

Purpose

In this lesson, students brainstorm and research the major causes of workplace injury.

British Columbia Planning 10 Curriculum Connections

Prescribed Learning Outcomes	Suggested Achievement Indicators
<p><i>It is expected that students will:</i></p> <ul style="list-style-type: none"> Analyse practices associated with work-related risk reduction and injury prevention (e.g., safety training, hazard recognition, risk management, communication) 	<p><i>Students who have fully met the prescribed learning outcome are able to:</i></p> <ul style="list-style-type: none"> Describe and discuss standard guidelines and procedures for reducing risk and injury in the workplace (e.g., following established safety guidelines such as those set out by the Workers' Compensation Board, knowing own abilities and limits, using safety and personal protective equipment, knowing where to go to address a problem) List and discuss primary causes of injury to young workers (e.g., inability to recognize and respond appropriately to hazards, lack of training) Create a list of factors that contribute to making workers and workplaces physically and emotionally safe (e.g., safety training programs, team building, harassment policies) Propose strategies to minimize workplace hazards

Teaching Strategies

- Brainstorming
- Online or print-based research
- Independent or pair work

Suggested Time

- 1–2 hours

Materials and Resources

- Teacher Resource 3: Causes of Industry-Specific Injuries*
- Student Handout 7: Young Workers: Be a Survivor*
- Student Handout 8: Causes of Workplace Injury Assignment*
- Student Handout 9: Workplace Hazards Risk Reduction*

Assessment Strategies

- *Assessment Tool 3: Causes of Workplace Injury Assessment*

Preparation

- Print copies of the student handouts and teacher resources and review them before teaching the lesson.



1. **Introduce** the lesson by informing students that WorkSafeBC statistics indicate three main causes for the high rate of young worker injuries:

- Lack of supervision or training
- Minimal knowledge of rights and responsibilities
- Lack of experience in recognizing hazardous situations

2. **Ask** students if any have ever been injured on a job. Invite them to share any stories they might have. Then ask them to suggest jobs they think might be hazardous, and describe the sort of hazards and hazardous activities that workers might experience in those jobs. Remind students that a hazard is an action or situation that could cause injury or death. Record their responses on the board. Responses could include:

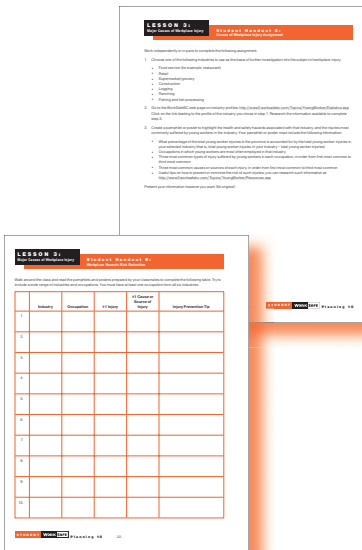
Hazardous Jobs	Hazards and Hazardous Activities
<ul style="list-style-type: none"> • Construction work 	<ul style="list-style-type: none"> • Lifting heavy items, operating equipment without proper training, repetitive work
<ul style="list-style-type: none"> • Logging work 	<ul style="list-style-type: none"> • Lifting heavy items, falling from trees, operating equipment without proper training, being pinned under falling trees
<ul style="list-style-type: none"> • Retail work 	<ul style="list-style-type: none"> • Lifting objects, working on ladders or other raised areas, using knives, workplace violence
<ul style="list-style-type: none"> • Warehouse work 	<ul style="list-style-type: none"> • Repetitive lifting of heavy boxes, unstable stacks of product, operating a forklift without proper training
<ul style="list-style-type: none"> • Restaurant work 	<ul style="list-style-type: none"> • Slipping, tripping, handling hot items, carrying heavy trays, coming into contact with hot oil

3. **Brainstorm** as a class possible major causes of injury in the workplace. Write students' answers on the board. Responses could include:

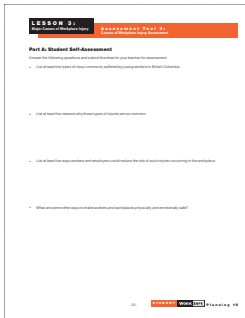
- a. Slips, trips, and falls
- b. Improper use of equipment
- c. Not turning power off when repairing equipment
- d. Being struck by falling objects or pushed into an object
- e. Improper use or storage of chemicals and other hazardous materials
- f. Improper handling of sharp objects (e.g., knives, glass, woodworking tools)
- g. Improper lighting
- h. Faulty equipment
- i. Vehicle accidents
- j. Improper lifting

LESSON 3: Major Causes of Workplace Injury

Instructional Plan continued



4. **Ask** students to guess the top seven dangers for young workers in British Columbia. Refer to *Teacher Resource 3: Causes of Industry-Specific Injuries* and *Student Handout 7: Young Workers: Be a Survivor* for relevant information. At the end of the discussion, distribute copies of the handout to students. Point out to students that the highest number of young workers are injured in the retail and restaurant sectors (see the WorkSafeBC young worker web site <http://www2.worksafebc.com/Topics/YoungWorker/Home.asp> for information on industry claim profiles).
5. **Distribute** *Student Handout 8: Causes of Workplace Injury Assignment*. Have students work independently or in pairs to complete the assignment. Ask students to choose a particular British Columbia industry to use as the basis for further investigation. Then, have them conduct online research and consult print materials (see Adaptations) to determine which hazards are common to that industry. Ask students to record statistics on injury rates and costs and to present the information in the form of a poster or pamphlet.
6. **Display** student posters and pamphlets around the classroom. Distribute *Student Handout 9: Workplace Hazards Risk Reduction* and have students walk around the classroom to fill in the table.
7. **Debrief** with a discussion about risk reduction techniques. Consult <http://www2.worksafebc.com/Topics/YoungWorker/Resources.asp> to find relevant information on how to minimize hazards in the top industries for young worker claims in British Columbia.



Adaptation

- If students do not have easy access to the Internet, arrange them in groups and have them share print research materials you can download from: <http://www2.worksafebc.com/Topics/YoungWorker/Statistics.asp> and <http://www2.worksafebc.com/Topics/YoungWorker/Resources.asp>

Extensions

- Have students work in groups to create skits that depict a specific workplace hazard and how the risks associated with it can be reduced.
- Invite a speaker from the WorkSafeBC Young Worker Speakers Resource to come to your class and speak about his or her own experience. Consult the WorkSafeBC web site for more information: <http://www2.worksafebc.com/Topics/YoungWorker/Resources-Speakers.asp>
- Have students work together to create a newsletter that focuses on the subject of workplace hazards and injuries. Content should include articles based on the data students presented in the posters and pamphlets they created. Students can distribute copies of this newsletter to other students in the school.

Assessment

- Distribute *Assessment Tool 3: Causes of Workplace Injury Assessment* and have students complete Part A. Collect these self-assessments and, in Part B, record your assessment of each student's work in this lesson.



The following are examples of possible causes of industry-specific injuries. For more detailed information, please see the WorkSafeBC web site for young workers (<http://www2.worksafebc.com/Topics/YoungWorker/Home.asp>).

Food service (restaurants, fast food outlets)

- Struck by objects
- Slips and trips (e.g., on greasy floor)
- Handling of hot items
- Contact with chemical substances
- Improper lifting
- Contact with hot items
- Horseplay

Food retail (grocery stores, supermarkets)

- Improper lifting
- Improper use of box cutter
- Repetitive lifting
- Poor posture
- Heavy loads
- Improper use of mobile equipment
- Contact with hot objects
- Contact with harmful substances or materials

Retail

- Improper lifting
- Poor posture
- Cluttered work area
- Improper use of box cutter (or other tools)
- Repetitive lifting or other work activities
- Lack of safe work procedures

Logging

- Improper use of equipment or tools
- Contact with running equipment
- Fall on uneven terrain
- Fall from large machinery
- Not following safe work procedures
- Not paying attention

Construction

- Repetitive lifting or motion
- Heavy loads
- Lack of personal protective equipment
- Lack of training
- Overhead hazards

Warehouse

- Improper lifting
- Lifting of heavy objects
- Unstable stacks of products
- Repetitive work activities
- Operating and working around moving equipment without proper training
- Not following safe work procedures

Young workers, be on guard

Take care on the job.
Your workplace can be dangerous.

BE A SURVIVOR



Count on some risk

Young workers have more injuries than any other age group in B.C. This is roughly how it adds up:

- 34 young workers injured every working day
- 5 permanently disabled each week
- About 5 die each year at work

Hardest hit are young male workers. They are 70 percent more likely to be injured than any other group of workers.

Your top seven dangers

Here are the top seven dangers for young workers in B.C.:

- 1 Lifting objects as retail clerks, shipper-receivers, labourers, material handlers
- 2 Working on ladders, stairs, scaffolding, other raised areas
- 3 Using knives in food service, retail sales, supermarkets
- 4 Working with hot substances or equipment in restaurants
- 5 Driving or riding in vehicles and operating or working near mobile equipment
- 6 Operating food slicers in restaurants, supermarkets
- 7 Working near running equipment or machinery in a variety of jobs

Tips for your best defence

- ✓ Always ask. Never assume you can do something you've never done before. Always have your supervisor show you how to do it safely.
- ✓ Use safety gear and protective clothing when your job calls for them.
- ✓ Always follow safe work procedures and get co-workers to do the same.
- ✓ Fix anything unsafe or report it to your supervisor — right away.
- ✓ Know how to handle any hazardous material you use on the job.
- ✓ Tell your supervisor if you feel at all unsafe.

Work independently or in pairs to complete the following assignment.

1. Choose one of the following industries to use as the basis of further investigation into the subject of workplace injury:
 - Food service (for example, restaurant)
 - Retail
 - Supermarket/grocery
 - Construction
 - Logging
 - Ranching
 - Fishing and fish processing
2. Go to the WorkSafeBC web page on industry profiles: <http://www2.worksafebc.com/Topics/YoungWorker/Statistics.asp>. Click on the link leading to the profile of the industry you chose in step 1. Research the information available to complete step 3.
3. Create a pamphlet or poster to highlight the health and safety hazards associated with that industry, and the injuries most commonly suffered by young workers in the industry. Your pamphlet or poster must include the following information:
 - What percentage of the total young worker injuries in the province is accounted for by the total young worker injuries in your selected industry (that is, total young worker injuries in your industry ÷ total young worker injuries)
 - Occupations in which young workers are most often employed in that industry
 - Three most common types of injury suffered by young workers in each occupation, in order from first most common to third most common
 - Three most common causes or sources of each injury, in order from first most common to third most common
 - Useful tips on how to prevent or minimize the risk of such injuries; you can research such information at: <http://www2.worksafebc.com/Topics/YoungWorker/Resources.asp>

Present your information however you want. Be original!

LESSON 3:
Major Causes of Workplace Injury

Student Handout 9:
Workplace Hazards Risk Reduction

Walk around the class and read the pamphlets and posters prepared by your classmates to complete the following table. Try to include a wide range of industries and occupations. You must have at least one occupation from all six industries.

	Industry	Occupation	#1 Injury	#1 Cause or Source of Injury	Injury Prevention Tip
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

Part B: Teacher Assessment

Use the following chart to assess student work during this lesson.

The student is able to:	Does not meet expectations	Meets expectations	Fully meets expectations	Exceeds expectations
Identify types of injury commonly suffered by workers in British Columbia		Student identifies some common types of injury	Student identifies most or all types of injury	Student identifies and describes all types of injury without prompting
Explain why those injuries are so common in British Columbia	Student isn't able to provide one reason why those injuries are so common	Student provides some reasons why those injuries are so common	Student provides most or all reasons why those injuries are so common	Student provides all reasons why those injuries are so common without prompting
Identify ways the risks of those injuries could be reduced	Student isn't able to identify any way the risks might be reduced	Student identifies some ways the risks might be reduced	Student identifies most or all ways the risks might be reduced	Student identifies and describes all ways the risks might be reduced without prompting
Identify strategies that could contribute to the physical and emotional safety of workers and workplaces	Student isn't able to identify any strategies that could contribute to workplace safety	Student identifies some strategies that could contribute to workplace safety	Student identifies most or all strategies that could contribute to workplace safety	Student identifies and describes all strategies that could contribute to workplace safety without prompting
Produce a pamphlet or poster that accurately represents important information about workplace safety	Student work is not submitted, or is submitted but is shoddily prepared or contains glaring inaccuracies	Student work is neatly presented, but does not contain comprehensive information and there are some errors	Student work is attractively presented, contains comprehensive information, and is error-free	Student work is attractively and inventively presented, contains more information than expected, and indicates further research was done

Teacher's comments: