zone of students as they move about the classroom

Items are assessed at least annually for disposal or stored promptly so that routine maintenance and cleaning are not inhibited or restricted by stored items.

- Items stored on the floor can inhibit cleaning
- Storage containers placed on or around unit ventilators, can reduce the quality of indoor air and the thermal comfort of occupants
- Teaching supplies should be stored in containers that can be easily cleaned and moved
- Staff should only keep materials in the classroom that are necessary for use during the school year

Items are assessed at least annually for disposal or stored promptly so that routine maintenance and cleaning are not inhibited or restricted by stored items.(con't)

- Clutter can contribute to pest infestations by providing food and shelter
- A lack of storage space will contribute to clutter in classrooms
- Storage containers should be kept on shelving or in cabinets so floors and other surfaces can be cleaned
- Keep storage to a minimum

Specialty Classrooms

- General Safety
- Mercury
- Hand Washing
- Hazard Communication
- Chemical Safety
- Emergency Equipment

Chemical Management

Lunch on your own

Integrated Pest Management

Guidelines – Assessment Part 2

Indoor Athletic Facility Hazards

Weight Rooms

Wrestling Rooms

Gymnasium Lighting

Personal Hygiene is Crucial!

Encourage:

- Frequent hand washing
- Showering immediately after practices & games
- Frequent washing of clothing & towels
- Reporting skin infections to nurse/trainer

Health Care Area

- General Health Care Area
  - Is there an appropriate space?
- Equipment and Durable Supplies
  - Cleanable cot or resting area
  - Accessible sink/toilet
  - Non-mercury containing thermometer/ blood pressure
  - Locked cabinets/drawers/door

Non-Classroom Areas

- Hallways & Stairwells
- Auditoriums and Student Dining Areas
- Library or Media Center
- Sinks/Plumbing Fixtures
- Moisture, Water Damage or Mold

Hand Washing

- Hand washing is a simple habit, something most people do without thinking. However, despite the proven health benefits of hand washing, many people don't practice this habit as often as they should – even after using the toilet.

- When done properly, hand washing is one of the best ways to avoid getting sick.

Dangers of Not Washing Your Hands

Throughout the day you accumulate germs on your hands from a variety of sources, such as direct contact with people, contaminated surfaces, foods, even animals and animal wastes. If you don't wash your hands frequently enough:

- You can infect yourself – touching your eyes, nose or mouth.
- You can spread these germs to others.
- Infectious diseases are commonly spread through hand-to-hand contact – such as the flu, common cold and several gastrointestinal disorders.
- Inadequate hand hygiene also contributes to food-relates illnesses.

Engaging Children

What are some ways to help children with good hand washing technique?

- Have them sing the “Happy Birthday” or “ABC’s” song twice through while washing their hands.
- Encourage and help children to wash hands before eating, after playing outdoors or playing with pets, after using the bathroom and after blowing their noses.
- Don’t assume that children know how or when to wash their hands.
- Children learn by example! Let them observe good hand washing technique from the adults who care for them.

- Proper hand washing results in fewer illnesses resulting in decreased absenteeism of both the student population and faculty.

Custodial Closets-General

- Custodial closet is inaccessible to unauthorized individuals. Many of the chemicals and supplies commonly found in the custodial closet pose fire, safety and health hazards to students. Access to all custodial closets should be restricted and doors kept locked while not physically occupied by school custodial staff.

Custodial Closets-General

- Such chemicals, as those stored in custodial closets, may also represent an attractive nuisance to students inclined toward their misuse. Such controls will significantly reduce the likelihood of accidental chemical exposures, other accidents or intentional misuse by students.

Cleaning Solution Dilution and Preparation

- NEVER mix different cleaning products together.
- ALWAYS read and follow SDS recommendations.
- ALWAYS wear proper protective equipment when working with chemicals.

Bringing in outside products?

- Teachers and staff are encouraged to use cleaning products provided by the school and not to bring in cleaning chemicals and products.

If products are brought in, SDS need to be provided for the schools files. It's recommended that SDS also be kept at the point of use.

Chemical Storage in Custodial Closets

- All Flammable or combustible liquids/chemicals are stored in approved flammable storage cabinets.

There should be requirements in place to control flammable or combustible liquids/chemicals in order to protect school attendees, personnel and the environment.

Non-Classroom Areas - continued

- Administrative Areas
- Drinking Water
- Wastewater Management
- HVAC System

Policies

- Chemical Hygiene Plan
- School Safety Plan
- Hazard Communication Plan
- Bloodborne Pathogens Training
- Medication Administration
- Choking Policy
- Food Allergy Policy

Policies - continued

- Asbestos Management Plan
- No Smoking Signs Posted
- Integrated Pest Management Plan
- Pesticide Application Policy
- Radon Testing
- Hand Washing Protocol
- 100% Tobacco-Free Policy

Break

Ventilation

Guidelines – Priority Planning and Action Planning

Step Three: Priority Planning

"Many people hate the planning phase of a project, but it has been well documented that every minute you spend in planning can save you ten in action."

Priority Planning-cont.

Create a master list of all “no” items

- You may have priorities that are not on the checklists, but that are required by your school or stakeholders. Add these to the list.
- The digital version of the guidelines will include an electronic spreadsheet that will help you record and work with this data.

Priority Planning-cont.

Identify goals for School Environmental Health

- Bronze Level (Foundational)
- Silver Level (Enhanced)
- Gold Level (Optimal)

Which level makes sense for your school at this time? Think of resources and the kinds of improvements needed.

Priority Planning-cont.

Start with “low-hanging fruit”

- Do you have items on your list that are identified with the apple icon?
- You may want to consider putting these at the top of your list in order to demonstrate immediate success in that area.

Priority Planning-cont.

Prioritize items

Rating Criteria		
Is it required by law?	0	Not mandated by law or policy
	4	Mandated by law or policy
Impact on health and safety (H & S)	0	No significant impact
	1	Low impact
	2	Moderate impact
	3	High impact
	4	Critical to health and safety
Amount of time required to achieve	0	Time requirement not achievable
	2	Moderate time commitment
	4	Very little time required
Amount of money required to achieve	0	Cost not possible, at this time
	1	High cost
	2	Medium cost
	3	Low cost
	4	No cost

Priority Planning-cont.

Template Priority Planning Table

Level	Item	Law	H&S	Time	$	Total
F	Staff supervises use of the playground by students during school hours.	0	3	2	2	7
E	Gutters and drainage systems are in good repair and well maintained.	0	1	2	2	5
O	Accurate records of roof and building inspections are maintained.	0	1	2	4	7
F	Portable banquet tables, cafeteria tables and other portable furniture items, when not in a position intended for use, are stored in a manner inaccessible to students or are secured to the wall or floor to prevent injuries from tipping.	0	4	4	3	11
F	Walls have paint and plaster intact with no visible bowing or evidence of cracks or damage	0	3	1	2	6
F	Animal containers or cages are free from excessive accumulation of animal waste.	0	2	4	4	10
E	Surfaces are free from excessive accumulation of dust or sediment.	0	2	3	3	8
E	HVAC systems have unobstructed air supply grilles or outlets and air return grilles or inlets with no rigged baffles, deflectors or barriers affixed.	0	3	4	3	10
F	Personal protective equipment is in good repair and available for use when appropriate (OSHA 29 CFR 1910.132(a)). PPE is tested as required by manufacturer or code.	4	4	2	3	13
F	First aid supplies, equipment, including eyewash bottles and blood pressure monitors, and a current first aid reference document are available.	0	4	2	3	9
F	*The cafeteria tables are cleaned and sanitized between each use.	0	2	4	4	10

Remember, the higher the score, the higher the priority.

Step Four: Action Planning & Implementation

- How do we turn our assessment into actual improvements?
- One possibility is to use our Priority Planning Table to create a list organized by priorities.

Action Planning & Implementation-cont.

Sample Action Plan Table

Priority	Action Item	Timeframe		Person Responsible
		Start	Complete	
1	Personal protective equipment is in good repair and available for use when appropriate (OSHA 29 CFR 1910.132(a)). PPE is tested as required by manufacturer or code.	10/3/14	10/7/14	Ben Jones (Chemistry Teacher); Beth Morris (Nurse)
Comments/Working Steps:				Completed ☒
Chemistry lab has insufficient number of goggles for largest class – identify appropriate goggles and order for immediate shipment; Clinic needs new sharps container and process for regularly checking for replacement				
2	Portable banquet tables, cafeteria tables and other portable furniture items, when not in a position intended for use, are stored in a manner that is inaccessible to students or are secured to the wall or floor to prevent injuries from tipping.	10/7/14	10/10/14	Joe Smith Custodian
Comments/Working Steps:				Completed ☐
Discuss options with Joe – if we decide to store in cafeteria closet we will need to work with Coach Buckles to find an alternate place to store wrestling mats; if we decide to secure to wall we will need to purchase hardware and schedule installation around afterschool program				
…..				
10	HVAC systems have unobstructed air supply grilles or outlets and air return grilles or inlets with no rigged baffles, deflectors or barriers affixed.	11/1/14	6/30/14	Gretchen Lowery (Maintenance Supervisor)
Comments/Working Steps:				Completed ☐
Send memo to teachers to clear books from tops of unit ventilators; check monthly to assure vents are clear; develop short training on importance of ventilation in the classroom including why vents should not be blocked - implement during next teacher training day				
11	Gutters and drainage systems are in good repair and well maintained.	7/1/14	7/30/14	Joe Smith Custodian
Comments/Working Steps:				Completed ☐
Gutters have spots where covers are missing – not currently causing drainage difficulties, but should be attended to during summer maintenance work before next fall of leaves.				

Action items taken from Priorities Planning Table (highest numbered items first)

[Name of School]
Date Created 10/2/14

Action Planning & Implementation-cont.

Choose a timeframe for completion

- What is a realistic date based on resources required, personnel required, school schedule, and possible training that might need to be completed prior to implementation?

Action Planning & Implementation-cont.

Identify any anticipated barriers and how they might be overcome.

- To whom might we need to present our case?
- How will we present it?
- What resources may need to be raised?
- Who can help provide these resources?

Action Planning & Implementation-cont.

Set regular time to review progress.

- Don't fail to complete what you set out to do for lack of follow-through!
- Regularly assess how the plan is coming along and make adjustments as needed.

Action Planning & Implementation-cont.

Set a regular time to repeat assessment.

- Healthy school environments take maintenance to stay healthy.
- How often will you assess your facility and plan improvements?
- It is recommended that you do this at least annually, if not more often.

Guidelines – Train and Communicate

Step Five: Train and Communicate

- Training
  - Note during action planning what kinds of training may be needed

Sample Record of SEH Training

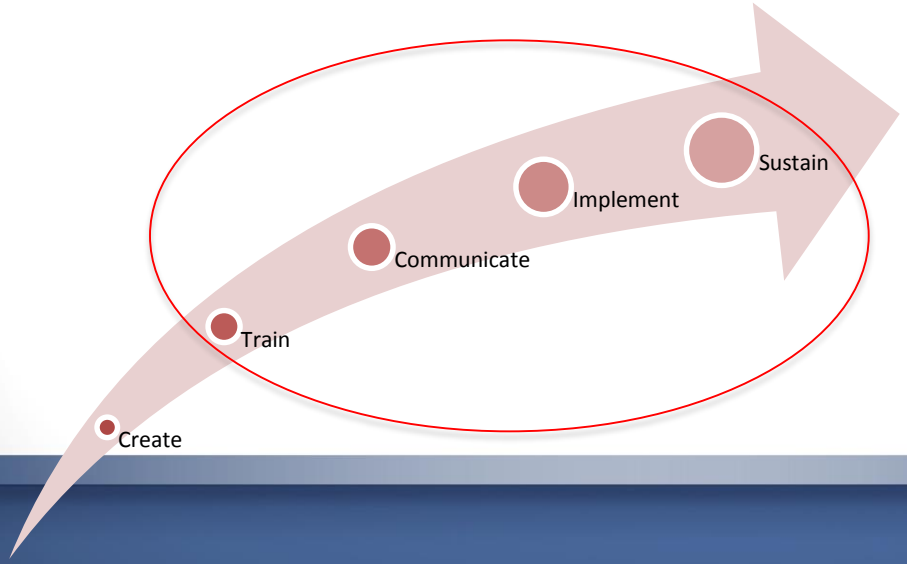
EH Concern Addressed	Trainer or Webinar	Date Trained	Attendees
PPE requirements and maintenance for Chemistry rooms and health care areas	Kim Morgan of PERRP	10/14/14	Chemistry teachers, school health care provider
Maximizing ventilation for comfort and health of building occupants	ODH ventilation webinar	1/15/15	Classroom teachers, administrative personnel
Building envelope; looking for signs of moisture intrusion	ABC Roofers	8/10/14	Custodial staff

[Name of School]
Date Created 10/2/14

DRAFT

Ohio Schools' Healthy Environment Network (OSHEN)

- Communications Network
  - Training
  - Networking
  - Funding Opportunities
  - Review, Updates, Support



OHIO SCHOOLS' HEALTHY ENVIRONMENT NETWORK
WHY YOU SHOULD JOIN *OSHEN*

1. LEARN:

You care about School Environmental Health (SEH) and want to keep up-to-date on important SEH topics!

- Updated and streamlined SEH guidelines will be developed in the coming months. Stay current on their progress; receive training on their implementation when they are completed
- Access webinars to be offered later this year on topics such as chemical management, mold and moisture control, playground safety, green cleaning and more
- Remain up-to-date on funding opportunities
- Gain insights on emerging school environmental health issues
- Be alerted to new tools and resources as they become available

2. NETWORK:

You care about School Environmental Health and want support!

- Register your comments about the updated SEH Guidelines
- Collaborate with other schools, staff, researchers, non-profit organizations and expert community members who share an interest in healthy school environments: Share your area of expertise; benefit from someone else's
- Build partnerships with businesses, colleges and universities, trade associations, schools, districts and public health organizations
- Become aware of SEH funding opportunities
- Mentor another school in its efforts to improve SEH
- Receive mentoring from a school that has a successful SEH program

3. SHOWCASE:

You care about School Environmental Health and want to hear the good news!

- Tiered public recognition for schools with exemplary school environments
- Share success stories and case studies of schools and districts that have improved school environmental health and are experiencing the benefits

To join OSHEN, scan the QR code or go to the SEH website at:
http://1.usa.gov/1gEMVDn
Using the link provided under OSHEN, register your contact information.

Join today!!

Ohio Department of Health- Bureau of Environmental Health- School Environmental Health

Examples of updates….

- EPA's National Clean Diesel Campaign (NCDC) is now accepting applications for the 2014 School Bus Replacement Funding Opportunity. This is a rebate program to replace older school buses in both the public and private fleets. The total funding for this opportunity is approximately $3 million. To learn more about the rebate program, applicant eligibility, and the selection process, please visit www.epa.gov/cleandiesel/dera-rebate-schoolbus14.htm.

- U.S. Environmental Protection Agency (EPA) released new guidance to help school districts protect indoor air quality while increasing energy efficiency during school renovations.

OSHEN Training Topics

- Radon
- Mold and Moisture in the School Environment
- Managing Athletic Facilities
- Hand Washing
- Dealing with Clutter
- Maintaining Flow Hoods and Exhausts
- Indoor Air Quality
- Animal Management
- How Environments Affect Children's Health
- Electrical Safety
- Mercury in the School Environment
- Tobacco Free Policies
- Managing Lead

Step Five: Train and Communicate

- Communication
  - Why?
  - With whom?

Step Five: Train and Communicate

- Communication
  - How?
    - Proactive
      - Gaining Approval Tools
      - Staff Involvement in Assessment Process
      - Communication about what was found/action plans
      - Communication about success
    - Reactive
      - Following an incident

CREATING HEALTHY SCHOOL ENVIRONMENTS

Voluntary Guidelines for Ohio Schools

DECREASE ABSENTEEISM • INCREASE ACADEMIC PERFORMANCE
GAIN LONG TERM FINANCIAL RETURN

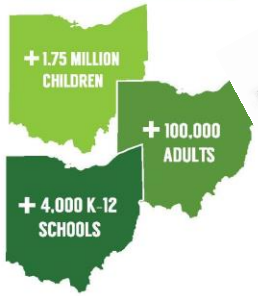
Creating Healthy School Environments: (v.) Inspect, improve and maintain facilities to create healthy learning environments favorable to increased attendance and academic performance while saving money in the short and long term.

The new school environmental health guidelines have been developed to assist Ohio's nearly 4,000 K-12 schools in inspecting, improving, and maintaining the environmental health of their facilities. Improvement in school health across the country has been strongly linked to significant positive impacts including reducing illness in students and staff, increasing standardized test scores, and improving financial wellness.
For references on school environmental health studies visit:
http://1.usa.gov/1gEMVDn

Implementation of this project can be initiated by teachers, staff, students, administrators, and other educational personnel in order to transform schools into healthy learning environments.

The Creating Healthy School Environments project recognizes the limitless capabilities of all Ohio children. Schools that utilize this project will publicly reestablish their commitment to improve the health and safety of their facilities to best support their students' futures.

OHIO SCHOOL STATS



JOIN OSHEN

http://1.usa.gov/1gEMVDn

3 STEPS TO CREATING HEALTHY SCHOOL ENVIRONMENTS → 1 ASSESS → 2 IMPROVE → 3 MAINTAIN

Ohio Department of Health

9

Communication Newsletter Article #2

As you may have heard, [Name of School], has undertaken to implement the newly updated School Environmental Health Guidelines that were created by the Ohio Department of Health and a panel of representatives from school and public health organizations. The benefits of implementing this program include creating an environment that is conducive to learning and health for all building occupants, increasing cost effectiveness, improving community relations, increasing teacher retention, decreasing absenteeism, and improving academic performance.

[Name of School] recently completed an assessment of the building and developed an action plan to address issues found during this assessment. You may be noticing some improvements or repairs that will improve the health of our school environment. Here are some examples of things that we'll be working on:

- Insert some pro-active things you will be working on
- Insert some items of repair with dates, if possible

Thank you in advance for your cooperation and collaboration during this process. If you have any questions or concerns, please contact [name and contact info of school representative].
Check here for updates on our progress.

Step Six: Recognition!

- Share your successes
- Apply for ODH award
  - Decide on level
  - Verify the steps completed
  - Provide key documents
  - Obtain letters of support

CREATING HEALTHY SCHOOL ENVIRONMENTS

Application for Recognition

Name of School:
School Environmental Health Coordinator:
Contact Phone Number/Email:
County:
Date of Application:

Guideline level applied for:

- ☐ Bronze - Fundamental
- ☐ Silver - Fundamental and Enhanced
- ☐ Gold - Fundamental, Enhanced and Optimal

[Name of School] has:

- ☐ Gained approval for implementation of School Environmental Health Guidelines
- ☐ Assessed its facility using guideline checklists
- ☐ Completed a priority planning process (ex. Priority Planning Table, pg. 65-66)
- ☐ Created an action plan (ex. Action Planning Table, pg. 75-76)
- ☐ Trained building occupants as necessary (ex. Training Table, pg. 79-80)

Required Documentation:

- ☐ Original Assessment Checklists
- ☐ Priority Planning table (or equivalent) that details findings of assessment and chosen priorities
- ☐ Action Planning table (or equivalent) that details steps taken (includes timeframes, responsible person and when items were completed)
- ☐ Record of training
- ☐ Two independent letters of confirmation of actions taken and all checklist items achieved for selected level of recognition (letter from local health department preferred, but others are acceptable – e.g., local business or professional organization, PTA)

VOLUNTARY GUIDELINES FOR OHIO SCHOOLS - Recognition 93
Ohio Department of Health

Recognition – con't

- ODH Recognition
  - Seals
  - ODH press release (optional)
  - Graphics
  - Newsletters/web announcements
  - Success stories
  - More to come!

Q&A

ASK
QUESTIONS

Individual Contact Information

Mandy Burkett
Chief, Tobacco and Indoor Environments Section
614-644-7553
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