

# School Action for Safety and Health (SASH)

Promoting Injury and Illness Prevention Programs for School Employees



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## SASH Training Program Instructor's Notes

2013

# Introduction to this Training Program

The School Action for Safety and Health (SASH) Program was initiated in California by the California Commission on Health and Safety and Workers' Compensation to help school districts reduce the high rate of work-related injuries and illnesses among school employees. The program has been developed and implemented by the Labor Occupational Health Program (LOHP) at the University of California Berkeley.

In addition to a series of resource materials, the SASH program offers a day-long training to help build the capacity of districts to develop and implement effective health and safety programs. Individuals targeted for the training program have been maintenance and operations supervisors and lead workers; lead custodians; human resource personnel in charge of district workers' compensation programs; and key personnel in food service, transportation, teaching and other professions. The program has provided training to over 700 California school employees since 2010.

LOHP, with funding from the National Institute for Occupational Safety and Health (NIOSH), has adapted the SASH program for a national audience. All materials and this training program have been revised to reflect federal OSHA requirements. We encourage you to use these Instructor's Notes and the accompanying materials to promote effective health and safety programs in the school districts in your state. For more information, contact:

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## Learning Objectives for the Training Program

By the end of this course, participants will be able to:

1. Explain the impact of work-related injuries and illnesses on workers, employers, and society.
2. Describe the benefits of prevention efforts.
3. Identify the underlying factors that contribute to workplace injuries and illnesses, including hazards on the job and how the work environment and job tasks are organized.
4. Describe the elements of an effective injury and illness prevention program.
5. Describe leadership roles training participants can take to help prevent injuries and illnesses in their workplaces.

# Preparing to Teach This Course

1. Set a date and location for the training. We recommend holding the training in a room with tables that can seat 4-8 participants for small group work. Recruit participants from your district's schools or from multiple districts. We recommend particularly recruiting personnel from the maintenance and operations department, human resources, lead custodians, department supervisors from food service, transportation, etc. as well as union representatives.
2. Make sure you have copies of the resource materials including factsheets, tools, the poster, the resource list, and worksheets for the course (see [www.lohp.org/projects/sash.html](http://www.lohp.org/projects/sash.html)). Insert all materials into binders or folders. Create a sign-in sheet, evaluation form and a certificate of completion. Make copies of the form and individual certificates for training participants.
3. Make sure you have the PowerPoint slides for the course (see [www.lohp.org/projects/sash.html](http://www.lohp.org/projects/sash.html)).
4. Bring a flipchart (preferably two), markers, laptop computer, LCD projector, and screen.
5. Prepare a course agenda for distribution at the training program that includes times and activities (see below for a sample agenda).

# Sample Agenda

- 8:30**            **Welcome and Introduction to the SASH Program**
- 8:45**            **Rating Your District's Health and Safety Program**
- 9:15**            **Why Injuries and Illnesses Occur -- A Look at Underlying Causes of Injury**
- 10:00**          **Break**
- 10:15**          **Hazard Assessment -- Identifying Hazards in the School Environment**
- 11:15**          **Hazard Control -- Addressing Safety Problems for School Employees**
- 12:00**          **Lunch**
- 1:00**            **Making the Case for Safety**
- 2:00**            **Involving Employees in Your Safety Program – Developing a Communications Plan**
- 2:30**            **Break**
- 2:45**            **Establishing an Effective Health and Safety Committee**
- 3:15**            **Making Your Health and Safety Program Successful**
- 3:55**            **Next Steps, Evaluation of the Training and Awarding Certificates**
- 4:00**            **End of Training**

# Instructor's Notes

## PPT (PowerPoint) Slide #1 -- Intro Slide

### 8:30 Welcome, Introductions and Overview

- Welcome participants to the School Action for Safety and Health (SASH) training program and introduce trainers. Thank any hosts and/or sponsors.
- Introduce the training program:

This training program has been adapted from the SASH training program in California which was developed by the Labor Occupational Health Program at the University of California Berkeley to help California school district staff and administrators address the high rate of work-related injuries among school employees. Funding for this national version of the program came from the National Institute for Occupational Safety and Health (NIOSH).

There is more information about California's SASH Program at <http://www.lohp.org/projects/sash.html>.

## PPT Slide #2 -- Goals of the SASH training program

The goal of this SASH training program is to help school districts create effective health and safety programs for school employees.

You've been invited to this training because of the role you play, or will play, in helping improve your district's safety program for school employees.

Specifically, this training program will prepare you to:

- Identify the full range of potential hazards in your district's schools and uncover underlying causes of injury and illness.
- Evaluate and participate in efforts to reduce or eliminate common job hazards in schools.
- Participate effectively on a health and safety committee.
- Communicate effectively with, and serve as a resource to, school administrators and school employees regarding health and safety.

This is not just a health and safety class but also a leadership class. So, we will be spending time planning the actions you will be taking back at your districts following the training.

- Review agenda, logistics.
- Have trainees introduce themselves.

Let's start by meeting each other. Tell us your name, district, job title and what your health and safety responsibilities are in your district.

- Review the SASH materials.
  1. The Factsheets provide general information about health and safety issues for school districts.
  2. The Tools include checklists and other resources that can be used to identify problem areas and track your progress in addressing them. We will be referring to the different factsheets and tools as we go through the class.
  3. The Tip Sheets are occupation-specific information sheets for employees in your district. There are seven different tip sheets. Our hope is that you will photocopy them for the employees within these occupations.
  4. The poster, *Schools Are Workplaces Too!*, is designed to be posted in public areas as a way to communicate with employees about your safety program. Be sure to write in the names and phone numbers of the people who should receive calls about health and safety issues for your schools and district.
  5. The Resource list provides contact information for key organizations and agencies that can help with technical assistance. LOHP also has an online resource guide that includes relevant factsheets on various additional topics relevant to schools. You can access the online resource guide on the California SASH website -- <http://www.lohp.org/projects/sash.html>.
  6. Finally, the Worksheets will be used in today's class.

Are there are any questions before we get started?

- Set ground rules for the training program. Record responses on a piece of flipchart paper.

It is a good idea to have some ground rules for the class. What ground rules do you recommend we adopt for this class?

The list of ground rules may include:

### **Ground Rules**

- Everyone should participate to the best of their ability.
- Any question you want to ask is OK.
- All new terms will be explained.
- Everybody should be treated with respect.
- Only one person should speak at a time. No side conversations.
- Everyone should come back from breaks, on time.
- All reading aloud is voluntary.
- Turn off cell phones and pagers during the class.

We also want to make sure we don't use acronyms or terms that everyone doesn't understand. So, we will start a flipchart with definitions. If anyone hears a term or acronym they are unfamiliar with, please let us know so we can add the definition.

- Discuss common types of injuries and illnesses among school employees.

In your experience, what are the most common types of work-related injuries or illnesses that school employees experience?

- Let participants respond and then tell the class:

What we hear from school employees is that the most common injuries and illnesses are overexertion, falls, and contact with objects or equipment. Injuries resulting from slips and trips, as well as assaults and other violent acts, are also relatively frequent.

The SASH training program hopes to help districts address health and safety issues so we reduce the high rate of injuries among school employees. Creating safe workplaces for school employees is something that can be accomplished if we all work together.

### **8:45 Rating Your District's Health and Safety Program**

- Introduce the elements of an effective health and safety program by asking for ideas from trainees. Record responses on a flip chart.

Let's briefly discuss what an effective health and safety program for school employees looks like. What would you say are the essential elements of a good health and safety program?

- Let participants respond and then show Slide #3:

### **PPT Slide #3 -- Elements of an Effective Health and Safety Program**

Here are the elements OSHA has identified as being important for an effective health and safety program. In many states with state OSHA programs, the state OSHA program also requires these elements.

The first element that is important is that someone be in charge -- **Responsible Person(s)**. This means that a specific person in your district has been assigned the responsibility, and given the authority, for employee safety. And, employees need to know who this person is. How many of you here feel this responsibility has been assigned to you?

Other elements include:

**Accident and Near Miss Investigations:** Accidents and near misses are investigated for underlying causes. This data is analyzed for hazards and underlying problems.

**Hazard Identification:** Inspections to identify hazards are conducted on a regular basis and job tasks are analyzed for potential safety and health risks.

**Hazard Control:** Steps are taken to eliminate or reduce hazards (e.g., engineering controls, work practices, appropriate personal protective equipment, etc.) in a timely fashion.

**Employee Involvement in Safety:** There is a system, such as a health and safety committee, tail gate meetings or suggestion boxes, for involving employees in the safety program and for encouraging them to speak up about workplace hazards without fear of reprisal. Employees receive information about the safety program and safety issues related to their jobs.

**Employee Training:** Health and safety training is provided to all employees about the hazards in their job and the safety procedures that will protect them. This training is provided in a manner they understand.

**Employee Compliance with Safety:** There are procedures for ensuring that all employees comply with the safety rules that have been explained to them.



**Record Keeping/Documentation:** Records are kept to help your district keep track of work-related injuries, workplace hazards, steps taken to address and control hazards, and employee training.

These are essential elements of an effective health and safety program as defined by OSHA. Refer the class to Factsheet A, *Effective Health and Safety Programs: Developing Your Injury and Illness Prevention Program*. Information about OSHA and important OSHA standards, is provided in Factsheets M and N.

There are other important elements of an effective safety program in addition to these 8 elements. It's also important to have:

**Emergency Preparedness:** There is an effective emergency preparedness program, including training and practice drills for all employees and students so they know what to do in different emergencies. Refer to Factsheet J, *Preparing for Emergencies at School*.

**Injury Reporting:** Employees know how to report work-related injuries and illnesses and do so without fear of reprisal. They are also encouraged to report symptoms early so steps can be taken to address the problem before the injuries get worse.

And,

**Workers' Compensation and Return-to-Work Programs:** There is an effective system for reporting work-related injuries and illnesses, for quickly processing workers' compensation claims, and for safely returning injured employees to work as quickly as possible. Employees have been informed of these procedures. Refer to Factsheet O, *Elements of an Effective Workers' Compensation Program*.

- Introduce the activity: *Rating Your District's Health and Safety Program*:

Next, let's assess how well your district's health and safety program is working currently. Take out Worksheet #1 -- This worksheet lists the essential elements that are part of a good health and safety program.

Take a minute to work alone, or if there are others here from your department or district, work together, to rate how well you feel your district is doing with regard to these elements. Then we will get back together and discuss areas that are working well and where the common gaps are in your programs.

So, let's hear from a few of you -- tell us: 1) what's working well, 2) what elements need work? (List what's working well and gaps on a flipchart.)

What's Working Well?

Gaps

This class will help prepare you to improve your current program and address the gaps. Since this is just a one day class, we will only be able to introduce ways of approaching these elements but remember there are lots of resources for you to use once you get back to your districts if you find you need additional help, including OSHA's Consultation Service. See the SASH Resource List.

During this class we will be giving you a chance to work with others from your district (or with us if you are here alone), to make a plan for the steps you will take to develop or improve your health and safety program when you get back to your district.

### 9:15 Why Injuries Occur -- A Look at the Underlying Causes of Injury

- Introduce this section of the training:

As we said earlier, many school district employees are being injured on the job. We are now going to talk about why injuries occur.

#### PPT Slide #4, Agree or Disagree?

- Read the statement on the slide aloud:

*"Most injuries and illnesses on the job happen because workers make mistakes or are careless."*

- Ask everyone to discuss this statement with their neighbor. They should discuss whether they agree or disagree, and why **they** think accidents happen. Give people five minutes for discussion, then ask the class:

How many of you agree with the statement? How many disagree?  
So, why do you think most job injuries and illnesses happen?

- Have people brainstorm a list of possible answers. List responses on a flipchart page. Responses may include:

#### Possible Causes of Injuries

- Being careless
- Making mistakes
- Not following proper procedures

- Not caring
- Think they are invincible
- Have always done it this way
- Not using common sense
- Inattention

**PPT Slide #5** -- Accidents in the News,

- Tell participants:

There are lots of reasons why employees get injured on the job. But as we can see from these news headlines, when accidents are investigated there can be a tendency to blame the worker for his or her own injury. This focus on individual behavior emphasizes what the worker did wrong. People say he or she was careless or not following the right procedures. This approach leads to a prevention strategy that tries to change the individual behavior of workers to get them to work more safely.

But often, if you look at a particular incident more closely, it becomes clear that multiple factors contributed to it. Even when a worker **did** make a mistake, we need to ask **why** that error was made. We should ask:

Are there conditions in the workplace that caused that mistake or made it very likely? What is it about these conditions that allowed a mistake to occur?

If procedures weren't being followed, **why** weren't they followed?

Is there something wrong with the systems, policies, or conditions in the workplace that should be changed?

If you don't find out the underlying reasons for why the accident/injury occurred, you won't get to the real issues that contributed to the accident. Underlying causes are the primary reasons for a workplace injury or a "near miss." They are the hidden safety problems that play a role in an incident and might contribute to the next one. They are conditions that make it harder for people to do their jobs, and make worker mistakes more likely.

**PPT Slide #6** -- Direct and Underlying Causes of Injury

- Tell the class:

This slide shows one way of thinking about direct causes and underlying causes. Direct causes are like the top of an iceberg. Remember that most of the iceberg is hidden below the surface. This represents the underlying causes.

- Go back to the list, **Possible Causes of Injuries**, that was made earlier on a flipchart page. If participants included worker behaviors (such as not following procedures, being careless, or being in a hurry), ask them to think about why workers might behave that way. Let people respond, and then add to the list yourself:
  - Not enough training
  - A push for production that encourages shortcuts
  - Procedures that don't make sense or don't match the reality of the job
  - Fatigue after working long hours
  - Unreasonable work loads
  - Fear of complaining.

**PPT Slide #7** -- Underlying Causes of Injuries and Illnesses

- Tell the class:

Often there is a combination of underlying factors involved in an incident. When you look for underlying causes, you may find problems in each of these areas.

Look at the way **job tasks and procedures** are designed. For example, is the work pace too fast, are procedures confusing, is staffing inadequate, or is the workload too heavy?

You may also find problems in the **work environment**. For example, are workers having trouble with exposure to hazards, with equipment or tools, with the way the work area is set up, with the air quality, or with the temperature?

Look for problems with the **management and organization** of the workplace. For example, is there an inadequate safety program, a lack of involvement by all levels of management, a lack of resources committed to safety, poor communication, or no system for reporting problems?

See if there are factors involving the **individual worker or workforce** that contribute to a hazardous situation. These can include inexperience, inadequate training, fatigue, stress, and problems with communication.

Let's look at a story that illustrates this point. We are going to further practice this skill of investigating accidents by learning about an injured school employee and looking for the underlying factors that contributed to that injury. We will discuss the story together in a large group and work in small groups to identify the underlying causes and the solutions to the problem.

## PPT Slide #8 -- Marie's Story

- Read the following story aloud:

**Marie's Story:** Marie is a food service worker in the central kitchen of large school district. She uses a 6-foot high cart to move trays of food and dishes. When things are busy, the staff needs to keep the carts completely loaded so they can make as few trips as possible. When full, the cart weighs several hundred pounds.

Staff are told to push (not pull) their carts to put less strain on the back. When the carts are full, Marie can't see around her cart when she pushes and worries about hitting people. It's also hard to push the heavy cart over the areas where the floor tiles have cracked or separated.

Because she had to twist her body to pull the cart, Marie suffered a lower back injury. She was reprimanded by her supervisor for not following proper procedures.

- Ask the class the following questions.

Why did the supervisor think Marie got injured?

She didn't follow procedures because she pulled rather than pushed.

What was the supervisor's solution to this problem?

She reprimanded Marie for not following procedures, believing this would change her behavior in the future.

Did this solve the problem?

No.

Why not?

It didn't address the underlying causes of the injury.

What are some possible underlying reasons why Marie didn't follow the procedures?

- The cart was too tall to see ahead of it.
- It was hard to push the fully loaded cart over the broken tiles.

- The workload was too heavy. Marie needed to fill her cart rather than make extra trips.
- Maybe Marie didn't know she could speak up.

What are some possible solutions to these underlying issues?

- Redesign the carts so staff can see over the top.
- Use smaller, lighter carts.
- Fix the floor tiles or place rubber mats over the broken areas to make it easier to move the carts.
- Create a policy that the two top shelves of the cart be left open.
- Have more staff available to deliver food and dishes, so the carts don't need to be overloaded.
- Give staff enough time to take more trips.
- Encourage workers to speak up when there is a problem.

- Summarize this section by saying:

As you can see, solutions that deal with underlying causes are likely to be more effective in reducing injuries and illnesses. Just reprimanding Marie will not keep others from having the same injury. We need to look not only at individual actions but also at the policies, job tasks, procedures, and conditions that allowed that incident to occur.

- Refer to Tool#1 -- Accident Investigation tool -- and explain that this is a tool that can help them investigate accidents and near misses back at their district. Also refer the class to Factsheet B which outlines information about the underlying causes of injuries. Ask:

How many of your districts currently investigate accidents when they happen? Remember, when you do investigate accidents, you need to look at the underlying causes and address these if you want to prevent future injuries and illnesses.

#### **10:00 Break**

#### **10:15 Hazard Assessment -- Identifying Hazards in the School Environment**

- Provide an overview of hazards in the school environment (5 mins.).

One of the main reasons employees get sick or injured at work is because there are hazards on the job. Let's brainstorm a brief list of safety, chemical, biological, and other health hazards in school districts.

- Write on a flipchart two or three examples for each category of hazard. Explain that job hazards can be divided into the following categories:
  - **Safety hazards** can cause immediate accidents and injuries. Safety hazards can result in burns, cuts, broken bones, electric shock, or death.
  - **Chemical hazards** are gases, vapors, liquids, fumes or dusts that can result in poisoning, lung disease, skin irritation, or damage to other parts of the body.
  - **Biological hazards** are living organisms that can cause infectious diseases and allergies.
  - **Other health hazards** are additional workplace conditions that can make you sick. Examples are noise, heat, repetitive motions, and stress.
  
- Introduce Factsheet C-- *Job Hazards in Schools* as well as Factsheet H -- *Addressing Ergonomic Hazards*. Explain:
 

We don't have time to address specific health and safety issues such as ergonomics and emergency preparedness in this one-day class but these factsheets can help you think about the problems and solutions to these important issues.

**PPT Slide #9 -- Hazard Mapping Activity**

- Write the following areas on the flipchart. (You may want to adjust this list depending on the jobs of the people attending the class.)
  - playground/outside area
  - office; regular classroom
  - maintenance area
  - kitchen/food service area
  - vocational class
  
- Explain the Hazard Mapping activity.

To think a little more about the hazards in schools, we are now going to create hazard maps of different common areas of a school district.

Creating a hazard map involves drawing a simple floor plan (or outline) of a particular workplace, or of an area within the workplace. You will work in small groups to create a hazard map of one of these areas of a school. (Pick 4-5 of the above areas, depending on the size of the class.) Then you will show visually where the hazards are in that area.

I will pass out markers and flipchart paper. Use the **black** marker to draw the “floor plan” of the area on the flipchart paper. The floor plan should show the different work areas, major equipment or machinery, furniture, doors, windows, etc.

Then, mark the locations of the various hazards you might find in that area. Use the **red** marker to show safety hazards, the **blue** marker to show chemical and biological hazards, and the **green** marker to show other health hazards. Make sure you are focusing on the potential hazards to employees in that area.

- Refer to Factsheet C-- *Job Hazards in Schools* and the *Tipsheets* to help identify hazards.
- Let people sign up for the area they want to draw -- limit number of groups to 4 or 5 people per group.
- Give the groups 15 minutes to mark all the hazards in that area and then pick the 2-3 hazards they think are most important to address first.
- After 15 minutes, have each group report back describing all of the hazards on their map and identifying their top 2-3 hazards. Record this list of key hazards.
- Conduct a large group brainstorm of other tools, besides hazard mapping, that they could use to find out about the hazards in their schools. (Record the list.) This list could include:

#### **Tools for Investigating Job Hazards**

- Body mapping (shows symptoms workers have)
- Surveys or interviews with workers
- Inspections of the workplace
- Employer Injury and Illness Logs (OSHA 300 Logs) and/or workers' compensation records
- Accident/incident reports
- Health and safety committee's files of worker complaints
- Grievances filed about health and safety issues
- Manufacturer's data about hazardous products (chemical SDSs)
- Employee medical records
- Air monitoring and/or environmental monitoring



- Job task analysis (breakdown of tasks and associated risks)
- OSHA and/or other agency inspection data

Let's discuss three of these tools in more depth -- inspections, worker surveys, and workers' comp or injury data -- and think about how to use them, what information we can get from them, and what tips we have for using them effectively.

- Explain **worksite inspections**.

Conducting an inspection involves going around the workplace looking for hazards, or for situations that could cause an injury or illness. It is helpful to use some type of checklist when you do an inspection.

Inspections can help you get at these types of information:

- Which hazards are present and where they are located.
- Which job processes may be hazardous.
- Whether measures are in place to protect workers from the hazards.

What suggestions do you have for using this type of tool successfully?

- Be sure to talk to workers while conducting the inspection.
- Conduct inspections at different times of the day or on different shifts to study variations in work pace, staffing, and work processes.
- Revise the tool to reflect potential hazards specific to your own workplace.

- Explain **worker surveys**.

Surveys of workers can be used to get information about the health and safety concerns workers have.

Worker surveys can help you get at these types of information:

- Which issues workers are concerned about.
- Patterns of symptoms, illnesses, or injuries.
- Workers' opinions on the causes of injuries and illnesses.
- Workers' opinions on the best solutions to address problems

What suggestions do you have for using this type of tool successfully?

- Combine this method with other tools such as a worksite inspection.

- Revise the tool to reflect potential hazards or issues specific to your own workplace.
  - Share information with workers about why the survey is being conducted to encourage their participation.
  - Provide a safe environment for workers to answer freely. If necessary, offer to accept anonymous responses.
  - Be sure to reach workers at all work locations and on all shifts.
  - Ask people survey questions orally or in a small group, if necessary, if there are literacy issues.
  - Translate the survey into other languages if some workers do not speak English.
  - Before beginning the survey, think about how you'll summarize, interpret, and use the results.
- Explain **injury and illness data (workers' comp data or other injury data)**.

Where might you get this information in your district?

- Human resources, workers' compensation records, insurance companies, etc.

OSHA requires most workplaces to collect this information on their Log 300 form. All work-related injuries requiring more than first aid and illnesses are recorded, including the name and department the person is in, and the type of injury/illness. Even though schools aren't required by OSHA to use the Log, it is recommended as an important way to track illnesses and injuries in the district.

Injury and illness data can help you get at these types of information:

- The kinds of injuries and illnesses have occurred among workers.
- Where in the workplace these injuries and illnesses occurred. This can help identify patterns of injury and illness and therefore suggest what hazards might be causing them.
- Whether the injuries and illnesses were serious enough to result in lost work time.

What suggestions do you have for using this tool successfully?

- Combine this method with other tools such as a worker survey and a worksite inspection.
- Get help with the analysis of the data.
- Find out how the injury rates compare with what is typical for your industry.

- Point out Factsheet D -- *Investigating Job Hazards* as well as Tool #2 (Inspection Checklist).

### 11:15 Hazard Control -- Addressing Safety Problems for School Employees

- Explain:

The next thing to discuss is what to do about the hazards you identify. But first, let's talk about how to decide what problems you want to work on first.

- Post the flipchart page, *Key Hazards*, which the class created during the Hazard Mapping activity. Label a second flipchart page, *Prioritizing Health and Safety Problems*.
- Ask the class to think about the key hazards they identified during the Hazard Mapping activity:

What were two or three reasons you picked these particular hazards as priorities? How do you decide which problems are most important to solve?

- Brainstorm with the class a list of reasons that a hazard might be a priority. Record these reasons on the *Prioritizing Health and Safety Problems* flipchart page. Add reasons that the class doesn't mention. Your flipchart may include the following points:

**Prioritizing Health and Safety Problems**

A hazard may be a priority if:

- It could cause serious injuries or health effects—it is high risk.
- It affects the most people.
- It can easily be controlled.
- It is of great concern to workers.
- It violates OSHA or other legal standards.

As we saw from the hazard maps and from the list generated earlier, school districts face a lot of hazards. It would be hard to address every problem all at once, so you will need to prioritize. Since resources and time are usually limited, it's important to think about where to start in terms of addressing the hazards

you identify. There is no right answer as to which hazard to address first. The factors on this list can help you decide which problems to address first.

- Refer participants to Factsheet E, *Prioritizing Health & Safety Problems*, in their binder. Tell the class: Next we will discuss **how** hazards can be controlled.
- On a flipchart page, create a table with two columns. Head the left column **Hazards** and the right column **Possible Solutions**. Tell the class:

One very important task you can do back in your district is to support efforts to eliminate or reduce workplace hazards you have discovered. There are several different ways to address a safety problem.

- Write “slippery floors” in the **Hazards** column of your table and then ask the class:

What are some ways the hazard of a slippery floor can be reduced or eliminated?

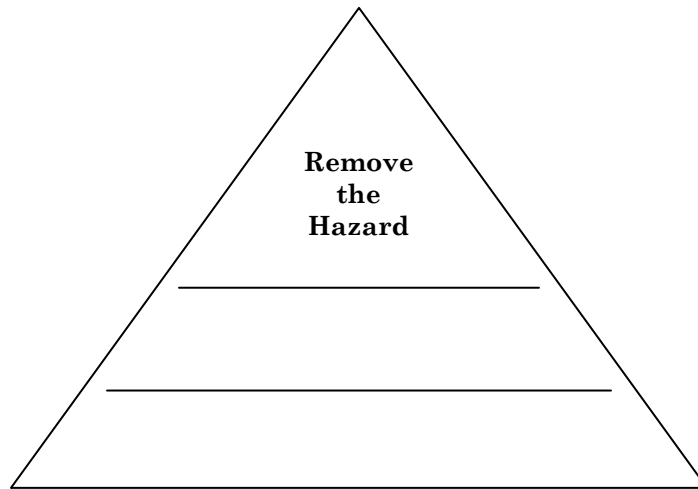
- As participants suggest answers, write them in the **Possible Solutions** column next to the hazard. Possible solutions for slippery floors might include:

Hazard	Possible Solutions
Slippery Floors	<ul style="list-style-type: none"> <li>▪ Put out “Caution” signs.</li> <li>▪ Clean up spills quickly.</li> <li>▪ Install slip-resistant tiles or flooring.</li> <li>▪ Use floor mats.</li> <li>▪ Wear slip-resistant shoes.</li> <li>▪ Install grease guards on equipment to keep grease off the floor.</li> </ul>

- Tell the class:

As we’ve seen, there are a number of ways to protect workers from hazards. But not all solutions are equally effective. We can think in terms of a pyramid or “hierarchy” of possible solutions, with the most effective kinds of solutions at the top.

- Draw a large pyramid on the chalkboard or a flipchart page. Divide the pyramid into three sections as shown below. Write “Remove the Hazard” in the top section.



- Explain possible ways to “remove the hazard”:

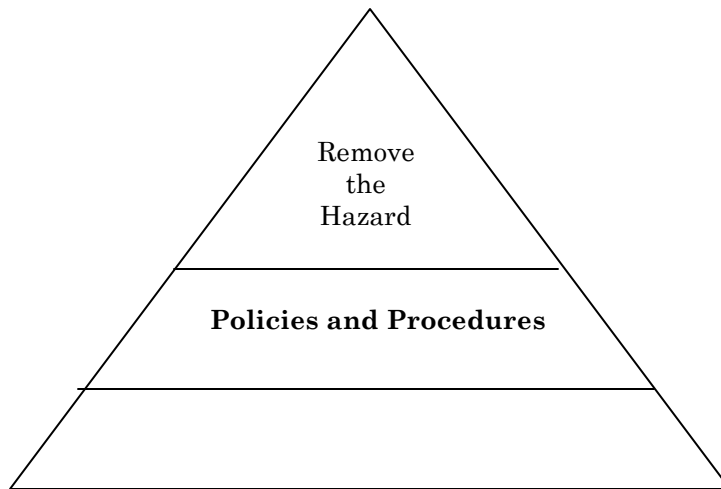
The best way to protect workers is to remove the hazard from the workplace altogether, or at least keep the hazard away from workers.

Some examples of “removing the hazard” are:

- Substituting safer chemical products, such as water-based products, for more toxic ones.
- Installing ventilation to remove chemicals from the air workers breathe.
- Putting guards on machines to prevent injuries.

These are called **Engineering Controls**. They are considered most effective because they get rid of the hazard at the source. They don’t rely on people to follow procedures and they don’t allow for shortcuts.

- Write “Policies and Procedures” in the middle section of the pyramid.



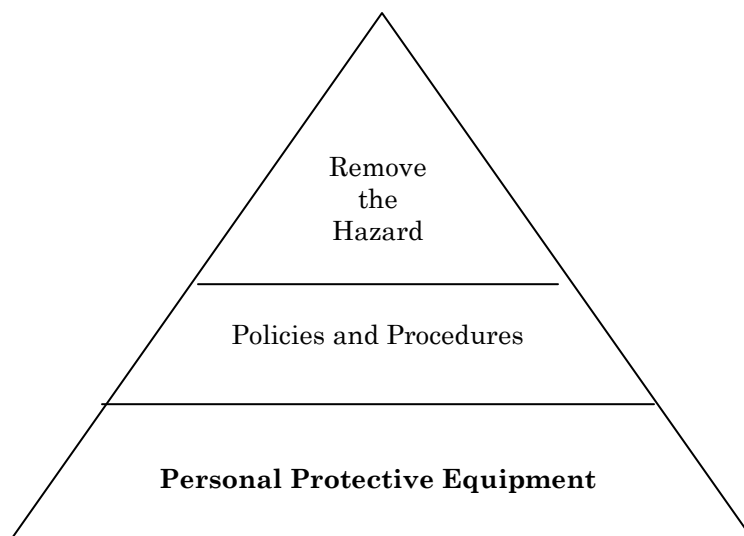
- Explain possible ways to use “policies and procedures” to control hazards:

Another way to protect workers is to set up work policies and procedures that cut down exposure to hazards by changing how the job is done. Examples are:

- Providing breaks.
- Requiring that two people always lift heavy objects.
- Training workers in safe work practices.

These are called **Administrative Controls**.

- Write “Personal Protective Equipment” in the bottom section of the pyramid.



- Tell the class about **Personal Protective Equipment**:

Personal protective equipment, or PPE, is worn on the body and protects you from exposure to a hazard. It includes gloves, goggles, respirators, earplugs, hard hats, coveralls, safety shoes, etc. PPE is used when other methods of controlling hazards aren't possible or don't give enough protection. Try to remove the hazard or change work policies or procedures first.

- Ask the class:

Why is PPE usually considered less effective than the other methods?

Possible answers include:

- It doesn't get rid of the hazard itself.
- Workers may not want to wear it because it is uncomfortable, hot, and may make it hard to communicate.
- It has to fit properly to work, and in many cases must be cleaned and inspected often.
- It has to be the right type for the particular hazard, such as the right respirator cartridge or glove for the chemical being used.
- Workers must know and remember how to use it properly.
- Some PPE creates its own hazards, such as heat, heavy weight, reduced visibility and hearing, and restricted movement.

- Summarize key points about the different control methods:

Sometimes you may need a combination of methods to control a hazard. Even when engineering controls are used, you also need training programs and other workplace policies and procedures. There may also be situations where PPE is essential even though it's the least effective method. For example, no matter what other controls exist, you should always wear a hard hat on a construction site or use a harness when working at heights.

- Save the Pyramid drawing for use as the game board in the next activity. Tell the class:

We will learn more about these control methods during the next activity. You will work in teams to play a game called the *\$25,000 Safety Pyramid Game*.

- Refer participants to Factsheet F, *Controlling Hazards*, in their binder. Tell them that this factsheet provides background information on ways to eliminate or reduce workplace health and safety hazards.

- Introduce the \$25,000 Safety Pyramid Game. Use the Pyramid chart you created during the last activity as a game board. Make sure it is taped to the wall at the front of the classroom. Tell participants:

During each round of the game, I will read aloud a story about someone who got hurt, killed, or sick on the job. Each team will have **one minute** to come up with ways this injury or illness could have been prevented. Each team will have a pad of Post-it notes on which to write its solutions.

For each story, your team may propose as many solutions as you can think of. Your team will pick **one person** to write down the solutions on the Post-it Notes. Write only one solution per Post-it Note. When the time is up, someone from your team should come up and post all your Post-it notes in the appropriate categories on the chart—in the “Remove the Hazard” category, the “Policies and Procedures” category, or the “PPE” category.

- Explain how points are calculated:

At the end of each round, I will look over the solutions and decide whether they will count for points. To be valid, a solution must:

- Relate to the story
- Be realistic
- Be specific (for example, not just PPE, but what kind of PPE)

Each valid “Remove the Hazard” solution is worth \$2,000. Each valid “Policies and Procedures” solution is worth \$1,000. And each valid “Personal Protective Equipment” solution is worth \$500.

If a team puts a good solution in the wrong category, I will move it to the correct category and give the team the appropriate number of points for that category.

We will play three rounds and the team that gets closest to \$25,000 wins the game.

- Have a second flipchart page for keeping track of points.
- Divide the class into 3-4 teams.
- Distribute a different colored Post-it note pad to each team. Have teams come up with team names. Write the team names across the top of a sheet of flipchart paper, where you will record the points. Have a timer available to keep track of the one-minute time limit for teams to write down their solutions.



- Tell each team to select one person to record each solution on a Post-it note. Also tell each team to select one person who will go up to the game board to post the team's solutions in the appropriate categories on the board. Instruct people that they cannot begin writing until you say 'go' and must stop when you say 'time's up'.
- Begin the game. Play 3-4 rounds.
- At the end of each round, review the solutions teams have posted and total the points for valid answers. It's a good idea to review all the solutions from one team before going to another team's solutions so you can catch any duplicate answers. You can identify a team's solutions by the color of its Post-it notes.
- Enter each team's points on the flipchart page where you write the team names. You may want to have other instructors help you judge the solutions. Mention any solutions the teams missed once the round has ended.
- When a team wins, award prizes to all its members. Or award everyone in class prizes for playing the game.

### Round 1

#### PPT Slide #10 -- Jamie's Story

- Read the story aloud:
 

Jamie is a dishwasher in a school kitchen. To clean cooking pans, she soaks them in a powerful chemical solution. She uses gloves to protect her hands and arms. One day, as Jamie was lifting three large pans out of the sink at once they slipped out of her hands and back into the sink. The cleaning solution splashed all over the side of her face and into her right eye. She was blinded in that eye for two weeks.
- Ask the groups:
 

What might have prevented the injury?

#### Possible Solutions

**Remove the Hazard.** Substitute a safer cleaning product. Use disposable pans. Use a dishwashing machine.

**Policies and Procedures.** Have workers clean one pan at a time. Give workers training about how to protect themselves from chemicals.

## Personal Protective Equipment. Goggles.

### Round 2

#### PPT Slide #11 -- Stephen's Story

- Read the story aloud:

Stephen worked in the loading area of the district's warehouse. One day while unloading heavy boxes from a truck onto a wooden pallet, he felt a sharp pain in his lower back. He needed to stay out of work for a week to recover.

- Ask the groups:

What might have prevented this injury?

#### Possible Solutions

**Remove the Hazard.** Use a mechanical lifting device. Pack boxes with less weight.

**Policies and Procedures.** Assign two people to do the job. Train workers how to lift properly.

**PPE.** None.

- If back belts are suggested, give the class this information:

Some people are given back belts as personal protective equipment. Back belts have been studied extensively, and experts have concluded that they are not effective in preventing back injuries.

Some believe that, in fact, they may cause injury to your back by putting pressure on soft tissues and organs and making muscles weaker. Most importantly, they do not make you stronger or better able to perform a lift that is awkward or too heavy.

The National Institute for Occupational Safety and Health (NIOSH) recommends that employers **not** rely on back belts to protect workers. Instead, it recommends that employers implement a comprehensive ergonomics program that includes workplace assessment, hazard reduction, and worker training.

**Round 3** (Select one of the following two stories or use both and conduct a 4<sup>th</sup> round.)

## PPT Slide #12 -- David's Story

- Read the story aloud:

David worked as a painter in a large school district. One day, while working on a metal extension ladder that was leaned against a building, he reached way over to one side and the ladder slipped along the metal cap of the building, he lost his balance and fell 12 feet to the concrete sidewalk. David sustained massive head injuries. He was listed in critical condition at an area trauma center.

- Ask the groups:

What might have prevented this injury?

### Possible Solutions

**Remove the Hazard.** Use a mechanical lift that raises up the worker (like a cherry picker machine). Or use a scaffold. Tie off the ladder at the point where it comes in contact with the wall.

**Policies and Procedures.** Train workers in the safe use of ladders. Require a policy that ladders must be positioned one foot out from the wall for every four feet of the ladder's height up to the point where it comes in contact with the wall. Require good ladder safety practices such as not reaching out too far.

**PPE.** Personal fall protection systems (harnesses) must be used when working above 7 ½ feet.

## PPT Slide #13 -- Keisha's Story

- Read the story aloud:

Keisha worked as school secretary entering data. She frequently worked six hours at a time without a break. After several weeks, she began to experience pain in her shoulders and both of her wrists. It was so severe it woke her up at night.

- Ask the groups:

What might have prevented this injury?

### Possible Solutions

**Remove the Hazard.** Provide ergonomic equipment. This might include an adjustable table and chair set up to minimize awkward positions of hands and wrists.

**Policies and Procedures.** Provide additional breaks. Reduce workload by increasing staffing.

**PPE.** None.

If participants mention wrist splints, explain that these are medical devices that doctors may prescribe as part of treatment for a repetitive strain injury. They are not designed to **prevent** injury and may cause further harm if used while working in awkward positions.

- Summarize this activity. Tell the class:

When there's a health and safety problem at work, try to come up with a variety of different ways to solve it. Then select the most protective solution as your goal, or consider a combination of methods.

Sometimes the most protective solution is hard to achieve—it may require new resources, redesign of equipment or tools, or more staffing. So, while working toward your long-term goal (like a new ventilation system), you may need short-term solutions (like respirators) in the meantime.

- Refer participants to Factsheet F, *Controlling Hazards*, in their binder. Also tell participants that they can use Tool #3 -- Hazard Correction Tracking Form, or your work order system, to keep track of your efforts to solve your safety problems.

## **12:00 Lunch Break**

## **1:00 Making the Case for Safety**

- Introduce the next activity. Tell the class:

Next we will discuss how to “make the case” for safety. We’ll look at ways to approach district administrators about a particular health and safety problem, propose the solutions you want, and effectively make the case for controlling hazards. Often the most important role of a health and safety leader is to get buy-in from those who have the authority to make changes.

We’ll start by reading aloud a scenario. Then you will work in a small group to brainstorm ways to address the problems presented in the story. Your group will then prepare a skit showing how to make a convincing argument to those in

charge for implementing the best solution to the problem. Groups should be prepared to present your skits to the rest of the class.

- Ask people to take out *Worksheet #3, Communicating the Case for Safety*, from their course binder. This has the scenario and instructions.
- Read the scenario aloud:

A large district in the middle of the state has a warehouse for storing operations supplies, paper goods, and various types of equipment. Sharon, the administrator handling workers' compensation claims for the district, and Matt, the warehouse supervisor, have noticed an increase in the number of back injuries among employees working in the warehouse.

Matt feels the district either needs to bring in more employees to do the lifting involved or to get the district to purchase an electric fork lift so employees don't have to lift too much on their own.

Sharon mentions the problem to Dennis, the Assistant Superintendent for Business Services, who feels electric forklifts cost too much and that the district can't afford to hire more employees. Dennis believes that Matt just needs to train his employees to lift properly.

Matt and Sharon believe training alone would not solve the problem since the materials are too heavy and awkward to be lifted safely. They decide to approach Dennis to make the case for the more effective solutions.

- Ask the class the following questions about the story:

What was the health and safety problem raised in this story?

- The employees are being injured because they are lifting heavy objects.

What solutions did Matt and Sharon propose?

- Buy a new electric forklift.
- Hire more people to do the job

What were Dennis' concerns?

- Lack of money for equipment.
- Can't afford more staff.

- Explain that you will now divide the class into small groups. Explain that each group will develop an argument to convince Dennis to implement their safety suggestions for addressing the problem presented in the skit, even if these suggestions cost money. After discussing their arguments, each group should come up with a skit to demonstrate how Sharon and Matt (and anyone else they would like to bring along) would present their points to Dennis. They should be prepared to act out their skit in front of the class. To the person playing the role of Dennis, explain that we know budgets are tight but that they should remain open and receptive to ideas presented to them.
- Divide the class into 3-4 small groups. Give the groups 15 minutes to work together and prepare their skits.
- After 15 minutes, bring the class back together for the small group skits. At the end of each skit, ask participants to list the strategies the group used to make the case. List the strategies on a flipchart. Hold off discussing the strategies until all skits have been presented. When all the skits are completed, ask the whole class the following questions to facilitate discussion:
  1. What approaches did you like and why?
  2. Is there anything you would do differently? Do you have any additional suggestions for making the case effectively?
- Review Factsheet G, *Making the Case for Safety*.

## **2:00 Involving Employees in Your Safety Program – Developing a Communications Plan**

- Introduce this topic:

We have said that an essential element of an effective health and safety program for employees is making sure that there is communication with employees about safety and establishing ways for them to be involved. Why is it important to involve employees in safety?

Answers may include:

- The people doing the work know best what the hazards are and can often identify the best solutions.
- It helps encourage employees to take responsibility for their own safety and to watch out for their co-workers.
- When employees know the employer cares about their safety and is interested in identifying problems early, they are more likely to report problems and symptoms before they become larger issues.

- It helps get employees bought into the safety program.
- Refer the class to the SASH tip sheets and SASH poster. Explain that these were designed to help them communicate with employees about safety.
- Explain the small group activity:

Now we are going to explore these concepts in a little more depth. I'm going to divide you into three small groups. Each group is going to be assigned a question. That question will be written on a flipchart paper. We want you to work together in your small group to read and answer the question. Come up with as many ideas in response to the question as you can in the 10 minutes we will give you. If you have extra time, talk with each other about how you might actually follow through and do these things in your own district(s). Then, we want you to present the ideas on your flipchart to the rest of the class.

- Write the following questions on separate sheets of flipchart paper (one question per sheet):
  - A. What are things your district might do to encourage employee involvement in your health and safety program?
  - B. What methods might you use to encourage compliance with safety rules?
  - C. What are the key messages you think your district should convey to your employees about safety and your program?
- Divide the class into three groups. Post the flipchart sheets around the room and send each group to a flipchart sheet. Provide each group with a marker. Have the group members stand together at their flipchart paper and talk about and record their responses. After 10 minutes, have each group present to the rest of the class in the following order:

#### Group A

What are things your district might do to encourage employee involvement in your health and safety program?

#### Possible Responses:

- encourage employees to join the health and safety committee
- have a suggestion box
- have rewards for good safety ideas
- distribute worker surveys
- alternate the duty of doing inspections

## Group B

What methods might you use to encourage compliance with safety rules?

Possible Responses:

- To the extent possible, make sure employees are involved in developing the rules -- to ensure the rules are appropriate, make sense, and that there is, therefore, buy-in
- Make sure employees have received up-to-date training about the rules
- When employees don't follow the rules, first ask "why" in an effort to uncover underlying problems that make it hard to follow the rules and therefore need addressing
- Have a system that is fair and provides for warnings before disciplining.

## Group C

What are the key messages you think your district should convey to your employees about safety and your program?

Possible Responses:

- Safety is everyone's responsibility
  - Look out for co-workers
  - Speak up about safety problems
- Review OSHA training requirements listed in Factsheet K, *Communicating with Employees about Safety*. Tell participants they can use Tool #4, Employee Training Record to help them keep track of employee training.

### **2:30 Break**

### **2:45 Establishing an Effective Health and Safety Committee**

- Review health and safety committees and the roles they can play.

How many of you currently have a health and safety committee in your district?

Tell us about them -- Who is on it? How often do you meet?

- Write the following sentence on a flipchart page -- *Health and Safety Committee Activities* and then record responses to the following question on a flipchart page.



What are some things your committee does?

Possible Responses:

- Review injury data, accident reports, and workers' compensation records.
  - Conduct regular walk-around inspections.
  - Design and conduct health and safety surveys of workers and supervisors
  - Collect and review chemical Safety Data Sheets (SDSs).
  - Propose and evaluate various ways to improve safety conditions.
  - Establish or improve procedures for employees to report safety hazards or suggest improvements without fear of reprisal.
  - Investigate accidents, including their root causes.
  - Develop systems for reporting accidents and "near misses."
  - Educate workers and supervisors on health and safety issues.
  - Plan and organize training programs for workers, supervisors, and managers.
  - Establish or improve procedures for employees to report health symptoms.
- Introduce the topic of making health and safety committees effective.

We've talked about the roles of workplace health and safety committees. Now we're going to talk about how to create an effective committee. To do this we will listen in on a health and safety committee meeting. Please pull out Worksheet #4 from your binder.

- Ask for four volunteers who are comfortable reading in front of the class. Assign them each a character and have them look over the dialogue. When they are ready, explain the setting and introduce the four characters to the class. Then have the volunteers enact the role play for the class.

**Setting:** A health and safety committee meeting.

**Characters:** **Hank:** School district risk manager

**Cindy:** Assistant Superintendent of Financial Services

**Maria:** Experienced employee, Maintenance and Operations department

**David:** Newer employee, food service

*Hank:* OK. Let's get started. I think I can get us out of here pretty quickly. There isn't too much on the agenda. Could everyone please sign the attendance sheet?

*Cindy:* Were we supposed to get an agenda? I didn't see one.

*Maria:* It doesn't matter; we never really talk about anything anyway.

*Cindy:* Well, this is my first meeting and I'd really like to know what we are responsible for here.

*Maria:* We just listen to the same old reports. I've tried to tell Hank that there really are some things folks are concerned about, but we never talk about them or follow-up. Right, David?

*David:* Huh? Sorry, I wasn't really listening. I had to get to work really early this morning and had to stay around for this meeting after hours.

*Hank:* Maria was saying that there are a lot of complaints out there. Is that right? If people have problems they really should let me know. That's my job. I can't keep things safe if nobody will speak up!

*David:* I don't really know. I'm not here to make waves. In fact, I don't even know why I got picked for this committee.

*Cindy:* This doesn't feel very productive. I don't think any of us can afford to be wasting our time. Speaking of which, where are the rest of the senior managers? I thought we were all supposed to be on this committee.

*Hank:* We can't afford to release so many senior managers. I can just send my report to everyone by e-mail.

*Cindy:* Maybe for the next meeting we could get everyone to attend and talk about what we are really supposed to be doing here.

*Maria:* And shouldn't we talk about some of the safety concerns we have, too?

*Hank:* Fine, let's adjourn for now.

- After the volunteers read the role play, ask the class:

What's going on at this meeting? What problems do you see?

- Record responses on a flipchart. Possible answers include:
  - No agenda was circulated in advance.
  - There is a lack of clear goals and purpose.
  - Some members are frustrated that nothing gets done.
  - There was no discussion of real safety problems.
  - Senior managers who have authority to make changes did not participate and were not encouraged to participate.
  - Members don't know why they're there.
  - Some members don't get release time to attend during work hours. For example, David is participating after his shift.
  - The risk manager (Hank) appears to dominate the meeting. He may feel threatened and so is not encouraging others to participate.
  - At least one member (David) fears "making waves" and seems to believe he'll get in trouble.
  - There is no system for listening to employee concerns or following up on them.

- Ask the class the following questions and add responses to the same flipchart page.

Is your own experience with committees similar to or different from this situation? In what ways? What other issues or problems have your committees faced? (Add these issues/problems to the flipchart page.)

- Title a flipchart page "Tips for Effective Committee Meetings" and ask the class:

What are some key things you learned through this role play about how to make health and safety committees more effective?

- As people respond, record their answers on the flipchart page. Possible responses include:
  - Planning your strategy and arguments in advance is important.
  - There should be equal participation and shared responsibility by employees and management.
  - There should be release time for members to attend meetings and carry out other committee responsibilities during work hours.
  - People on the committee should be interested in health and safety and be committed to being there.
  - Training should be conducted for committee members.

- The committee should have clear goals and a purpose that is agreed upon by all members.
  - The agenda should be developed jointly by employees and management, and sent out to everyone in advance.
  - Management should demonstrate its commitment by providing adequate resources and by encouraging people with authority to attend meetings.
  - The committee should have procedures to encourage all workers and supervisors to report hazards and make safety suggestions without fear of reprisal.
  - There should be a system to keep track of action items and follow-up on tasks.
  - The committee should publicize its success.
- Conclude this activity by telling the class:

You've created a very good list of tips for creating an effective health and safety committee.

- Refer the class again to Factsheet L -- *Health and Safety Committees*. Suggest that they write in any additional tips that came up during the class activities. Summarize this section:

In summary, health and safety committees can be instrumental in developing, implementing and evaluating a workplace's health and safety program. Having a strong workplace health and safety program is essential for reducing employee injuries and illnesses which also means saving money in direct costs (such as workers' compensation claims and paying for temporary help/substitutes) as well as indirect costs (such as retraining and decreased employee morale, etc.)

### **3:15 Making Your Health and Safety Program Successful**

#### **PPT Slide #14 -- Effective Health and Safety Programs**

- Tell the class:

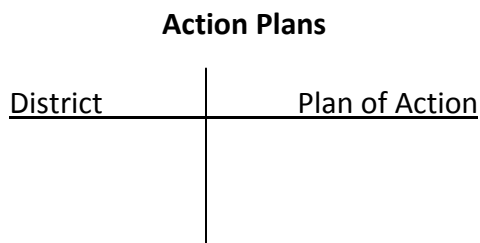
We've spent the day going over the elements of a successful health and safety program. Just to review -- an effective health and safety program for employees has:

- Responsible Person(s) -- someone is assigned to safety that has the authority to make changes
- Accident/Exposure Investigations -- accidents and near misses are investigated, looking for the underlying causes.

- Hazard Identification -- school sites are regularly inspected for hazards
- Hazard Control -- hazards are corrected in a timely manner
- Employee Involvement in Safety -- there is communication with employees about safety and there are established ways of involving employees in safety
- Employee Training -- all employees receive training when they first start about the hazards in their job and then whenever their job changes
- Employee Compliance with Safety Rules -- the district makes sure employees follow safety rules
- Recordkeeping/Documentation -- records are kept in order to keep track of your program
- Emergency Preparedness -- the district prepares for all kinds of potential emergencies and conducts practice drills
- Injury Reporting -- there is a system to encourage reporting
- Workers' Compensation and Return-to-Work Program -- when there is a compensable injury, employees know how to file a claim and then are helped to return to work as soon as it is safe to do so.

What we are going to do next is revisit your rating sheets and the gaps you identified and have you choose an element you want to work on first to either establish or improve. Pull out Worksheet #1 again as well as Worksheet #5 -- Action Plan. Work individually or with colleagues from your district. Take 5-10 minutes to fill out the first 3 questions on page 1 (what needs to be improved; what needs to be done to improve it; and why you chose this program element).

- Report back on Action Plans. Write the following on a flipchart paper:



- Ask each school district to report on what they chose to work on first and why they selected this element. Name the district and the action planned.
- Next, give everyone another 5-10 minutes to fill out as much of the rest of the worksheet as they can. Then have groups call out some of the challenges they identified that they think they will face. List these on a flipchart. Then, pick several challenges to discuss and share ideas they have for overcoming these challenges.

- Explain that each person should look over their plan after class and think about what other people need to be involved in their plan, what ideas they have for getting buy-in, and what resources they need.

### **3:55 Next Steps, Evaluation of Training Program and Awarding SASH Certificates**

#### **PPT Slide #15 -- Resources for More Information**

- Refer to the SASH online Resource Guide. Explain:

The SASH online Resource Guide is an extensive set of links if you want to find out more about how to develop an effective health and safety program or find out more about specific hazards in schools.
- Ask participants to complete their evaluation form.
- Provide certificates of completion.

### **4:00 End of training program**