

Lesson At A Glance

Length	1 hour
Learning Objectives	<p>Students will:</p> <ul style="list-style-type: none"> • assess the risks associated with unsafe practices or situations • evaluate hazardous situations and propose strategies to avoid or eliminate the unsafe situations
Teaching Strategies	<ul style="list-style-type: none"> • transparencies • catch phrases • cooperative groups • questioning • group presentations
Equipment/Instructional Aids	<ul style="list-style-type: none"> • overhead projector (prepare overhead transparencies) • flipchart/whiteboard • visual laminate cards • Student Handouts (photocopy for class)
Assessment Strategy	<ul style="list-style-type: none"> • brainstorming activity (scenarios) • presentation • case studies

Lesson Breakdown

15 min.	Introductory Activity - Hazard Evaluation
20 min.	Learning Activity - A, B and C Type Hazards
25 min.	Group Learning Activity - Hazard Recognition Activity

Purpose

This module is designed to help students develop their hazard evaluation skills by assessing the risks associated with the hazard and to review the WorkSafe "See it. Think It. Do It."

Learning Objectives

Students will be able to:

- assess the risks associated with unsafe practices or situations
- evaluate hazardous situations and propose strategies to avoid or eliminate the unsafe situations

Duration

1 hour

Instructional Materials

Visuals & Overheads

(optional: produce visuals into overheads)

1. A, B & C Hazards
2. Six Hazard Recognition Visual Laminate Cards

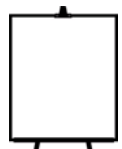
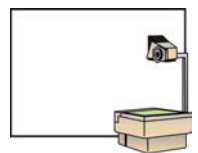
Student Handouts

(photocopy for students)

1. Hazard Evaluation Sample
2. Hazard Evaluation Worksheet
3. Hazard Recognition Activity

Equipment

1. Overhead Projector and screen
2. White board or flipchart and paper
3. Markers



Note to Teacher

This lesson reviews the principles of hazard recognition. This theme is deliberately repeated in each grade level to reinforce the principles of hazard recognition.

The visuals used in this lesson reflect some of the activities, tasks and jobs that grade 8 students are involved in. However, some of the jobs used in the visuals may not be available to grade 8 students in your school.



Background Information

Hazard Recognition is everyone's responsibility. However, recognizing hazards are only part of ensuring a safe work environment. Knowing what to do about a potentially hazardous situation is part also part of your responsibility. Providing thinking frames that include hazard recognition, assessing the risks associated with hazard and decision-making skills to eliminate or control the hazard will help to make safety a transferable skill.

Inexperience and lack of training are the main reasons for the high number of injuries and fatalities among young workers. This lack of experience makes them less likely to recognize workplace hazards and often, young workers are reluctant to ask for the training and instruction they need.

Introduction - 15 min.

Comment

When we think about hazards, the first things that comes to mind are items that we “see” that could obviously hurt us. This often includes things or people that are in our immediate surroundings.

Introduction - continued

Comment

But once you see a hazard, what would you do to ensure that you or another person will not get hurt as a result of the hazard.

Hazard evaluation determines the potential of the risk for injury and is based on assessing the risks associated with the unsafe situation. There are no comprehensive lists of what constitutes an A, B or C Type Hazard. Let's discuss what is meant by evaluating the hazard.

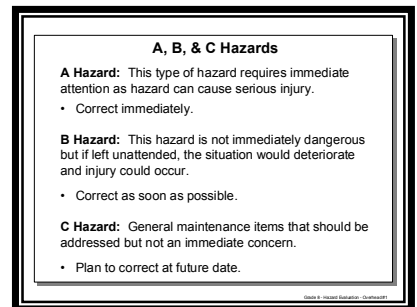
Display Overhead #1 - A, B and C Type Hazards to class.

Comment

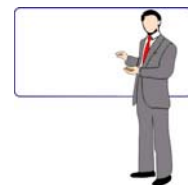
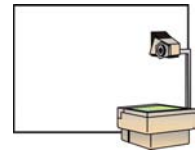
“A” Type Hazard:

This type of hazard requires immediate attention. The hazard can cause serious injury if not corrected immediately.

- this hazard must be reported to the teacher, parent or employer to be eliminated immediately.
- someone may need to be left at the spot to prevent injury while someone else goes for help or a marker might be left to alert people to the danger.



Overhead #1



Introduction - continued

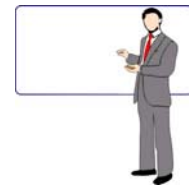
Ask

What are some types of hazards that you think would be classified as “A” type?

Write responses on board or flipchart.

Random Responses

- spills on floor
- jagged/broken glass
- metal protruding
- finding a needle or condom on a playground
- smell of gas

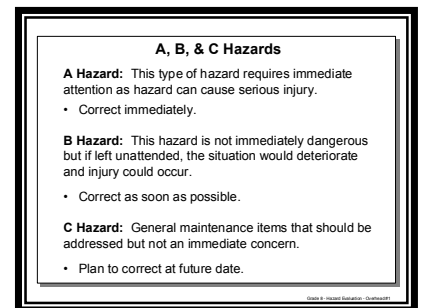


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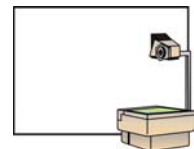
“B” Hazard:

This type of hazard is not immediately dangerous but if left unattended, the situation would deteriorate and injury could occur. Correct as soon as possible.

- this type of hazard should be reported verbally and in writing to the teacher, parent employer or the Safety Committee.



Overhead #1



Introduction - continued

Ask

What are some of examples of “B” type hazards?



Random Response

- a loose bracket
- sticking wheels on a trolley cart
- a loose handle on a carrying case
- a worn handle of a tool

Comment

“C” Hazard:

General maintenance items that should be addressed but pose no immediate concern. Plan to correct at a future date.

- this type of hazard must be reported in written form to the teacher, Safety Committee, or employer, for future repair.

Examples of a C type hazard are a creaking swing requiring oil, peeling paint that is allowing the wood to splinter, a broken fence.

A, B, & C Hazards

A Hazard: This type of hazard requires immediate attention as hazard can cause serious injury.

- Correct immediately.

B Hazard: This hazard is not immediately dangerous but if left unattended, the situation would deteriorate and injury could occur.

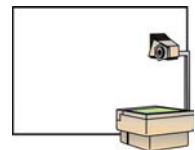
- Correct as soon as possible.

C Hazard: General maintenance items that should be addressed but not an immediate concern.

- Plan to correct at future date.

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Overhead #1



A, B & C Hazards Learning Activity - 20 min.

Distribute Student Handout #1 to class.

Review the Hazard Evaluation sample exercise with the class. Explain that there is personal judgement involved in evaluating hazards. For example, lifting a heavy box may not be as hazardous for some students as for others.

Name:		Hazard Evaluation		Date:
Setting: MacDonald's		A Hazard: Can cause serious injury. Must be corrected immediately.		
Activity/Job: Bus Person		B Hazard: Must be corrected soon to avoid injury.		
Specific Location: Marine & Cambie		C Hazard: Not an immediate concern. Plan to correct in future.		
SAMPLE				
A Hazard:	B Hazard:	C Hazard:		
Spilt coke on floor Small child left unattended in high chair	Hygiene problem - garbage	Squeaking wheels need oil		
Reasons Why:	Reasons Why:	Reasons Why:		
<ul style="list-style-type: none"> Someone could slip and fall. Something could happen to child, e.g. fall out or taken. 	<ul style="list-style-type: none"> Could become a problem if overflows. Clean up as soon as possible. 	<ul style="list-style-type: none"> Intating but not immediately dangerous 		

Distribute Student Handout #2 for an individual learning activity.

Ask students to choose one job or activity at work or at home. List potential A, B and C type hazards for the job or activity on the worksheet and give reasons for the type of hazard (as per sample in Student Handout #1).

Name:		Hazard Evaluation		Date:
Setting:		A Hazard: Can cause serious injury. Must be corrected immediately.		
Activity/Job:		B Hazard: Must be corrected soon to avoid injury.		
Specific Location:		C Hazard: Not an immediate concern. Plan to correct in future.		
A Hazard:	B Hazard:	C Hazard:		
Reasons Why:	Reasons Why:	Reasons Why:		

Note: Personal judgement plays an important role in evaluation, therefore, solid reasons for their choices are more important than right or wrong answers.



Optional:

Have students share their findings with class.

Hazard Recognition Learning Activity - 25 min.

Divide students into groups of 4 to 6.

Distribute Student Handout #3 to groups. Hand out one Hazard Recognition Visual (#1 to #6) to each group.

Hazard Recognition Activity		
Setting: Activity/Job: Specific Location:	Keep in mind: • Physical layout • Equipment • Tool condition • Housekeeping • Time of Day	• Lack of procedures • Unnecessary risks • Use of protective equipment • Handling of hazardous materials or substances • People movement (actions/errors)
1. See it (Recognition) What is unsafe?	2. Think it (Evaluation) Why is it unsafe?	3. Do it (Control) What must be done to make it safe?
<small>Grade 8 - Hazard Evaluation - Student Handout #3</small>		

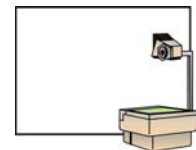
Comment

In this group activity, students will practice the three steps to controlling a hazard: **See it. Think it. Do it**

Brainstorm ideas and answers to the questions on Student Handout #3.

Each group will present their findings to the class.

Optional: Display the hazard recognition overheads while each group presents findings.



Teacher's Answer Key - Hazard Recognition

Visual Set - Woodworker on Saw



See it (how many unsafe acts or conditions can you find?)

- worker wearing loose clothing and jewellery
- worker not wearing safety glasses or gloves
- worker has poor posture
- worker using screwdriver to dig out debris
- work area is cluttered / messy



Visual #1
O/H #2



Think it (ask yourself, "Why is this a hazardous situation?")

- debris could fly into worker's eyes
- worker's hand could get cut
- clothing or jewellery could get caught in equipment
- neck, back and/or shoulders could get strained
- worker could trip and fall



Do it (In this scenario, suggest how an accident can be prevented from happening)

- wear safety glasses and gloves
- unplug saw before trying to remove debris
- remove jewellery while working
- wear tighter fitting clothes
- ensure proper posture
- clean up work area
- follow safe work procedures

Visual Set - Shop Worker At Sink



See it (how many unsafe acts or conditions can you find?)

- electrical cords lying across work area
- safety glasses and gloves not worn
- unknown cleaning chemicals
- improper tool used for cleaning



Visual #2
O/H #3



Think it (ask yourself, "Why is this a hazardous situation?")

- worker could trip on electrical cord
- worker could get cut by tool used to clean with
- cleaning chemicals could cause skin irritation
- cleaning chemicals or materials could splash into worker's eyes



Do it (In this scenario, suggest how an accident can be prevented from happening)

- remove electrical cord
- wear safety glasses and gloves
- ensure sink is cleared
- ensure proper procedures are followed for using chemicals

Teacher's Answer Key - Hazard Recognition

Visual Set - Cashier



See it

(how many unsafe acts or conditions can you find?)

- worker leaning on elbow
- worker has poor posture
- groceries about to fall off counter
- heavy grocery items



Visual #3
O/H #4



Think it

(ask yourself, "Why is this a hazardous situation?")

- worker could get back/shoulder strain
- worker could get injured trying to stop groceries from falling
- overextending can cause neck/arm/back injuries



Do it

(In this scenario, suggest how an accident can be prevented from happening)

- worker should stand up straight (no leaning)
- ensure groceries don't fall over
- don't twist body
- don't overextend while reaching for groceries

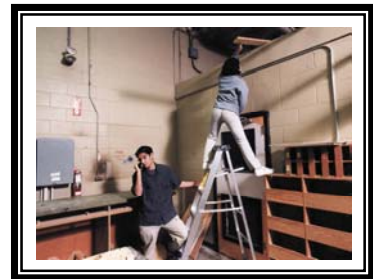
Visual Set - Worker on Ladder



See it

(how many unsafe acts or conditions can you find?)

- worker standing with one foot on ladder
- worker's other foot on unstable shelving
- worker too high on ladder
- worker reaching for board
- ladder positioned by door
- helper is on phone



Visual #4
O/H #5



Think it

(ask yourself, "Why is this a hazardous situation?")

- worker could fall off ladder
- shelving could collapse and worker could fall
- door could be opened and ladder and worker knocked over
- if worker falls, could land on helper
- worker could get shoulder/neck/back strain from overextending



Do it

(In this scenario, suggest how an accident can be prevented from happening)

- do not stand on top two rungs of ladder
- do not stand on unstable shelving unit
- worker should not overextend to lift board
- helper should pay attention to helping
- use taller ladder
- ensure that door will not be opened while on ladder

Teacher's Answer Key - Hazard Recognition

Visual Set - Worker Lifting Box



See it (how many unsafe acts or conditions can you find?)

- worker about to lift heavy box
- flammables in area (beside heating elements)
- area generally untidy / cluttered
- chemical substances in food prep area



Visual #5
O/H #6



Think it (ask yourself, "Why is this a hazardous situation?")

- worker could get back sprain/strain from lifting
- flammables exposed to heat could explode
- worker could trip over falling items
- food exposed to chemical substances



Do it (In this scenario, suggest how an accident can be prevented from happening)

- worker should use proper lifting technique
- chemicals and flammables should be moved away from food area
- clean up area (area too cluttered)
- worker should ask for assistance if box too heavy

Visual Set - Welder



See it (how many unsafe acts or conditions can you find?)

- worker not wearing goggles or gloves
- aerosol can and battery too close to work area
- tanks too close to worker
- paper towels on work bench



Visual #6
O/H #7



Think it (ask yourself, "Why is this a hazardous situation?")

- worker's eyes and hands could get burned
- possible explosion of tanks, battery and aerosol can
- paper towel on work bench could catch on fire



Do it (In this scenario, suggest how an accident can be prevented from happening)

- move tanks away from torch area
- wear personal protective equipment (goggles, gloves)
- move battery and flammable can away from work area
- clean up work area
- ensure safe work procedures are followed

Conclusion

Conclude / Comment

Hazard Evaluation determines the potential of the risk for injury and is based on assessing the risks associated with the unsafe situation. There are no comprehensive lists of what constitutes an A, B or C Type Hazard and often, your judgement will play a role in determining the type of hazard.

Remember the 3 steps to controlling a hazard.



See it. - Identify the hazards. What is unsafe?



Think It. - Evaluate the hazard. What could happen?



Do It. - Provide solutions to control or eliminate the hazard.