A PRIMER OF YOUNG WORKER SAFETY AND HEALTH TRAINING FOR EMPLOYEES



MODULE 2/3- A PRIMER OF YOUNG WORKER SAFETY AND HEALTH: LESSON PLANS

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Contact: www.youngworker.gatech.edu

or email: youngworker@gtri.gatech.edu

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A Primer of Young Worker Safety and Health Training for Employees

MODULE 3: OVERVIEW

This training was developed to provide instruction for young workers (defined as those ages 15-24). This course is designed to be presented as four distinct lessons during a 6-8 hour workshop class.

This interactive, hands-on training will cover the following topics:

- Introduction to Young Worker Injuries and Illnesses
- Identification of Workplace hazards (e.g. chemical, biological, safety, and other health hazards.
- Personal Protective Equipment
- Finding a Voice—Speaking up and against workplace hazards
- Taking Action
- Young Worker Rights and Responsibilities
- An Overview of Young Worker Labor Laws

Included in this booklet are the lesson plans for training, copies of the slides to be used for instruction, and indicators on how to tie all the lessons together with activities, class participation, or other forms of media.

Each topic has a separate lesson plan developed to assist teachers with instruction. These lesson plans include a detailed objective for the training, focused ideas that promote enduring understanding and answer essential questions, the total duration for the lesson, the materials and equipment necessary to conduct the lesson, and any additional notes for the instructor.

Acknowledgements

The authors wish to acknowledge valuable source material taken from the Youth @ Work: Talking Safety curriculum, documents from the OSHA website, resources provided by the Centers for Disease Control and Prevention and the National Institute of Occupational Safety and Health, and the Work Safe, Work Smart: Health and Safety Awareness for Working Teens curriculum, the OSHA's 11 Curriculum, and the WorkSafe BC Lost Youth video. Additional materials were gathered from various sources that are cited throughout the presentation.

MODULE 3 CURRICULUM A PRIMER OF YOUNG WORKER SAFETY AND HEALTH TRAINING FOR EMPLOYEES

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INTRODUCTION OF THE COURSE

Introduction

This course was developed for delivery to young workers, ranging in age from 14 to 24 years old. The course contains four distinct lessons covering the following topics:

- Introduction to Young Worker Injuries and Illnesses
- Identification of Workplace hazards (e.g. chemical, biological, safety, and other health hazards.
- Personal Protective Equipment
- Finding a Voice—Speaking up and against workplace hazards
- Taking Action
- Young Worker Rights and Responsibilities
- · An Overview of Young Worker Labor Laws

For each lesson in this booklet, you will find a lesson plan, any additional materials, and the accompanying slides in that section. There is a supplemental handout packet that corresponds to the lesson plans and slides for this course.

Prior to beginning the lessons, go over the first four slides with the class. These slides include a title slide, an acknowledgement of sources, a course agenda outlining the four topics, and the "Tying it all Together" section.

Tying it all Together

The "Tying it all Together" slide is intended to focus the instructor's and students' attention to potions of the lessons where there should be class participation. Types of recommended participation include:

- a Puzzle piece which represents an activity that the students can do individually or as a group,
- a Movie reel which represents ways to integrate media into training, and
- a Microphone which represents ways to involve students to participate.

All the images are shown on slide 4.



A Primer for Young Worker Safety and Health Training

Training Module 3

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Acknowledgement of Sources





National Institute for Occupational Safety and Health Centers for Disease Control and Prevention

National Young Worker Safety Resource Centers Labor Occupational Health Program, U.C. Berkeley Education Development Center, Inc., Newton, MA



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http://www.cdc.gov/niosh/talkingsafety/ Introduction to OSHA

http://www.osha.gov/dte/outreach/construction_generalindustry/teachingaids.html

 $\frac{Work\,Safe, Work\,Smart:}{Work\,Smart:} Health \ and \ Safety\ Awareness for\ Working\ Teens\ curriculum.$ University of Washington: Dept. of Environmental and Occupational Health Sciences. Washington State Dept. of Labor and Industries.

OSHA's 11 – An OSHA 10 Hour General Industry Curriculum: University of Washington: Dept. of Environmental and Occupational Health Sciences. Washington State Dept. of Labor and Industries.

Course Agenda

- Lesson I:YoungWorker Injuries and Illnesses
- Lesson 2: Identification of workplace hazards (including chemical, biological, safety, and other health hazards)
- Lesson 3: Ways to reduce young worker injuries and illnesses
 - Personal Protective Equipment
- Lesson 4: Young worker rights and responsibilities-An overview of Young Worker Labor Laws

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Tying it All Together



 The Puzzle piece represents an activity that participants can do individually or as a group



 The Movie reel represents ways to integrate media into training



 The Microphone represents ways to encourage participation

LESSON 1: YOUNG WORKER INJURIES AND ILLNESSES

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Objectives:

The students will be provided with a basic overview of the importance of young worker safety and health training. In particular, training will be provided on general young worker safety and health, employee rights under OSHA regulations, and young worker rights as defined by Department of Labor child labor laws.

Enduring Understanding(s):

- The students will be able to identify ways that young workers get injured on the job.
- The students will be able to recognize the impacts that injuries and illnesses have on employees and other involved parties.

Essential Question(s):

- What are the ways that young workers get injured on the job?
- What are some of the reasons young workers get injured on the job?

Total Duration: 1-2 hours

Materials and Equipment:

- -Dry erase board or flip chart and markers. (Alternatively, a chalkboard and chalk may be used.)
- -Use PowerPoint slides with a laptop and LCD projector. (Alternatively, PowerPoint slides may be printed onto Overhead transparencies and used with an overhead projector)
- -Lost Youth video/DVD
- -Speakers
- -Where possible, provide a computer with Internet access
- -Handout A

Notes for instructor:

This lesson is meant to educate students about the importance of young worker safety and training. This lesson is meant to last approximately one to two hours depending on the level of interaction and discussion with class participants. Before teaching this lesson:

- 1. Determine the technology capabilities at the location of training. Where possible, use a laptop, LCD projector, and screen.
- 2. Obtain markers and either a flipchart, cling sheets, or a dry erase board to be used for activities.
- 3. Download the WorkSafe BC video: Lost Youth and provide speakers for the viewing of the video.
- 4. Determine Internet access capabilities for the training location.
- 5. Define the audience: employers, educators, young workers, parents to emphasize each group's focus to reduce young worker injuries and illnesses during the training.

	Lesson One: Young Worker Injury and Illnesses				
Activity Time Materials Description			Description		
A. Young Worker Injuries and Illnesses - Statistics	5 minutes	Slides 5-10	Discuss the statistics associated with young workers in the workplace. Explain the risk factors associated with young workers: Hazards on the job Inexperienced Developmental factors Some working in violation of child labor laws Lack of training & supervision Less likely to speak up or question authority Potential Underreporting		
B. Young Worker Injuries and Illnesses – Impact of Injuries	10 minutes	Slide 11	Engage the students in a warm-up discussion related to their own personal work-related experiences. Ask the students: 1. Have you ever been hurt at work, or do you know someone who was? 2. Have you ever been uncomfortable with a task you've been asked to do at work? Provide time for the class to discuss their answers.		

C. Young Worker	20	Slide 12	Lost Youth video/DVD. Video can be viewed at:
Injuries and	minutes	Shac 12	http://www.worksafebc.com/publications/default.asp_,
Illnesses – Impact			purchased from the Worksafe BC website, or accessed
of Injuries			on www.youtube.com (in search box enter: lost youth
			worksafe bc)
			Warning: two versions of this video exist: an edited version and an unedited version. The unedited version does contain some profanity. Video also contains graphic images of young worker injuries. Viewer discretion is advised.
			As an alternative, show the NIOSH- Talking Safety Teen Worker Video: Teen Workers: Real Jobs, Real Risks, which can be found at:
			http://www.cdc.gov/niosh/talkingsafety/video.html.
			Provide time at the end of the presentation of the video for any reflections the students may have made during the viewing of it.
			Alternative Activity: Provide a copy of Handout A to students to use to write down reflections of the video and injuries to be discussed in Activity D. This handout
			can be used either in class or as a take-home exercise.
D. Voung Worker	20	Clidos 42 24	Share:
D. Young Worker Injuries and	20 minutes	Slides 13-21	Sildle:
Illnesses – Impact	minuces		Slides 13-21: examples of real-life young worker injuries
of Injuries			(Alternatively, share current newspaper articles documenting young worker involved in a workplace accident/exposure)
			Ask the students:
			Imagine this happened to you: How would it change your life? Would you still be able to keep your same hobbies/interests?
			What role does the employer play in keeping workers safe?
			What role does the worker play in keeping him/herself safe at work?

E. Young Worker	5	Slides 22-23	Explain that in the event that an employee is injured
Injuries and	minutes		while performing their job, the employer is required to
Illnesses –			keep a record of the injury.
Reporting			Tell students that all workplace injuries (no matter how big or small) should be reported to the supervisor/employer.
			Examples might be a cut from a knife, something getting into your eye, falling and bruising your leg, tripping and straining your wrist when grabbing something for balance.
			Explain how the employer might ask questions to help them determine how the injury occurred so they can prevent it from happening again, and to help them determine whether it must be recorded on a special form called the OSHA 300 log.

References

NIOSH and CDC. (2010), Youth@Work Talking Safety: Teaching Young Workers about Job Safety and Health. Department of Health and Human Services, Public Health Service, Centers for Disease Control, National Institute for Occupational Safety and Health. NIOSH Publication No.2007-136.

OSHA. (2010), <u>Introduction to OSHA Presentation</u>. United States Department of Labor, Occupational Safety and Health Administration.

WorkSafe BC (2003) Lost Youth - Four stories of injured young workers. WorkSafe British Columbia.

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Young Worker Injuries and Illnesses

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Occupational Injuries and Deaths Among Young Workers^

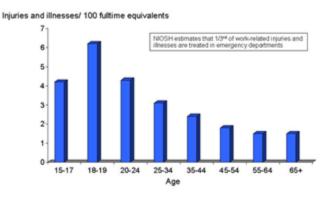
- Younger workers (defined as those aged 15-24 years):
 - Represent I4% of the U.S. labor force
 - Overrepresented in dangerous jobs: construction, transportation, agriculture, and mining.
 - > 2009: there were 343 fatalities among this group
- Workers under 25 years old were twice as likely to end up in the emergency room when compared to those aged 25 and older

^Centers for Disease Control and Prevention. Morbidity and Mortality Weekly Report. April 23, 2010, Vol. 59, No. 15,

Occupational Injuries and Illnesses



Rates of Work-Related Injuries and Illnesses Treated in Emergency Departments by Age Group, United States, 2006*



*Centers for Disease Control and Prevention, Charts on Young Worker Employment, Injuries and Illness

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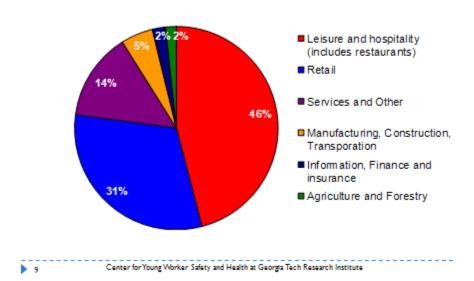
Teen Specific Work Injury Statistics

- Many youth are injured on the job in the US:
 - ▶ 158,000 <18 year-olds injured/year
 - 52,600 <18 year-olds to the ER for work injuries
 - ▶ 38 <18 year-olds die each year

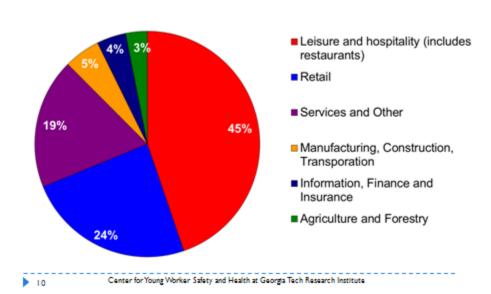
▶ 8

Young workers are injured at a higher rate than adult workers.

Where Teens are Injured



Where Teens Work



Sharing Work Related Experiences



- How many of you have ever had a job?
- Where did you work?
- What did you do?
- Have you ever been hurt at work, or do you know someone who was?
- Have you ever been uncomfortable with a task you've been asked to do at work?



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Experiences of Injured Young Workers

- Lost Youth video/DVD.Video can be viewed at: http://www.worksafebc.com/publications/default.asp, purchased from the Worksafe BC website, or accessed on www.youtube.com (in search box enter: lost youth worksafe bc)
- NIOSH- Talking Safety Teen Worker Video :
 Teen Workers: Real Jobs, Real Risks

http://www.cdc.gov/niosh/talkingsafety/video.html

Injury Report: Babysitting 🌁

- 15 year-old babysitter
- Watching 3 month-old and 5 yearold at home
- Heating water for bottle on stove
- Dish towel catches fire
- In panic, babysitter is unable to locate fire extinguisher
- Evacuates house with children and calls 911
- House is engulfed and all treated for smoke inhalation



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Injury Report: Concert



- ▶ 18 year-old employee
- Working at a summer music amphitheater
- Responsible for working on the security team
- Stampede ensued when the gate is cracked open
- Employee suffers broken bones and nightmares after being trampled



Injury Report: Housekeeping 🌁



- I 5 year-old team member
- Picking up trash and emptying trash bin in the restroom
- Improperly disposed of diabetic needle sticks team member in the hand
- Several months later team member tests positive for HIV

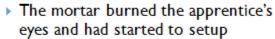


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Injury Report: Masonry Apprentice



- 20 year-old brick laying apprentice
- Carrying a bucket of mortar on shoulder
- While setting the bucket down mortar splashed up into the apprentice's face and eyes



- The patients' eye had to be scraped
- Resulting in hospital stays, operations, and potential permanent loss of vision in one or both eyes



Injury Report: Lifeguard



- 17 year-old lifeguard at neighborhood pool
- Required to sit in life guard stand for 2 hour stretches
- Temperature outside is 95 degrees and sunny
- During the last rain storm the umbrella was blown away
- One lifeguard called in sick and pool is filled to capacity
- Life guard passes out and is rushed to the hospital
- Diagnosed with heat stroke



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▶ 18

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Injury Report: Childcare



- 16 year-old assistant at childcare center
- Mixing bleach and water to disinfect toys and tabletops
- Accidentally mixed bleach with what she thought it was water
- Chlorine gas was released requiring the classroom to be evacuated
- Assistant and 2 children treated for respiratory irritation



Injury Report: Restaurant 🌁



- 17 year-old dishwasher at restaurant
- Responsible for operating dishwasher conveyor-belt system
- Sleeve was caught in conveyor belt during loading and arm was pulled into machine
- Employee suffered severe burns to his arm after contacting the dish washer water



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Injury Report: Convenience Store



- 18 year-old clerk at quick-service mart
- Closing up store at night; emptying register
- One other employee was taking out trash in back of store
- Gunman entered and demanded money and lottery tickets
- Clerk was not physically harmed, but unable to return to work



Injury Report: Laboratory Safety



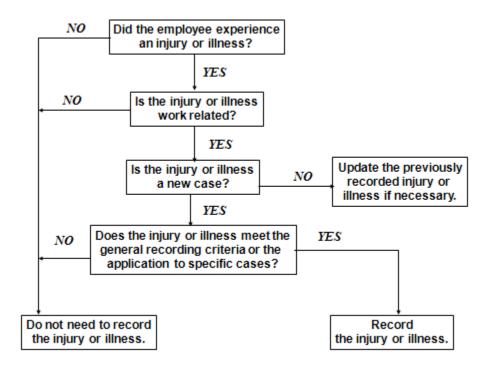
- 19 year-old student is employed as laboratory assistant for college chemistry class
- Preparing chemical materials a class on the laboratory workbench
- Student assumed the chemical in container was the material he needed and combined it with another chemical
- A violent chemical reaction occurred and sprayed up onto face and neck of student
- The safety drench shower did not work when he pulled the lever
- Student suffered permanent tissue damage to face and eyes



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Injury and Illness Reporting

- OSHA 300 log and 30 l
 (Injuries and Illness Incident Report)
- Questions you might be asked
 - What time did you start work?
 - What time did the event occur?
 - What were you doing just before the event occurred?
 - In your own words, tell us what happened?
 - What was the injury or illness?
 - What object or substance directly harmed you?



LESSON 2: IDENTIFICATION OF JOB HAZARDS

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Objectives:

The students will be provided with a basic overview of the importance of young worker safety and health training. In particular, this lesson is designed to outline the types of job hazards that exist in different work environments.

Enduring Understanding(s):

- The students will be able to identify ways that young workers get injured on the job.
- The student will begin to be able to categorize the different types of job hazards.
- The students will learn the basic principles for identifying hazards.
- The students will learn how to read and interpret Material Safety Data Sheets.
- The students will learn about the hazards associated with exposure to noise.

Essential Question(s):

- What are different types of job hazards?
- How might injuries occur on a job site and what impact might that have on their lives?
- How do you recognize hazards in a workplace?
- How can a Material Safety Data Sheet be used to identify hazards?
- How can exposure to noise lead to hearing loss and tinnitus (ringing in the ears)?
- What are the basic principles to identifying hazards?

Total Duration: 1.5 - 3 hours

Materials and Equipment:

- Dry erase board or flip chart and markers. (Alternatively, a chalkboard and chalk may be used.)
- -Use PowerPoint slides with a laptop and LCD projector. (Alternatively, PowerPoint slides may be printed onto Overhead transparencies and used with an overhead projector)
- -Where possible, provide a computer with Internet access and speakers
- -Copies of Handouts B and C and example Material Safety Data Sheets
- -Marker and large sheets of papers for students
- --GERTI- Jolene Inspired Dangerous Decibels mannequin with a sound level meter in her ear for testing the volume of personal music devices

Notes for instructor:

This lesson is meant to educate young workers about the importance of young worker safety and training. This lesson is meant to last approximately 1.5 to 3 hours depending on the level of interaction and discussion with class participants. Before teaching this lesson:

- 1. Rectangles with titles in each of the activity columns represent a separate flip chart sheet that should be used for each individual activity.
- 2. Determine the technology capabilities at the location of training. Where possible, use a laptop, LCD projector, speakers, and screen.
- 3. Obtain markers and either a flipchart, cling sheets, or a dry erase board to be used for activities.
- 4. Make copies of Handouts B and C and an example of a MSDS.
- 5. Make sure that GeRTI is properly connected and has fresh batteries.
- 6. Determine Internet access capabilities for the training location.
- 7. Define the audience: employers, educators, young workers, parents to emphasize each group's focus to reduce young worker injuries and illnesses during the training.

Lesson 2: Identification of Job Hazards				
Activity	Time	Materials	Description	
A. Introduction: What is a Job Hazard and how might it harm you? Health Effects	10 minutes	Flipchart Markers Slides: 24-27	 Discuss with the students the basic definition of a job hazard. Explain that a wide range of possible job hazards exist. Review the differences between "temporary" and "permanent" injuries and illnesses. Review the differences between "immediate" and "delayed" health effects. Flip Chart Activity: Brainstorm Injury/Illness Effects examples using the Effects categories onto the Effects Chart. Use Table 1: Example Health Effects Chart included below if needed. Discuss whether the brainstormed injuries/illnesses are "temporary/permanent" and/or "immediate/delayed". 	
B. Defining the Hazard Types Hazard Categories	10 minutes	Handout B Flipchart Markers Slides: 28-30	 Provide Students with copies of Handout B Tell the class that hazards can be divided into five categories: Safety hazards can cause immediate accidents and injuries. (Examples: knives, hot grease, etc.) Chemical hazards are gases, vapors, liquids, or dusts that can harm your body. (Examples: cleaning products or pesticides.) Discuss how chemicals can get into the body. Biological hazards are living things that can cause sickness or disease. (Examples: bacteria, viruses, or insects.) Other health hazards are harmful things, not in other categories, that can injure you or make you sick. They are sometimes less obvious because they may not cause health problems right away. (Examples: noise, radiation, repetitive movements, heat, cold) "Pressure Cooker or Unspoken" hazards (unsafe equipment or procedures; emergency situations: fires, explosions, severe injury, violence; stressful conditions; inadequate training; inadequate supervision; deadlines, production requirements, etc.) 	

	1		
			3. Activity: Brainstorm examples within the categories using memories or personal experiences onto the Hazard Chart. As students call out possible hazards, decide as a group whether they are a safety, chemical, biological, other health, or pressure cooker hazard and write them into the appropriate category. Encourage students to think about all kinds of workplaces. If necessary, suggest from the list provided in Table 3: Example Work Places. *Note, ensure students are brainstorming hazards or causes of injuries and illnesses, not effects. For example, a student may call out "cuts" (effect) as a safety hazard instead of knives (cause). Refer to Table 2: Example Hazard Chart included below if necessary.
C. Identifying Hazards: How to Start	5 minutes	Handout B Slide 31	Discuss with students the methods that they may begin to identify hazards when they are working. These options may include: 1. Ask your supervisor for help 2. Get Training on the chemicals or equipment you will use 3. Check the label of the products you will use 4. Read the Material Safety Data Sheet (MSDS) for the chemicals or products being used
			5. Look online for safety and health information- Handout H- provides a listing of resources 6. Call a resource agency like OSHA for more help Ask the students what other options they have for the identification of hazards.
D.	10-20	As an	Understanding Chemical Exposures
	minutes	introduction to	Onderstanding Chemical Exposures
Understanding Chemical Exposure (Optional	illillutes	Slides 32-33	Many workplaces require handling chemicals – whether as part of the job task, or to clean up after a spill or just as part of general housekeeping. Some chemicals could be the same products you use in your own home,
Lesson)			others could be very different.
			Brainstorm as a class what type of chemicals might be encountered on a job site. [Use the Example Hazard Chart: Chemical column if necessary.] Encourage students to think beyond chemicals that come in containers, and to include chemicals that are generated as a result of performing a work activity (such as carbon

			monoxide when running a car).
			Consider the following Questions for discussion:
			-Question: How do chemicals get into the body? How can chemicals harm the body?
			-Answer: Chemicals can get into the body by breathing them in, swallowing them, or getting them on your skin. [Review with students how chemicals can unintentionally be swallowed when they are transferred from unwashed hands to food, drinks, makeup, cigarettes, etc.] Chemical exposures can cause many different health effects or symptoms. Exposure to some chemicals may cause dizziness and breathing problems right away (an immediate effect). Other chemicals, if they get on your skin, can immediately cause a severe burn or destroy your skin tissue. For some chemicals, over time, continued exposure to a chemical could result in cancer, or injury to a specific organ in your body, such as your liver (delayed effect).
			-Question: How can we find out about chemicals and how to protect ourselves?
			-Answer: Your employer is required to provide you with information about the types of chemicals you might work with at your job. They must train you on how to use the chemicals safely, or what to do if there is a chemical spill or emergency. Chemicals used in a workplace should also have information on their container labels, and chemicals have an informational document called a "material safety data sheet" or MSDS that should be stored in an accessible location at your place of work. MSDSs are information sheets that manufacturers must send to companies along with their chemical products. They tell you what is in the product, how it can harm you, and how to protect yourself.
E. Material	10 -60	Handout C	Discuss the following information with the students:
Safety Data Sheets	minutes	Slides 32-33	 Material Safety Data Sheets (MSDSs) are used to provide safety and health properties of workplace chemical products. Review with the students the information required to be provided on a MSDS:
			a. The identity used on the label.
			b. Chemical and common names - may be the same

as #1.

- c. Physical and chemical characteristics of the hazardous ingredients (e.g., flash point, appearance and odor).
- d. Physical hazards (e.g., combustible, unstable).
- e. Health hazards (e.g., corrosive) plus signs and symptoms of exposure and medical conditions aggravated by exposure.
- f. Primary route(s) of entry (e.g., inhalation).
- g. Air exposure limits (e.g., PEL, TLV).
- h. Carcinogenicity.
- i. Precautions for safe handling and use (e.g., storage, waste disposal).
- j. Control measures (e.g., personal protection).
- k. Emergency and first aid procedures.
- I. Date of preparation of MSDS.
- m. Name/address/phone number of responsible party.
- 3. Go over the benefits and limitations using MSDSs:
 - a. Benefits of MSDSs include:
 - i. They contain detailed health information
 - They tell employees how to protect themselves and what employers should be doing to protect employees
 - iii. They provide information on what to do in an emergency
 - iv. They provide information on safe storage, exposure limits, and incompatibility
 - b. Limitation of MSDSs include:
 - i. MSDSs may be missing information
 - ii. May be difficult to read
 - iii. May contain inaccurate information
 - iv. Different suppliers of the same chemical may contain different hazard information
- 4. Using Handout C, provide students with either a MSDS related to a chemical they will be working with or one of the two provided chemical MSDSs. Ask them to answer the questions on the MSDS worksheet using the MSDS as a guide.

Activity using slide 33 and Handout C (alternatively, this could be given as homework)

 Divide the students into groups. Hand-out an MSDS for ammonia. Give the students a few minutes to look over the MSDS. Post the following list of questions via

F. Identification	10	Flipchart	Powerpoint/overhead and instruct the students to use the MSDS to find the answers. Instruct them to write down their answers and whichever team correctly finds all answers the fastest wins. 2. Questions: 3. What is the percentage of ammonia in this product? What is the other ingredient in this product? [27-31%; water] 4. Is ammonia a corrosive? What is a corrosive? [yes; a corrosive causes irreversible damage to the body] 5. What happens if you get ammonia in your eye? [burns that could result in temporary or permanent blindness] 6. What should you do if you accidentally swallow ammonia? [do not cause vomiting] 7. What would happen to your body if you accidentally ingested ammonia? [swallowing could cause severe burns of the mouth, throat, stomach, leading to death. Ingestion could also cause sore throat, vomiting, and diarrhea] 8. What kind of protection should you wear on your body to protect yourself? [goggles and faceshield; lab coat and apron; proper gloves] Referring back to the hazard chart and building off
of Job Hazards (example)	minutes	Markers	what was just discussed regarding ways to identify hazards, remind students that all workplace injuries or
		Slides: 22	illnesses are caused by hazards. Depending on class, this hazard list could be used for mapping within a specific industry (for example, by asking shop students "which hazards from this list might be found in a cabinetry shop?" Asking cosmetology students "which hazards from this list might be found in a salon?"
Workplaces			 Ask the students to think about places they have worked, or workplaces with which they are familiar and call them out. Write the suggested workplaces onto a flip chart list.
			3. Using one of the workplaces suggested by the students, draw a floor plan of the suggested
			workplace on another flip chart sheet, including walls, doors, windows, equipment, work areas. You
Example of Hazard			may also ask for a student volunteer to draw the
Mapping			map. Ask the students to call out possible job

G. Identification 20+		hazards and to classify the job hazard as a safety, chemical, biological, or other hazard as they call out the example. Use colored markers to code the job hazards on the floor plan as follows: - Red to show safety hazards - Green to show chemical hazards - Orange to show biological hazards
	Flinchart	- Blue to show other health hazards - Brown to show "Pressure Cooker" hazards - Divide the class into groups. Have each group select a
	Flipchart	Divide the class into groups. Have each group select a
of Job Hazards (Activity) Sheet for each group	Markers	workplace from the brainstormed list. Provide flip chart paper and markers, and have each team complete their own hazard mapping activity, following the example just completed. Have each group share their maps with the class.
H. Noise and 10-20	Slides 35-38	Begin the activity by asking the students how loud they
Hearing Loss minutes Prevention	Audio: "Demonstration of Noise Induced Hearing Loss" NIOSH Sound Level Meter GeRTI	think noise has to be before it causes hearing loss. Ask the question: How Loud is too loud? * Exposure to noise at 85dbA for 8 hours a day will cause permanent hearing loss * The amount of time of exposure to sounds determines the potential for hearing loss. Discuss with the students that work-related hearing loss is a critical issue and that noise-induced hearing loss is 100% preventable. However, once noise-induced hearing loss is acquired, it is a permanent and irreversible condition. Discuss that noise is an exposure that is found not only in the workplace, but at home as well.
		Noise-induced hearing loss is hearing loss due to exposure to a sudden, loud sound, or exposure to loud

sounds over a period of time.

Approximately 36 million Americans are affected by hearing loss. And 10 million of those cases can be directly attributed to exposure to dangerous sounds.

<u>Tinnitus</u> is a hissing, ringing, buzzing, or combination of other sounds in the ear that are caused by damage to the ear or brain.

Approximately 50 million Americans have tinnitus.

Using the NIOSH Sound Level Meter (which can either be downloaded from:

http://www.cdc.gov/niosh/topics/noise/noisemeter.html onto the computer or played directly from the internet, where internet access is available), show the difference between various sounds.

Play the demonstration of Noise Induced Hearing Loss, which can be downloaded from http://www.hse.gov.uk/noise/demonstration.htm)

Ask the students what their thoughts are about the potential to experience noise induced hearing loss.

Ask the students what they believe their daily exposures to noise is, and what they could do to reduce their exposure to noise. Introduce GeRTI, the mannequin with a sound level meter inside her ear. Ask the students to bring up their personal music listening devices to determine what their exposure to noise is when listening to music. Ask the students how long they typically listen to music each day. Using slide 38, determine how long the student could listen to music at that level before starting to experience hearing loss.

Take home message is:

- 1. Turn down the volume
- 2. Walk away (put as much distance as possible between your ears and the sound source)
- 3. Wear hearing protection

Young Worker Safety and Health Training for Employees

E. Conclusions	5	Slide: 39	Go over the objectives of this lecture, as outlined in the
and Summary	minutes		beginning of this lesson plan.
			Answer student questions.
F. Hazards in	60	Slides: 40-43	Please refer to pages 32-35 of this document for
the Workplace:	minutes		instructions on conducting this workshop session.
Advanced			
Workshop			
Session			

References

NIOSH and CDC. (2010), Youth@Work Talking Safety: Teaching Young Workers about Job Safety and Health. Department of Health and Human Services, Public Health Service, Centers for Disease Control, National Institute for Occupational Safety and Health. NIOSH Publication No.2007-136.

OSHA. (2010), <u>Introduction to OSHA Presentation</u>. United States Department of Labor, Occupational Safety and Health Administration.

<u>Work Safe, Work Smart</u>: Health and Safety Awareness for Working Teens curriculum. University of Washington: Dept. of Environmental and Occupational Health Sciences. Washington State Dept. of Labor and Industries.

Young Worker Safety Resource Center, <u>OSHA'11: An OSHA 10-hour curriculum for Young Workers</u>. University of Washington- Pacific Northwest OSHA Education Center, U.C. Berkeley Labor Occupational Health Program, Education Development Center, Inc.

Dangerous Decibels, <u>Educator Resource Guide</u>, <u>Version 2.0</u>. Oregon Health and Science University, Portland, Oregon.

^{*} This material was produced under grant number #SH-20848SHO from the Occupational Safety and Health Administration, U.S. Department of Labor. It does not necessarily reflect the views or policies of the U.S. Department of Labor, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government.

Table 1: Example Health Effects Chart

Small cuts	Loss of a limb, finger
Bruises	Hearing loss
Strains	Eyesight loss
Burns	Developing an allergy to a chemical
Nausea	Cancer
Headache from chemical exposure	Back injury (permanently disabling)
Numbness in hands from vibrating tool	Repetitive motion injury

Table 2: Example Hazard Chart

Safety Hazards	Chemical Hazards	Biological Hazards	Other Health Hazards	"Pressure Cooker" Hazards
 Hot surfaces Walk-in freezers Slippery floors Unsafe ladders Unsafe stairways Machines without guards Sharp knives Moving equipment with sharp parts or pinch points Hot grease Unsafe electric circuits Unintentional power-up of equipment Lack of fire exits Motor vehicles (cars, forklifts, tractors, etc.) Cluttered work areas Falling objects 	 Cleaning products Pesticides Fertilizers Solvents Paints Acids Lead Wood dust Silica dust Poor air quality Carbon monoxide Gasoline Toxic gases 	 Viruses Bacteria Molds Animals Birds Insects Poison ivy Poison oak Used needles Human blood Contaminated laundry 	 Noise Vibration Radiation Heat or cold Repetitive movements Awkward posture Standing for long periods Sitting for long periods Heavy lifting Too little/too much light 	 Fast work pace Harassment Stressful conditions Lack of training Lack of supervision Hostile work environment Violence

Table 3: Example Workplaces Chart

Farm (barn, machine shop, feedlot, cropland)	Grocery store
Restaurant	Retail store
Fast food restaurant	Home (babysitting, landscaping)
Nursing home	Landscaping
Movie theater	Pool (lifeguarding)
Office	Camp counselor
Construction site	Delivery person (e.g takeout food)
Convenience store	Lab worker

HAZARDS IN THE WORKPLACE: ADVANCED WORKSHOP SESSION ADDITIONAL ACTIVITIES (IF TIME PERMITS):

Understanding Emergency Preparation

- Explain: Some hazards are easy to spot because they are potentially encountered very day or are a routine part of the work process; excessive noise or hot grease could be an example. However, unexpected hazards are sometimes encountered, such as fires, workplace violence, or chemical spills/releases. These singular, hazardous events are considered workplace emergencies because they are unexpected and may threaten employees, customers, or the public in some way.
- Brainstorm as a class onto a flip chart sheet types of emergencies that might occur at a job:
 - Examples might include:
 - Severe illness or injury
 - Hurricanes/tornadoes/floods/earthquakes
 - Power outages
 - Fires
 - Chemical release
 - Violence
 - Explosion
 - Mob in a retail store
 - Drowning (at a public pool)
 - Robbery at a store
- o Ask the class to think about if they were at work and one of these events happened, would they know what to do? How do you prepare for an unexpected event?
 - <u>Explain</u>: An employer should explain what kinds of emergencies might happen in that workplace, and what the plans and procedures are that you should follow to ensure your safety.
- o <u>Brainstorm</u> as a class onto a flip chart sheet what they might want to know ahead of time to prepare for an unexpected emergency:
 - Examples might include:
 - Where shelters and meeting places are located
 - Evacuation routes
 - Emergency equipment locations and how to use it (fire extinguishers, AED's, etc.)
 - Alert system (alarm? What does it look/sound like? Where should I go and what should I do?)
 - Who is in charge during emergencies and how to reach them
 - Procedures to follow if someone is injured or becomes ill
 - What are MY individual responsibilities
 - How will I know the emergency is over?

- o Activity (alternatively, this could be given as homework for an individual or group)
 - Divide the students into groups (Alternatively, the story/stories can be read aloud by the instructor, and then the class can answer the questions together). They will work in their small groups to evaluate news stories about workplace emergencies, and determine what went well during the response, and what didn't. Alternatively, they could use examples from their own workplaces/experiences, or from news stories they have seen/heard.
 - Story A: Grease Fire in Restaurant Burns Employee

A fire destroyed part of Hooper's Restaurant late Thursday night, and critically injured two employees. The fire was caused when a frying pan, filled with oil heating up on the stove, was left unattended while fry cook went to get something out of the walk-in freezer. The fire rapidly spread to dishcloths hanging on a towel rack over the stove. Another employee discovered the fire and attempted to put out the fire by pouring water on the stove. This caused the burning grease to splatter his face, arms, and chest. Another coworker, hearing cries for help, called 911 and then ran out into the dining room and yelled for everyone to leave the restaurant immediately. Emergency services arrived and went to work extinguishing the blaze and treating the burned employee.

- Ask: What went right in this emergency situation?
 - o Calling 911
 - o Evacuating the restaurant immediately
- Ask: What went wrong in this emergency situation?
 - o Leaving the stove unattended
 - Why did he leave the stove?
 - o Dish clothes were hanging in a dangerous location
 - Employee tried to put out the fire with the wrong material
 - Was he trained correctly?
 - o No smoke detector or fire alarm or sprinkler system went off
- Ask: What better steps could be taken now to make sure employees are better protected and prepared next time?
 - Install a smoke detector with an alarm and correct sprinkler system (or ensure that the existing one is working correctly)
 - Training employees: hazards of leaving the stove unattended, what type of fire extinguisher to use and how to use it
 - o Put up a new dishcloth rack farther away from the stove
 - Practice evacuation drills and set up a meeting place to ensure that all employees got out of the building safely

• Story B: Robber Threatens Young Employee With Gun

A 16-year old employee of a local convenience store was held up at gunpoint late Tuesday night by a robber wearing a hoodie and dark sunglasses. The employee was working alone at the front counter and was in the process of closing the

store for the evening. The robber reportedly demanded the employee empty the cash register into a duffel bag, then get down on the floor behind the counter and remain on the floor for 15 minutes. The robber then exited the store. Although the young employee was not physically injured, she was very shaken up by the incident.

- Ask: What went right in this emergency situation?
 - The employee cooperated with the robber, probably helping to prevent physical injury
- Ask: What went wrong in this emergency situation?
 - The store was actually able to be robbed because security measures weren't in place.
- Ask: What better steps could be taken now to make sure employees are better protected and prepared next time?
 - o Employees shouldn't be working alone at night
 - o Better security measures (a security guard or silent alarm)
 - o Good lighting inside and outside the store
 - o Security camera
 - o Train the employees how to respond to a robbery or other threat

• Story C: Young Construction Worker Falls From Ladder

An 18-year old house painter, who was painting the second story of a house, fell off his ladder yesterday, breaking both legs. He also suffered severe cuts when he caught his arm on a metal fence during the fall. Coworkers rushed to assist him and called for an ambulance. While waiting for the ambulance, the co-workers carried the employee to the front lawn and then applied pressure to his open wound to stop the bleeding.

- Ask: What went right in this emergency situation?
 - o Co-workers called 911
 - o The co-workers knew to apply pressure to the bleeding wound
- Ask: What went wrong in this emergency situation?
 - Co-workers moved the injured worker (they should have let the EMT's assess his injuries first)
 - It's hard to know, but the co-workers may not have used gloves to protect themselves from blood when applying pressure to the wound.
- Ask: What better steps could be taken now to make sure employees are better protected and prepared next time?
 - Employees should be trained to call 911 first, and not move injured co-workers unless there is another imminent danger. Moving someone after they have fallen or had another injury could make the situation worse.

- There should be a first aid kit quickly available at each job site, and employees should be trained to use gloves if they need to respond to an injured co-worker
- The ladder should be checked to make sure it wasn't broken or defective, or that it was the wrong size for the job
- The employee should be trained about using the ladder correctly, and using other tools (if needed) to get the job done safely

Review: Remind students that all workplaces should have Emergency Action Plans, and that employers must provide this information to workers. Plans should detail who is in charge during an emergency, where shelters are, how to evacuate the facility, and what to do if someone is injured.



Identification of Job Hazards

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What is a Job Hazard?



CAUTION

A job hazard is anything at work that can hurt you, either physically or mentally.

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The Effects of Job Hazards



Temporary Effects













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The Effects of Job Hazards



Immediate Effects





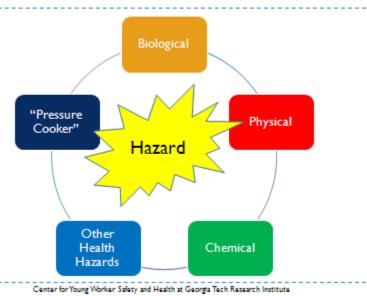






Hazard Categories





Hazard Categories

- <u>Safety hazards:</u> can cause immediate accidents and injuries. (Examples: knives, hot grease, etc.)
- <u>Chemical hazards:</u> are gases, vapors, liquids, or dusts that can harm your body. (Examples: cleaning products or pesticides.) Discuss how chemicals can get into the body.
- Biological hazards: are living things that can cause sickness or disease. (Examples: bacteria, viruses, or insects.)







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Hazard Categories

Other health hazards: are harmful things, not in other categories, that can injure you or make you sick. They are sometimes less obvious because they may not cause health problems right away. (Examples: noise, radiation, repetitive movements, heat, cold)



- "Pressure Cooker or Unspoken" hazards:
 - unsafe equipment or procedures
 - emergency situations: fires, explosions, severe injury, violence
 - stressful conditions
 - inadequate training
 - inadequate supervision
 - deadlines, production requirements, etc.



deadines, production requirements, etc.

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Getting a Safe Start to Identifying Hazards



- Ask your supervisor for help
- Get Training on the chemicals or equipment you will use
- 3. Check the label of the products you will use
- Read the Material Safety Data Sheet (MSDS) for the chemicals or products being used
- 5. Look online for safety and health information-
 - See the resource list provided in the handout packet
- 6. Call a resource agency like OSHA for more help

Material Safety Data Sheets



Questions to ask yourself:

- I. How is this chemical used?
- What are the possible routes of entry?
- 3. What are the potential immediate effects of exposure to this chemical?
- 4. What are the potential delayed effects of exposure to this chemical?
- 5. What are the potential temporary or permanent effects of exposure to this chemical?
- 6. What concerns do you have, if any about this product?



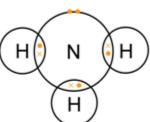
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Material Safety Data Sheets

Ammonia

- What is the percentage of ammonia in this product? What is the other ingredient in this product?
- Is ammonia a corrosive? What is a corrosive?
- What happens if you get ammonia in your eye?
- 4. What should you do if you accidentally swallow ammonia?
- 5. What would happen to your body if you accidentally ingested ammonia?
- 6. What kind of protection should you wear on your body to protect yourself?



HAZARD MAPPING SAFETY (RED) HOT GREAS HOT GREAS

About Noise and Hearing Loss Prevention

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- How Loud is too loud?
 - Exposure to noise at 85dbA for 8 hours a day will cause permanent hearing loss
 - The amount of time of exposure to sounds determines the potential for hearing loss.

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Exposure To Noise



Demonstration of Noise Induced Hearing Loss

NIOSH Sound Level Meter





http://www.hse.gov.uk/noise/demonstration.htm

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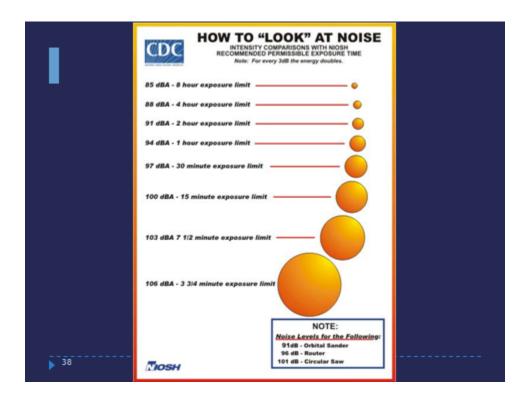
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Summary

- Hazards can cause:
 - Temporary or permanent injury or illness.
 - Effects that may show up right away or not until later in life.
- Recognizing Hazards:
 - May change daily,
 - May be things that you cannot touch, see, smell, or hear,
 - And may be situations that occur.
- It is important for workers to always be aware of how to assess a workplace for potential hazards.

Hazards in the Workplace: Advanced Workshop Session

1. Understanding Emergency Preparedness

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Promoting Understanding: Emergency Preparedness



Story A: Grease Fire in Restaurant Burns Employee

A fire destroyed part of Hooper's Restaurant late Thursday night, and critically injured two employees. The fire was caused when a frying pan, filled with oil heating up on the stove, was left unattended while the fry cook went to get something out of the walkin freezer. The fire rapidly spread to dishcloths hanging on a towel rack over the stove. Another employee discovered the fire and attempted to put out the fire by pouring water on the stove. This caused the burning grease to splatter his face, arms, and chest. Another co-worker, hearing cries for help, called 911 and then ran out into the dining room and yelled for everyone to leave the restaurant immediately. Emergency services arrived and went to work extinguishing the blaze and treating the burned employee.



lmage source: http://tell.fil.purdue.edu/japanProj/FLC(ipart/Medical/burn.gif

Promoting Understanding: Emergency Preparedness



Story B: Robber Threatens Young

Employee With Gun: A 16 year-old employee of a local convenience store was held up at gunpoint late Tuesday night by a robber wearing a hoodie and dark sunglasses. The employee was working alone at the front counter and was in the process of closing the store for the evening. The robber reportedly demanded the employee empty the cash register into a duffel bag, then get down on the floor behind the counter and remain on the floor for 15 minutes. The robber then exited the store. Although the young employee was not physically injured, she was very shaken up by the incident.



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Promoting Understanding: Emergency Preparedness



Story C: Young Construction Worker Falls From Ladder:

An 18 year-old house painter, who was painting the second story of a house, fell off his ladder yesterday, breaking both legs. He also suffered severe cuts when he caught his arm on a metal fence during the fall. Coworkers rushed to assist him and called for an ambulance. While waiting for the ambulance, the co-workers carried the employee to the front lawn and then applied pressure to his open wound to stop the bleeding.



4

LESSON 3: FINDING SOLUTIONS: CONTROLLING AND PREVENTING HAZARDS ON THE JOB

Information Provided under OSHA Susan Harwood Capacity Building Grant: #SH-20848SHO

Objectives:

The students will be provided with a basic overview of the importance of young worker safety and health training. In particular, training will be provided on general young worker safety and health, employee rights under OSHA regulations, and young worker rights as defined by Department of Labor child labor laws.

Enduring Understanding(s):

The student will be able to discuss possible solutions to control job hazards.

 The student will be able to distinguish between prevention strategies that remove the hazard, improve the conditions when working around the hazard, and personal protective equipment worn by the employee.

Essential Question(s):

- What are the three main ways to reduce or eliminate hazards at work?
- What are appropriate ways to approach solving problems at work?
- What are the barriers to making safe choices?
- What is the purpose of wearing personal protective equipment?
- How would you conduct a personal protective equipment hazard assessment?

Total Duration: 1.5-3 hour

Materials and Equipment:

- -Dry erase board or flip chart and markers. (Alternatively, a chalkboard and chalk may be used.)
- -Use PowerPoint slides with a laptop and LCD projector. (Alternatively, PowerPoint slides may be printed onto Overhead transparencies and used with an overhead projector)
- -Where possible, provide a computer with Internet access
- -A container with an assortment of personal protective equipment. This may include an assortment of gloves, hearing protection, protective clothing, protective shoes, head protection, eye protection, and respiratory protection.
- -Copies of Handouts D and E

Notes for instructor:

This lesson is meant to educate students, teachers, employers, and parents about the importance of young worker safety and training. This lesson is meant to last approximately one to two hours depending on the level of interaction and discussion with class participants. Before teaching this lesson:

- 1. Determine the technology capabilities at the location of training. Where possible, use a laptop, LCD projector, and screen.
- 2. Obtain markers and either a flipchart, cling sheets, or a dry erase board to be used for activities.
- 3. Make copies of Handout D and E
- 4. Determine Internet access capabilities for the training location.
- 5. Define the audience: employers, educators, young workers, parents to emphasize each group's focus to reduce young worker injuries and illnesses during the training.

Description
Remind students that now that they know how to
identify hazards, they can now take steps to prevent a
injury or illness from occurring. These steps are called "preventative actions." Explain how some
preventative actions are the responsibility of the
employer, while others can be undertaken by employees.
Explain to the class that there are often several ways t
control a hazard, but that some methods are better than others. [Slide: 46] Go over with the class the thre main control methods:
Remove the hazards,
 Improve work policies and procedures,
 Use protective clothing and equipment.
Poll the class as to which method seems the best, nex
best, and least best. Explain to the class how removing
the hazard prevents all the responsibility for safety
from falling on an individual worker. Then discuss how
in the absence of the ability to remove the hazard, workplace policies and procedures can help to reduce

			employee exposure to hazards. Finally, personal protective equipment is the least effective way to control hazards. [Slides: 47-49] As you go through these slides, ask students to provide examples for each of the control methods. Ask for examples of solutions they may have seen at their own workplaces. Refer to Table 1: Example Control Key for suggestions.
B. Finding Solutions (Example)	5-7 minutes	Flipchart Markers Post-Its™ Hazard Chart from Task B of "Identifying Hazards" lesson [Optional: Slide 50]	Draw a pyramid on a flipchart (or overhead) sheet, and add the 3 control tiers (remove/barrier, policies, protective equipment). Using the example Hazard Chart created during Task B of the "Identifying Hazards" lesson, select an example hazard and write it above the pyramid. [Alternatively, use Slide 35]. Discuss as a class possible solutions; as students call out solutions, write them on Post-It™ notes and arrange those on the side of the flipchart (or overhead). Once brainstorming is complete, take each Post-It™ individually and ask the class under which control strategy the solution belongs. Stick the Post-It™ onto the pyramid chart in the appropriate control tier.
C. Finding Solutions (Activity)	30 minutes	Flipchart Markers Post-Its™	Ask students to retrieve the Hazard Maps they created in Task C of the "Identifying Hazards" lesson, and get into their groups. Have each group brainstorm solutions for their identified hazards, and write each solution onto individual Post-It notes. Provide each group with a flipchart sheet. Instruct each group to draw a pyramid and control tiers onto their sheet, and the name of their workplace at the top. Instruct each group to place their Post-Its™ onto the appropriate control category. Have each team present their control strategy pyramid to the class. [If time is an issue, have each group select as many hazards as appropriate]

D.	Barriers to Safe	As time	Slide: 51	Review the reason for Removal of the Hazard/Building
	Choices and	allows		Barriers being the best control choice. If the hazard
	Solutions			isn't there in the first place, then people don't have to
	(facilitated,			be relied upon to make safe choices EVERY time.
	subjective			
	discussion)			Ask the class what might prevent a worker
				from performing a jobtask safely EVERY time.
				Reasons might include: personal protective Alathing are a might be better the protection of th
				clothing or equipment might be hot, uncomfortable, makes it hard to communicate
				or perform the work; in a hurry – doing it safely
				may take extra time; doing it safely might be
				inconvenient; others are observed performing
				the work unsafely don't get in trouble; habit;
				not knowing how to fix the hazard; concern
				about what the boss or other workers might
				think if you make a big deal about doing the job
				safely; attitudes of other workers/supervisors.
				Sometimes, a bad attitude towards safety – whether it
				is an employee or the employer or supervisor – can be
				just as hazardous or dangerous as other more obvious
				hazards such as sharp knives and hot grease.
				Remember, when you enter the work world, you
				become responsible for yourself and your co-workers.
				Preventing injuries or illnesses on the job requires that
				the hazard be recognized AND that something is done
				to eliminate or reduce the hazard – and that is
				EVERYONE's responsibility.
E.	Introduction to	5 minutes	Slides 52-54	Begin by polling the students to ask them who has
	Personal Protective			worn various types of personal protective equipment.
	Equipment			Ask the students:
				-Why use PPE?
				-Why should PPE be used as a last resort?
				-What are some common types of PPE?
				-Have you ever used PPE at home or for recreational activities?
•				

			Explain to the students that PPE can be an effective tool to protect workers only if it is selected properly, the user is effectively trained, and the user wears the PPE properly. Discuss the uses of PPE to protect not only the worker, but to also prevent take home contamination. Discuss the common uses of PPE in sports and recreation such as: helmets, gloves, knee pads, and SCUBA respirators. Discuss how PPE has limitations that include: -Comfort being limited, especially in extreme temperatures. -Frequent breaks or changes in tasks may require the employee to repeatedly put on and take off their PPE. -PPE may not fit individuals properly, especially if the employer purchases only one type for an entire workplace. -PPE breaks down over time and may not fully protect the employee
F. Routes of Exposure	5 minutes	Slide 55	Explain to the students that when selecting PPE, the employer must determine how employees may be exposed to the individual chemicals or hazards. Explain that the human body has three main protective barriers against exposure to hazards. These include: - The skin, which protects the body from contaminants outside the body; - The gastrointestinal (GI) tract, which protects the inner body from contaminants that have been ingested, - The membranes within the lungs and respiratory tract, which protect the inner body from contaminants that have been inhaled. Because sharp objects may be present in a workplace, it is possible for a fourth route of

	1	I	
			exposure: injection. Injection can occur when there is an accidental needlestick.
G. PPE Grab Bag	minutes Har	-	Provide Students with copies of Handout E. This handout includes and OSHA Factsheet about PPE. Using this Fact Sheet and the container full of PPE, go over with students the various types of personal protective equipment. These may include: Protection from Head Injuries: Hard hats can protect your workers from head impact, penetration injuries, and electrical injuries such as those caused by falling or flying objects, fixed objects, or contact with electrical conductors. Protection from Foot and Leg Injuries: In addition to foot guards and safety shoes, leggings (e.g., leather, aluminized rayon, or other appropriate material) can help prevent injuries by protecting workers from hazards such as falling or rolling objects, sharp objects, wet and slippery surfaces, molten metals, hot surfaces, and electrical hazards.
			Protection from Eye and Face Injuries: Besides spectacles and goggles, personal protective equipment such as special helmets or shields, spectacles with side shields, and faceshields can protect workers from the hazards of flying fragments, large chips, hot sparks, optical radiation, splashes from molten metals, as well as objects, particles, sand, dirt, mists, dusts, and glare. Protection from Hearing Loss: Wearing earplugs or earmuffs can help prevent damage to hearing. Exposure to high noise levels can cause irreversible hearing loss or impairment as well as physical and psychological stress. Protection from Hand Injuries: Workers exposed to harmful substances through skin absorption, severe cuts or lacerations, severe abrasions, chemical burns, thermal burns, and harmful temperature extremes will benefit from hand protection.

			Protection from Body Injury: In some cases workers must shield most or all of their bodies against hazards in the workplace, such as exposure to heat and radiation as well as hot metals, scalding liquids, body fluids, hazardous materials or waste, and other hazards. When to Wear Respiratory Protection: When engineering controls are not feasible, workers must use appropriate respirators to protect against adverse health effects caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors.
H. PPE Hazard Assessment	10-20 Minutes	Slides 57-58 Handout E Hazard Maps	Ask the students to refer back to the hazard maps that were created during Lesson 2 of this course. Alternatively, if hazard mapping was not conducted, one of the injury reports, found on slides 13-21 may be used for this exercise. Ask students to choose one job task that might be conducted either at the job site that they drew during the hazard mapping activity or using one of the job tasks from the injury reports. Have the students discuss what the different zones of the body may be subjected to hazards. Using handout E, have the students mark the body, determining where the employee may possibly experience injury or illness. After the students have completed this first task, have the students use the PPE Hazard Assessment form that is found in Handout E to write down what the potential hazards would be for each of those zones of the body. Then, using the OSHA PPE Factsheet as a guide, have the students determine what type of PPE would be appropriate to protect each PPE zone for the body.
I. PPE Shopping	5-10 minutes	Slide 59 Container of PPE	Place the samples of PPE on a table. Explain to the students that they are to use their PPE hazard assessments that they completed during exercise H of this lesson to use a shopping guide to "purchase" the appropriate PPE for an employee to perform the selected job task.

Young Worker Safety and Health Training for Employees

			Ask the students to present their selections and explain why they choose each individual type of PPE.
E. Conclusions and Summary	5 minutes	Slide 60	Go over the objectives of this lecture, as outlined in the beginning of this lesson plan.
			Answer student questions.

References

NIOSH and CDC. (2010), Youth@Work Talking Safety: Teaching Young Workers about Job Safety and Health. Department of Health and Human Services, Public Health Service, Centers for Disease Control, National Institute for Occupational Safety and Health. NIOSH Publication No.2007-136.

OSHA. (2010), <u>Introduction to OSHA Presentation</u>. United States Department of Labor, Occupational Safety and Health Administration.

<u>Work Safe</u>, <u>Work Smart</u>: Health and Safety Awareness for Working Teens curriculum. University of Washington: Dept. of Environmental and Occupational Health Sciences. Washington State Dept. of Labor and Industries.

Young Worker Safety Resource Center, <u>OSHA'11: An OSHA 10-hour curriculum for Young Workers</u>. University of Washington- Pacific Northwest OSHA Education Center, U.C. Berkeley Labor Occupational Health Program, Education Development Center, Inc.

OSHA, (2006) <u>OSHA Factsheet: Personal Protective Equipment</u>. United States Department of Labor, Occupational Safety and Health Administration.

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Table 1: Example Control Key

Remove the Hazard/Build a Barrier	Use less toxic cleaners
nemove the Hazaru/Dullu a Dalliel	Install ventilation to remove hazardous air
	contaminants
	Putting shields or guards in front of
	dangerous equipment or moving parts
	Using machines that require both hands to
	start so the employees hands are out of the
	way of the moving part when the machine is
	operational
	Seatbelts in moving vehicles
	Storing chemicals in safety cabinet
	Installing non-slip flooring
Improve Work Policies & Procedures	Establish a rule requiring workers to wear
	personal protective equipment or clothing
	during certain hazardous jobs
	Require people to rotate jobs, so a worker is
	only exposed to a hazard for a short period
	of time
	Enforcing rules (including disciplining
	workers for not following safety rules)
	 Creating workplace policies on how a job will be performed
	Allow no food in a work area
	Train workers how to apply chemicals safely
	Teach workers about the hazards of their job
	Train workers how to dispose of hazardous
	trash appropriately
	Post safety reminders or hold safety
	meetings
	Require inspection of equipment prior to
	using it
Use Protective Clothing or Equipment	Use protective equipment such as: hard hats,
	steel-toed boots, rubber boots, hearing
	protection, gloves, eye protection,
	respiratory protection, goggles, face shields,
	lab coats



Finding Solutions

Controlling & Preventing Hazards on the Job

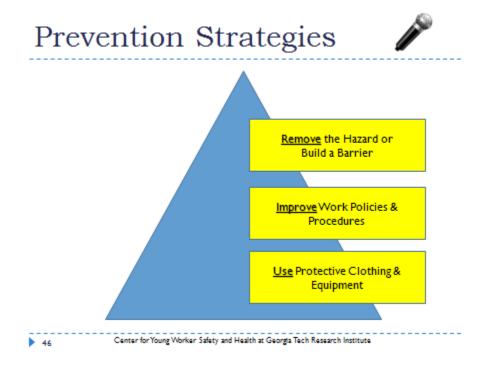
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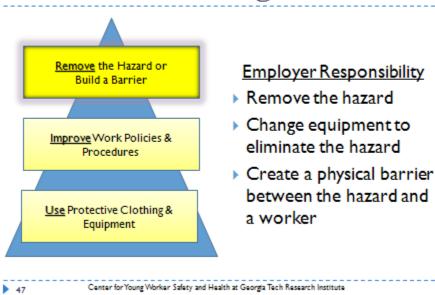
Preventing Injuries & Illnesses

In most cases, the best preventions require a change in the workplace – not a change in worker behavior.

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Prevention Strategies



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Prevention Strategies



Employer Responsibility

- Establish rules and procedures
- Enforce rules and procedures
- Train workers
- Provide information on hazards and safety rules

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Prevention Strategies



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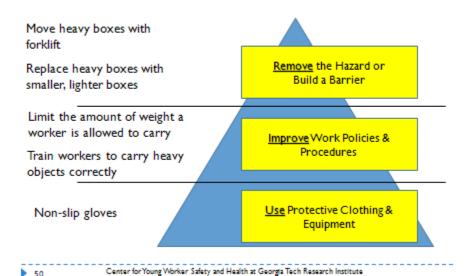
Employer Responsibility

- Provide protective clothing and equipment
- Train on its use
 Employee Responsibility
- Wear and use the clothing and equipment correctly and consistently

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Hazard: Heavy Boxes





Barriers to Solutions







Personal Protective Equipment

Your Last Line of Defense

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An Overview Of Personal Protective Equipment

- ▶ The Purpose of PPE
- ▶ Types of PPE
- ▶ PPE Zones
- ▶ PPE Hazard Assessments
- ▶ PPE Shopping

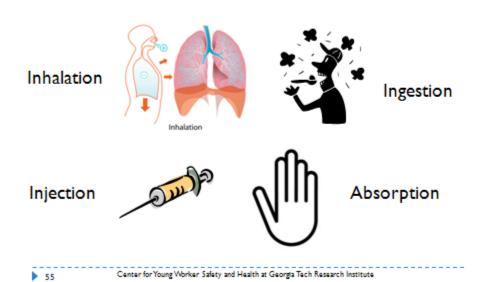


Why wear PPE?

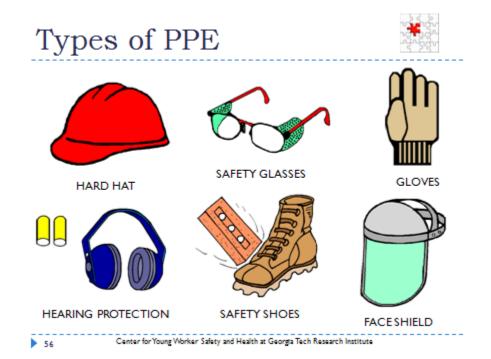
- ▶ Barrier against workplace hazards
 - Prevent over exposure
- To prevent take home contamination
 - Prevent exposure to others outside of the work environment

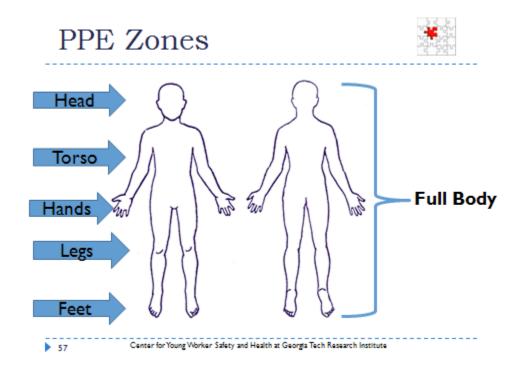
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Routes of Exposure



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PPE Hazard Assessment by Zone



PPE	Potential Hazards	Personal Protective
Zone		Equipment Required
Zone		Equipment Required
Head		
Torso		
Hands		
Legs		
Feet		
Body		

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Let's go Shopping for PPE 🧨





Using Your Completed PPE Hazard Assessments select the appropriate PPE from the Table

Summary

- ▶ The three main ways to control workplace hazards are:
 - Remove the hazards/build barrier
 - Improve workplace policies or procedures
 - Use protective clothing or equipment
- Although employers are responsible for providing a hazard-free work environment, we all have a responsibility to speak up and take action when we see a hazard or unsafe act.

LESSON 4: FINDING A VOICE: YOUNG WORKER RIGHTS AND RESPONSIBILITIES

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Objectives:

The students will be provided with a basic overview of the importance of young worker safety and health training. In particular, training will be provided on general young worker safety and health, employee rights under OSHA regulations, and young worker rights as defined by Department of Labor child labor laws.

Enduring Understanding(s):

- The student will develop an understanding of what rights employees' have under OSHA.
- The student will determine what jobs young workers "Can Do" as defined by US Department of Labor child labor laws.
- The student will develop communication tools and strategies for addressing safety and health hazards they identify in the workplace with their supervisor and coworkers.

Essential Question(s):

- What legal rights do all workers have to make sure their jobs are safe?
- What extra protections do young workers have under child labor laws?
- What are the governmental agencies that enforce labor and job safety laws?
- What are appropriate ways to approach solving problems at work?
- What should a young worker do if they see something at work that could hurt them or make them sick?

Total Duration: 2 hours

Materials and Equipment:

- -Dry erase board or flip chart and markers. (Alternatively, a chalkboard and chalk may be used.)
- -Use PowerPoint slides with a laptop and LCD projector. (Alternatively, PowerPoint slides may be printed onto Overhead transparencies and used with an overhead projector)
- -Props for role-playing scenarios
- -Where possible, provide a computer with Internet access
- -Handouts F, G, and H

Notes for instructor:

This lesson is meant to educate students, teachers, employers, and parents about the importance of young worker safety and training. This lesson is meant to last approximately two hours depending on the level of interaction and discussion with class participants. Before teaching this lesson:

- 1. Determine the technology capabilities at the location of training. Where possible, use a laptop, LCD projector, and screen.
- 2. Obtain markers and either a flipchart, cling sheets, or a dry erase board to be used for activities.
- 3. Determine Internet access capabilities for the training location.
- 4. Define the audience: employers, educators, young workers, parents to emphasize each group's focus to reduce young worker injuries and illnesses during the training.

Lesso	Lesson 4: Finding Your Voice: Young Worker Rights and Responsibilities				
Activity	Time	Materials	Description		
A. Understanding Your Rights: OSHA Rights	10 minutes	Slides 61-63 Handout F Internet Access	 Discuss the importance of OSHA in the protection of all workers' rights. Go over slides 55-57, discussing with the students that Section 5(a)(1) of the OSH Act states: "Each employer shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees." Discuss what it means to have a workplace that is safe and healthful. Provide Students with copies of Handout F Go over the additional rights that all employees have, including: A safe and healthful workplace Knowledge about hazardous chemicals Information about injuries and illnesses in your workplace Complain or request hazard correction from employer Training (in a language you understand) 		

			-Access to hazard exposure and medical records
			-Access to Hazard exposure and medical records
			-File a complaint with OSHA
			-Participate in an OSHA inspection
			-Be free from retaliation for exercising safety and health rights (describe Whistleblower Protection Program)
			If Internet access is available, show students the OSHA Web site. http://www.osha.gov/workers.html
B. Understanding Your Rights: Child	10 minutes	Slide 64	Discuss the history of child labor. Can include discussion about:
Labor Laws			 Child labor expanded with industrial revolution b/c operating machinery did not require adult strength Children could do some tasks that adults could not (esp. those requiring small bodies or small hands) Children were cheaper, easily replaceable, and less likely to strike Children had no time to play or go to school Working conditions were bad (hot in the summer, cold in the winter, chemical exposures, unguarded machinery, etc.) causing many children to get sick, maimed, or killed Ask students to work in groups to come up with a few laws that could effectively protect children. Have each group share their ideas. (Knowledge of the history of child labor laws is not required but recommended for this exercise; however you may wish to compare the
C. Understanding	10	Slides 65-67	groups' ideas to current labor laws.) Discuss with the class that OSHA is found within the
Your Rights: Labor Laws	minutes	Handout F	US Department of Labor. Explain that also found within the Department of Labor is the Wage and Hour Division. This Division is responsible for designating child labor laws. Explain that some states may have more stringent child labor laws. If internet access is available, show the students the websites that can be used to determine specifics related to child labor laws

			at both a federal and state level.
			Explain that the child labor laws were updated on July 19, 2010, and caution students to verify any fact sheets or references that are being used for child labor law information be updated to reflect the current laws. Distribute handout and discuss the labor laws for minors. Refer to Handout F for additional information on child labor laws.
D. Understanding Your Rights: Communication Strategies	10 minutes	Slide 68 Handout F	Explain that while there are rules and regulations employers must follow to provide a safe and healthy workplace for all employees, sometimes rules are broken or not followed – either accidentally or on purpose – by both employers and employees. Although a complaint may be filed by an employee with OSHA if hazards exist, employees are encouraged to address safety concerns with their supervisors or co-workers first. Ask the class if anyone has ever had any kind of problem at work, or a problem that someone you know has had, that the student would be willing to share with the class. (Alternatively, refer back to one of the Injury Report Scenarios from Lesson 1 (Slides 13-21) Ask the student what steps they took to solve the problem. Then ask the whole class to comment on any other steps that could be taken to solve the problem. Discuss with the class possible steps for solving workplace problems: • Define the problem or problems. Being able to describe the problem clearly is the first step toward solving it. • Get advice from a parent, teacher, or coworker. See if they have ideas about how to handle the problem, and see if they'll help. If there is a union at your workplace, you may also want to ask the union to help you.

			 Choose your goals. Think about what you want to happen to fix the problem. You may want to write down your possible solutions. Know your rights. Be familiar with what hours you may work, and what tasks you are not allowed to do as a teen. Be familiar with your safety rights too. Decide the best way to talk to the supervisor. Figure out what to say and whether to take someone with you when you talk to the supervisor. If necessary, contact an outside agency for help. If you continue to have trouble after you talk to your supervisor, get help from someone you trust. If all else fails, you may need to call the appropriate government agency. These strategies are summarized on Handout F.
E. Understanding Your Rights: Finding Your Voice	60 minutes	Slide 69 Handout G	Provide students with either a complete version of Handout G or provide them with an individual scenario.
			Depending on time available, either assign teams/groups of students a role-play scenario to develop, or allow them to choose their topic. Hand out the appropriate scenario documents to each group. Allow them 15-20 minutes to develop their scripts and rehearse. Remaining time will be spent presenting their scenario to the group.
Understanding Your Rights: Finding Your Voice	10 minutes	Slide 70-71	Facilitate discussion around the questions on the slides. Achieving agreement or consensus is not the goal – exploring the concept of "acceptable risk" is the purpose of this slide. Refer to Table 1: Attitudes for additional information.
Understanding Your Rights: Finding Your Voice	5 minutes	Slide 72-73	Read the example on the slide to the class. This "safety measure solution" to preventing an injury during close up at a retail store comes with costs and benefits. Ask class to brainstorm out loud possible costs and benefits to this safety measure solution. Show Slide 67 to assist dialogue, and see if students can add additional ideas. If time, continue with other

Young Worker Safety and Health Training for Employees

			"safety measure solutions," such as: installing a guard on a piece of moving equipment or wearing gloves when handling chemicals.
Understanding Your Rights: Finding Your Voice	5 minutes	Slide 74	Use this slide as a summary for the day. Remind students that they have reviewed how to identify hazards, ways to control hazards, and how to communicate about hazards to others.
F. Conclusions and Summary	5 minutes	Slides 75-79	Share various resources outlined on slides 75-78. Share contact information for Youth Center on slide 79. Go over the objectives of this lecture, as outlined in the beginning of this lesson plan. Answer student questions.

References

NIOSH and CDC. (2010), Youth@Work Talking Safety: Teaching Young Workers about Job Safety and Health. Department of Health and Human Services, Public Health Service, Centers for Disease Control, National Institute for Occupational Safety and Health. NIOSH Publication No.2007-136.

OSHA. (2010), <u>Introduction to OSHA Presentation</u>. United States Department of Labor, Occupational Safety and Health Administration.

Young Worker Safety Resource Center, <u>OSHA'11: An OSHA 10-hour curriculum for Young Workers</u>. University of Washington- Pacific Northwest OSHA Education Center, U.C. Berkeley Labor Occupational Health Program, Education Development Center, Inc.

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Table 1: Attitudes (Possible Answers)

Even if an employer does everything they can to prevent work injuries and illnesses, people still become injured while working. Why do you think that is?	 A worker might not recognize that something is a hazard Even if the hazard is recognized, they might continue working without prevention strategies (like safety glasses)
Why might a person work around hazards	Prevention is uncomfortable Prevention is uncomfortable
without setting up prevention measures?	 Busyness/rushing; stress about getting the job done on time Concern about what the boss or other coworkers might think Underestimating the danger Not knowing how to fix the hazard Habit
People sometimes take risks with things they	Drive fast
know are hazards. Can you name some things	Smoke
you or other people do, even though they may be risky?	Drink and driveRide motorcycle or bike without helmet
Can you name some things you or other people would not do, because they are too risky?	 Racing train across railroad tracks Use drugs Jump off a 1-story building
How do you decide how much of a risk you are willing to take? How do you know where to draw the line?	Input from others?Concern for yourself? Others?Advice?Rules?



Finding Your Voice

Understanding Your Rights and Responsibilities

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Your Right to a...

Safe & Healthful Workplace

The creation of OSHA provided workers the right to a safe and healthful workplace.



Section 5(a)(1) of the OSH Act states: "Each employer shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees."

www.osha.gov or call: 1-800-321-OSHA

What Rights Do *All* Employees Have Under OSHA?

- You have the right to:
 - A safe and healthful workplace
 - Know about hazardous chemicals
 - Information about injuries and illnesses in your workplace
 - Complain or request hazard correction from employer
 - Training
 - Hazard exposure and medical records
 - File a complaint with OSHA
 - Participate in an OSHA inspection
 - Be free from retaliation for exercising safety and health rights

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Why are there Child Labor Laws?



1800's:

- Children worked in mines, factories, etc.
- 12-14 hour days, 6 days/week
- \$1/week wage
- Did not go to school
- Often lost limbs or killed by machinery





What laws could have prevented this?

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Youth Rules!

- Child Labor Laws are designed to protect teens under 18 from:
 - Working long or late hours
 - From doing certain dangerous tasks on the job
- Federal regulations updated on July 19,2010
- Where to go for more information:
 - Youth Rules! Website : http://youthrules.dol.gov/
 - Wage and Hour Division of Department of Labor : http://www.dol.gov/whd/

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Know Your Rights

- Federal and state labor laws:
 - Set minimum age for some tasks
 - Protect teens from working too long, too late or too early
- OSHA says every employer must provide:
 - A safe workplace
 - Safety training on certain hazards
 - Safety equipment
- By law, your employer is not allowed to fire or punish you for reporting a safety problem.

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Rules based on age

AGE	JOB TYPES	WORKING HOURS
18+	Any job, hazardous or not	No limits
16 and 17	Any non-hazardous job	No limits on times or hours
14 and 15	Outside school hours in non- manufacturing, non-mining, and non-hazardous jobs	7AM – 7PM Labor Day to June I (can't miss school for work) Max. hours during school: 3 hours/day, 18 hours/week 7AM – 9PM June I to Labor Day Max. working hours non-school: 8 hours/day, 40 hours/week
Under 14	Can work in business owned by parents, perform babysitting or minor chores around private home, deliver newspapers, perform in radio, television, etc.	Minimum working age is 14

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Handling Workplace Safety Problems



Steps in Problem Solving:

- Define the problem
- Get advice
- ▶ Choose your goals
- Know your rights
- Decide the best way to talk to the supervisor
- If necessary, contact an outside agency for help.



Role-Play Scenarios



- Housekeeping
- Masonry Apprentice
- Concert
- Lifeguard
- Childcare
- Restaurant
- Convenience Store
- Laboratory
- Babysitting

Choose Your Topic!

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Workplace Attitudes



- Even if an employer does everything they can to prevent work injuries and illnesses, people still become injured while working. Why do you think that is?
- Why might a person work around hazards without setting up prevention measures?
- People sometimes take risks with things they know are hazards. Can you name some things you or other people do, even though they may be risky?

Source: Work Safe, Work Smart curriculum. Lesson 3.

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Workplace Attitudes



- Can you name some things you or other people would not do, because they are too risky?
- How do you decide how much of a risk you are willing to take? How do you know where to draw the line?

Source: Work Safe, Work Smart curriculum. Lesson 3.

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Benefits vs. Costs



- Each of us has to weigh the costs and benefits of being safe or taking a risk. We have to decide what balance between these two things is acceptable to us.
- Example:
 - Always require two people to be in store during close-up and cash-out

Source: Work Safe, Work Smart curriculum. Lesson 3.

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Benefits vs. Costs

Benefits

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- Extra eyes and ears to keep lookout for strange activity
- Feel more secure

- Costs
- More \$ cost to the employer
- Two jobs can't be done at once (takes more time to close-up)

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Taking Action



- What can you do if you spot a hazard or feel unsafe?
- Why would you speak up or not?
- Who to contact if there are problems that still exist?
- When should I take action or seek outside help?
- Where to go for more information?

Building Resources

International Resources

- Canadian Centre for Occupational Health and Safety: Young Worker Zone http://www.ccohs.ca/youngworkers/
- Work Safe British Columbia: Young Workers at Risk http://www2.worksafebc.com/Topics/YoungWorker/Home.asp
- International Programme on the Elimination of Child Labour http://www.ilo.org/ipec/areas/Safeworkforyouth/lang--en/index.htm
- Youth@Work (Safe, fair, productive young working lives) presented by the Government of South Australia http://www.safework.sa.gov.au/youth/
- WorkSafe: Saskatchewan (Canada) http://www.worksafesask.ca/Youth

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Building Resources

National Resources

- Occupational Safety and Health Administration (OSHA) www.osha.gov and http://www.youth2work.gov/
- National Institute of Occupational Safety and Health (NIOSH) http://www.cdc.gov/niosh/topics/youth/
- Youngworkers.org http://www.youngworkers.org/home.htm
 *The California Resource Network for Young Workers'
 Health and Safety and home of The National Young Worker
 Safety Resource Center
- United States Department of Labor, Wage and Hour Division (WHD) Youth Rules! http://www.youthrules.dol.gov/teens/default.htm
- National Children's Center for Rural Agricultural Health and Safety http://www.marshfieldclinic.org/nccrahs/
- Gulf Coast Safety Institute <u>www.com.edu/gcsi</u>

Building Resources

Georgia Local Resources

- Georgia Department of Education http://www.gadoe.org/
- Georgia Department of Education: Career, Technology and Agricultural Education http://www.gadoe.org/ci_cta.aspx
- SkillsUSA <u>www.skillsusageorgia.org</u> and <u>www.skillsusa.org</u>
- Georgia Technology Student Association <u>www.gatsa.org</u>
- Georgia Engineering and Technology Education Association www.getea.org
- Georgia Health Occupations Students of America <u>www.georgiahosa.org</u> Construction Education Foundation of Georgia <u>www.cefga.org</u>
- Trade and Industrial Educators of Georgia http://tiega.org/
- MAGIC "Mentoring a Girl in Construction", Inc. Summer Camp Program www.mentoringagirlinconstruction.com
- Project Safe Georgia www.projectsafegeorgia.org
- American Society of Safety Engineers (ASSE)- Georgia Chapter http://georgia.asse.org/
- Georgia Local Section-American Industrial Hygiene Association (GLS-AIHA) http://www.georgiaaiha.org/

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For More Information

- Email: youngworker@gtri.gatech.edu
- Website: www.youngworker.gatech.edu
- Twitter: @youngworker
- Facebook:

http://www.facebook.com/#!/Young.Worker.at.GTRI

- Phone: 404-407-8089
- Address:

Center for Young Worker Safety and Health at GTRI 260 I 4th Street Atlanta, GA 30332