



Government of Western Australia
Department of Commerce



Safety Passport Supplemental Activities

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Introduction

This booklet and the activities within have been sourced and modified from the original document “Health & Safety – Choices for Life”.

The “Choices for Life” activity guide is an activity based resource developed by WorkSafe New Brunswick, Canada, and is targeted from grades K to 12. The direct link to the document is;

http://www.youthsafenb.ca/en/nomercy/lesson_plans_and_activity_guides.aspx

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Department of Education:

Joseph Brennan
Consultant, Transition Programs

Mark Holland
Consultant, Sciences & Health

Margaret Layden-Oreto
Consultant, Guidance & Counselling, K-12 and
Health

Teacher Advisory Committee:

Tonya Chisholm
Minto Elementary-Middle

Elaine Fulton
Health and Safety Assistant
School Districts 17 & 18

George F. Kierstead
Technology, Bayside Middle

Danny H. MacLean
Biology/Chemistry
Tobique Valley High

Sylvia McConkey
St. George Elementary

Sean Newlands
Mathematics, Nackawic High

Lucy A. McLaughlin
Guidance Counsellor
Miramichi Valley High

Ian Rowe
Supervisor Special Projects
School District 8

Jean MacIntyre, District 17

Nancy Thériault
Dalhousie Regional High

Margaret Ryan
Science, Southern Victoria High

P. Micheal White
Bathurst High

Norma Shaw
Hartland High

Field Testing:

Mary Anderson
Learning & Technology Centre
District 16

Charlotte Casey
Health & Guidance
Harkins Middle

Connie Daley
Crisis Intervention/Guidance
School Districts 14, 15 & 16

Anneka Houtsma
Salem Elementary

Jennifer Goodine
Pennfield Elementary

Janet Miller & the staff of
Kennebecasis Park Elementary

Ellen Pottle
School-to-Work Transition
Coordinator, School District 17

Evan Woods
Learning & Technology Centre
School District 16

Donna Campbell
Salem Elementary

Natalie Corcoran
Learning & Technology Centre
District 16

Ann Fanjoy
Pennfield Elementary

Noreen Hachey
Birchmount School

David Hogan
Educational Consultant

Lorne H. Lyons
Automotive
Harbour View High

Gisèle Moleman
Salem Elementary

Doug Sussey
YAP District Coordinator
School District 13

***Choices for Life* written & developed by:**

Silvy Moleman
Curriculum Development Specialist
Workplace Health, Safety and Compensation Commission of New Brunswick
Development work: 1998 to 2000
Implementation: Fall 2000

CHAPTER ONE

Investigations & Reviewing

Accidents, Response & Prevention

Purpose

Investigate the various causes of accidents, means of responding to emergencies, the consequences of accidents, and methods of preventing accidents.

Key Concepts

Although we are all familiar with various types of accidents that have occurred, be cautious when discussing accidents with students; this subject may be sensitive for some students. A prior questionnaire completed by students could avoid an uncomfortable situation.

Required Materials & Equipment

N/A

Plan of Action

1. Group work: In small groups, students answer the following questions.

- Describe a number of real life experiences you have had with accidents or 'close calls' and/or accidents you have heard about or friends/family members have experienced.
 - What were the consequences of the accidents and/or 'close calls' (e.g. injuries, damage to property etc.)?
 - What were the causes of the incidents and how could they have been prevented?
 - Describe the emergency response for each of the accidents. Were they dealt with properly? If not, describe how they should have been dealt with.
- * Questions can be completed in a chart form.

2. Sharing information: Each group merges with another group and shares their work with one another.

3. Review of content: As a class, review the multiple causes of accidents, importance of emergency preparedness, effects of accidents on people's lives, and our role in preventing accidents.

Assessment

Participation in group work; completed chart.

Extension

1. Research the workplace: After choosing a workplace of their choice, students research the types of accidents which have occurred to employees or employers in that workplace. Students look for similar information as found on the previous page, questions 'A' to 'D' (i.e. the accident, emergency response, consequences and means of prevention).

2. Guest speaker: Invite an injured worker, hospital worker or WorkSafe staff member to share their experiences with accidents and injuries.

Argument of Obviousness

Purpose

Understand that accidents can have several potential causes and therefore can be prevented in several different ways.

Key Concepts

- There are several potential causes of an accident; therefore there are several potential ways to prevent the accident.
- Breakdown of an accident:
 - 1. Lack of control:** lack of guidance or direction (e.g. the workplace did not have a new employee safety orientation)
 - 2. Basic causes:** personal and job factors that are the actual origin of the accident (e.g. the worker was not trained on the use of fall arrest and the hazards of working at heights)
 - 3. Immediate causes:** symptoms of a greater problem; can be seen or sensed (unsafe acts or conditions) (e.g. the worker was too close to the edge of the roof and was not wearing fall arrest PPE)
 - 4. Incident:** causes harm or damage (e.g. the worker falls off the roof)
 - 5. Loss:** the result of an accident; harm to people, property or process (e.g. the worker breaks a leg).

Required Materials & Equipment

Articles/case studies related to sample, accidents, adhesive tape, paper & pencils

Plan of Action

Set up: Over time, collect a variety of newspaper articles or case studies depicting a number of accidents that have taken. Post the articles around the classroom.

Group work: In small groups, students circulate around the class and read each case/article. Group members discuss what they believe to be the causes of the accident.

Class discussion:

- Review the answers (the causes of each accident).
- Explain to the class that it is incorrect to think there is one obvious cause of an accident.
- Review each of the articles, providing examples of others causes of the accident which may be less obvious.
- How do people acquire such incorrect beliefs about the causes of accidents? What is the behavioural impact of holding such beliefs about accidents? How can we prevent such beliefs?

Dissecting an accident:

- Each student takes an example of an accident (fictional or real) and describes all the possibilities for the causes of the accident. A web-like model can be created, where the accident represents the core of the web and the extensions from the core are all the examples of possible causes of the accident. For example, a person was in a car accident - possible causes: road conditions, car malfunction, driver distracted, driver tired, influenced by alcohol/drugs, pedestrian walked in the path of the car etc.
- Secondly, students describe several examples of how the accident could have been prevented (i.e. ways in preventing any of the potential identified causes). For example, car accident occurred because of road conditions; prevention = slow down when driving in bad weather, don't drive in bad weather, get better snow tires etc.

Assessment

Involvement in group discussion; individual assignments (dissecting an accident).

Extension

Guest speaker: Invite a person from the community (police, WorkSafe) who, as part of their job, works at the scene of an accident. Ask him/her to share with the class the multiple causes of accidents, their impact, as well the many ways in which accidents can be prevented (e.g. better job training, don't drive in bad weather, obey safety regulations etc.).

In the classroom: Students describe accidents that can happen around the school (e.g. science lab, technology, gymnasium etc.) and brainstorm ways in which such accidents can be prevented.

Assessing Proper Training

Purpose

Review the importance of receiving proper training in any given workplace.

Key Concepts

- All employees have a need and a right to know how to work safely within the workplace.
- An employee's right to know includes receiving proper training, knowing the hazards within the workplace, proper use of equipment and personal protective equipment, safety data sheets (SDS), training (if applicable).

Required Materials & Equipment

Various information on jobs & their hazards

Plan of Action

1. Review & plan:

- Review the importance/rationale of receiving proper training upon entering a new workplace or new position in a workplace.
- Students plan questions to ask during an interview with two different people in the workforce related to the safety training received.

2. **Interview:** Students interview two people employed at two different workplaces. The interviews are focused on the training the employees received at the start of their job and training they continue to receive within their workplace.

3. **Summation:** Students compile the results of their interview in a written report. It is important that the report include the following:

- details of the training received by each of the two employees;
- comparison made between the two people interviewed with relation to their training;
- student's viewpoint on the adequacy of the training received by each of the employees;
- personal opinion of the student and the interviewee whether the employers and employees are taking proper precautions to prevent injuries at the workplace.

Assessment

Summation of interview in written report.

Extension

Work site visit: Visit the actual workplace of one of the people interviewed. Create a diagram of the floor plan of the workplace and highlight the areas of concern (i.e. locations for potential hazards etc.).

Did you Receive Proper Training?

Sample Interview Questions

- Describe the training you received when you began your job.
- Do you believe you received adequate training to do your job safely?
- What are the hazards in your workplace?
- What precautions and safety measures have you been instructed to take with regards to these hazards?
- What types of injuries and incidents have taken place in your workplace?
- What type of on-going training is offered in your workplace? Do you feel it is adequate? Why or why not?
- Describe the training offered to those employees who change job responsibilities. Do you believe this training is adequate?
- What improvements would you like to see in your workplace in terms of training?

Before and After

Purpose

Analyse the consequences and effects of unsafe decisions.

Key Concepts

- We make daily decisions and choices that affect our personal health and safety.
- In the financial year of 2008-2009, SafeWork Australia estimates that the estimated the total annual cost of unintentional injuries in Australia was \$60.7 billion dollars. For more information, see <http://www.safeworkaustralia.gov.au/sites/SWA/AboutSafeWorkAustralia/WhatWeDo/Publications/Pages/cost-injury-illness-2008-09.aspx>

Required Materials & Equipment

Construction paper, markers

Plan of Action

1. Show a movie and/or tell a story about a person who made an unsafe decision and the consequences of their decision (e.g. injury, loss, damage etc.)
 - If available, review statistics of common injuries related to unsafe decisions (e.g. workplace, recreational etc.).
 - Review and discuss how we make decisions.
 - With the help of student input, review all consequences of various examples of unsafe decisions.
2. **Students create:** Using available materials, students create Before & After pictures, Before representing a scenario involving a decision, After representing all the consequences of the unsafe decision (e.g. loss, damage, physical and mental effects, injuries, effects on self and family) as well as results of the safe decision.

Assessment

Student art work and participation in depiction of Before & After.

Extension

Designing for the workplace: The class creates Before & After pictures for specific workplaces within the community. Students will need to conduct research on the common injuries that have occurred in the workplaces as a result of unsafe decisions. Hang student posters for display within the workplace(s).

Cost of injuries: Drawing a line down the middle of the page, students separate a piece of paper in two, with one title on each side. Title #1: *I would like to spend my time...* with pictures representing an injury free life (e.g. playing sports, buying fun items etc.). Side and title #2: *Cost of injuries...* with pictures of the short and long-term effects of accidents (e.g. medicines, hospital, crutches, care givers, property damage etc.).

Did you know: Using available statistics and facts, students create *Did you know?* Informational posters based on injuries that take place and/or safe decision making. For example:

Did you know that ____ (# of people) ____ die each year due to workplace accidents and/or car accidents?

Did you know that wearing a seat belt can...?

Did you know that having # of alcoholic beverages can affect your driving....?

The real thing: Students conduct an interview or invite a guest speaker to class who has been injured due to an unsafe decision. Through their discussions, students will explore the impact the decision has had on that person's life.

Employment Standards

Purpose

Examine key facts of employment standards.

Key Concepts

Please note: Employment standards are not a WorkSafe issue, however we feel that their inclusion in this document is important as they relate to the well-being of employees and employers.

There are a number of employment standards one should be familiar with before entering the workplace. The following are a number of important employment standards: payroll and rules of payment; minimum wage and weekly rest period; paid public holidays; notice of dismissal, layoff or termination; vacations and vacation pay; maternity leave and child care leave; bereavement leave; employment of children; unfair employer action; equal pay for work of equal value

Required Materials & Equipment

Copies of employment standards fact sheets, film on employment standards (optional)

Plan of Action

1. Teacher oriented: Review the definition of employment standards. Why do they exist? What purpose do they have? How would the workplace differ if they did not exist or were not enforced? Compare current Western Australian employment standards to the past (e.g. 20 to 50 years ago) and to existing standards in other countries.

2. Group work:

- The teacher decides which of the fact sheets are relevant to the needs of the students, then passes out a different fact sheet to each working group.
- Groups review their fact sheet and discuss the meaning of the standard. Students work together to help each other understand the content.
- Each group is to do the following with the content of their employment standard:
 - a) summarize the meaning of the employment standard;
 - b) give examples of how the employment standard protects the worker;
 - c) create a scene from a workplace involving the employment standard.

* Stress to each group that they are responsible for helping teach the other students about their employment standard.

3. Presentations: Groups share their skits with the rest of the class.

4. Teacher oriented: Discuss the importance of employment standards as regulations in the workplace. Review the steps to take if these regulations are not followed (i.e. talk to your supervisor).

5. Writing assignment: In a one page report, students summarize the employment standards they have learned about and their importance and role within the workplace to both the employer and employee.

Assessment

Group work; group presentation; writing assignment.

Extension

Refer to the activity; What to Know about Employment Standards, for other ideas on employment standards.

Investigating Accidents

Purpose

Investigate and develop an understanding that: 1) accidents can be caused by a number of events; 2) accidents can have short and long term impact; 3) accidents can be prevented.

Key Concepts

It is important that students discuss and review the various reasons and causes of accidents, the consequences and results an accident may have and means by which accidents can be prevented.

There can be multiple causes of an accident making it difficult to explain or understand. Some examples of causes of accidents are: lack of skill; environmental conditions; being tired or ill; emotions (expression of); values (attitudes can affect actions); lack of knowledge.

Required Materials & Equipment

Photocopies of guide questions for group discussion

Plan of Action

1. **Working groups:** The class is divided into working groups of four.
2. **Group discussion:** Groups discuss points (A) through (D) as described below. Each group member is responsible for taking notes on the discussion.
 - A) Examples of accidents:** Group members describe various work-related/workplace accidents or injuries they have been involved in or have heard about **OR** show a video, provide newspaper articles or news reports as examples of work-related accidents. Each group chooses one workplace accident to focus on.
 - B) Causes of the accident:** The group describes all the possible causes of the accident. Which of the accidents was the most difficult to explain (i.e. identify the causes)? It is important that all possible causes be considered.
 - C) Consequences of the accident:** Students continue the discussion describing the consequences of the accident. Often it is easy to think of the immediate effects on the victim(s), for example the physical injuries. Students consider what may have been the short and long-term effects of the accident on the victim(s), family members of the victim(s) and other people that may have been involved. Describe how the accident may have affected the emotional/mental and physical well-being of the victim, as well any changes in his/her daily routine as a result of the accident.
 - D) Preventing the accident:** Describe how this accident could have been prevented. Many times an accident is blamed on fate, or the physical environment in which the accident occurred. Encourage students to look at the big picture (i.e. was the accident the end result of an on-going situation or set of circumstances).

3. Individual written report: Playing the role of an investigative reporter, students write a report based on their group discussion using the following headings:

Investigative Report

The accident

Causes

Consequences

Prevention

Assessment

Participation in group discussion; individual written report on the accident investigative report.

Extension

Promoting the message: Group members discuss and develop methods of promoting the key factors that could prevent the accident from re-occurring. Students then work on creating an effective way to deliver their message - a message that will both inform and inspire people (e.g. TV ads about drinking and driving). Encourage students to be creative in conveying their message (e.g. create a poster, TV or radio commercial, song).

Discussion: As a class, discuss the statement all accidents are preventable. Relate this discussion to everyday life events/activities and any existing conditions within the workplace.

Investigative Report - Guide to Discussion & Write-up

1. THE ACCIDENT

- Choose one accident - describe the nature of the accident, who was involved and what happened.

2. CAUSES

- Discuss what you think caused the accident. Come up with as many possibilities as possible (there are no incorrect answers).

3. CONSEQUENCES

- Describe what you think are the short and long term effects/consequences of the accident on the person/people involved.
- Do you think the accident has changed the person/people involved? How?
- How do you think the accident may have changed the everyday routine of the person/people involved?

4. PREVENTION

Describe all the ways in which you believe the accident could have been prevented.

Investigative Report:

Compile and list your group's comments in the form of an 'investigative report', using the same headings found on the previous page. For example:

- 1) The accident**
- 2) The causes**
- 3) The consequences**
- 4) Prevention**

Investigating Safety Habits

Purpose

Observe the safety habits of self and others, and make recommendations for safer decisions and choices.

Key Concepts

Every day we make choices and decisions that affect our safety and well-being.

Required Materials & Equipment

N/A

Plan of Action

1. **Scenario:** Present to the class a situation in which someone was injured due to an unsafe choice/decision/practice.

2. **Assign:** Each student chooses two different people and observes their safety habits (e.g. family member, worker, friend etc.).

- Through observation and questioning, students take note of unsafe practices that may lead to an injury or a close call. (Students will require a couple of days to complete this task.)
- Using a chart, students list the person's unsafe practices and consequences that may result; students then make recommendations for change. For example:

<i>Unsafe Practices</i>	<i>Consequences</i>	<i>Recommendations</i>
using a broken ladder	slip and fall resulting in a injury	buy a new ladder, fix ladder

- Once the research and chart is completed, students hand in the chart along with a written reflection on the following questions.
 - A - In your opinion, does gender seem to play a role in the unsafe habits or choices you observed?
 - B - In your opinion, does age play a role in unsafe choices made?
 - C - How did the people react when they heard your recommendations for change?
 - D - What recommendations can you make for yourself in terms of making safer choices?

Assessment

Participation and completion of chart and reflection questions.

Extension

Self-evaluation: Students complete the chart (found on the previous page) after evaluating their own choices and practices over a period of time.

Job Discovery

Purpose

Discover different types of jobs, their health and safety concerns, and means of preventing injuries while working.

Key Concepts

Many types of jobs exist, all unique in their duties, purpose, safety issues and concerns.

Required Materials & Equipment

Computers for research (optional), access to research materials

Plan of Action

1. **Create chart:** Students create a four cell chart. The cell titles are as follows:

- job title;
- job description;
- possible risks & hazards;
- means of prevention.

2. **Research:** When the table is created, students are given a set amount of time to research the desired content for a selected number of jobs. Encourage students to research jobs that are unfamiliar to them. You may wish to challenge the students to research unique types of jobs.

Example of chart, content and cell titles:

Job Title	Job Description	Possible Risks & Hazards	Means of Prevention
1. Mason (brick layer)	<ul style="list-style-type: none">• Lays bricks for houses, various structures and buildings	<ul style="list-style-type: none">• Working at heights, working with heavy materials, using substances that may be hazardous	<ul style="list-style-type: none">• Use proper scaffolding, proper lifting techniques, wear hard hat, work boots, helmet, fall arrest

Assessment

Design and content of chart and uniqueness of jobs researched.

Extension

Additional cells: Add other cells to the chart to attain additional information about the jobs. For example, work environment, typical working day, personal protective equipment required, etc.

Display: The charts are designed on a larger scale for display purposes (display in 'career corner' of the class).

Our community: Through interviews and research, students discover unique jobs in the community. Who is the largest employer? Are any products manufactured in the area? What types of services are offered? What are the major safety concerns in the community and in the workplaces of the community?

Job Fair

Purpose

Identify various types of jobs and careers that exist as well as the related health and safety issues and practices.

Key Concepts

There are an endless number of jobs that exist. It is important to choose a job/career you enjoy and find rewarding. Both genders should have equal opportunity to work towards a career of their choice.

Recommended Materials & Equipment

Access to various resource materials related to jobs and careers (Internet, books, videos etc.)

Plan of Action

1. Job choice & approval:

- Each student chooses a job/career of interest to study.
- Students submit a brief written application for approval describing the desired job of study, methods that will be used for research and some ideas of the type of presentation/display they will be doing. This work plan will help students organize the research and delivery of their project.

2. Research: Once their applications are approved (teacher makes sure a variety of jobs are being studied), students gather information for their chosen job using various resources (computer, texts, people resources/interviews etc.). The following questions can help guide students in their research:

- Describe the chosen job, the title, the duties and roles of the job.
- What type of working environment/location does this job have?
- What are the hazards/risks of the job?
- What safety precautions are taken (protective equipment & devices etc.)? How does a worker prevent accidents from occurring at this job?
- What education does one need to do this job properly?
- The research should include a job description section as well as a section on safety issues and practices on the job.

Assessment

Content and the presentation/display of the researched material.

Extension

Job fair presentation: The students' research is presented as a display in a class job fair. Students decide how to display their information to help teach others about their particular job of study. Visual materials pertaining to the job can be used and displayed. Tables in the classroom or the gym can be set up for students to display their work. Other classes can be invited to the job fair to observe the displays.

Guest speakers: Guest speakers from various jobs/careers can be invited into the classroom to discuss safety in the workplace.

Guide Questions - Discovering a Job

1. Describe the job/career you have chosen to study.
 - What is the job title?
 - What are the duties and responsibilities of this job?
 - What is a regular working day like at this job?
 - What surprised you about this job?
 - What motivated you to study this job?
 - What education must one have to do this job?
 - What other information can you tell me about this job?
2. Describe the working environment of the job.
 - Where is the office/location of this job?
 - Tell me about the other people who work at this job.
3. What are the hazards and risks associated with this job?
 - Are there safety hazards associated with this job?
 - Do injuries happen at this job? Provide examples of common job-related injuries.
4. What safety precautions are taken at this job?
 - Describe the safety measures taken at this job.
 - Are there personal protective equipment and/or protective devices at this job? Explain.
 - What type of training is involved with this job?

Lasting Effects of Accidents

Purpose

Gain an awareness of the short and long term effects and consequences of workplace injuries.

Key Concepts

Definition of accident: an event that results in unintended harm or damage; something that happens without being planned, intended, or known in advance.

Required Materials & Equipment

Tape, scissors, flip chart paper (optional), writing materials, markers (optional)

Plan of Action

1. **Class discussion:** Review the definition of accident. Discuss several examples of injuries that have occurred as a result of an accident (in the workplace, at home etc.). What were the consequences of such injuries? What effect did these injuries have on the individual and their family and how has the accident changed their life? Could the accident have been prevented?

2. **Immobilise body parts:** Using tape, students immobilise the three middle fingers on their writing hand. Instruct students to do a number of tasks (e.g. pick up items, write, peel an orange etc.) while their fingers are immobilised. Determine how long you wish for the immobilisation to take place, perhaps over lunch period.

3. **Reflection:** As a class or in groups, students reflect on their experience. Discuss how the hands are used in most things we do every day, which makes them prone to injury. Discuss the short and long term effects of injuries.

4. **Writing assignment:** Students write on the effects injuries have on the everyday routine of an individual. How do they think their life would change after an injury? How would things stay the same? How does a person adapt to injuries that result in the loss of a limb(s)?

5. **Art:** Students create hand safety awareness posters.

Assessment

Participation in immobilisation, writing assignment and art work.

Extension

Guest speaker: Invite a guest speaker to share with the class their experience in losing a limb as a result of a workplace accident (e.g. how they have adapted, how things have changed etc.).

Lasting Effects of Accidents

Materials: tape, paper, pencils, scissors, markers

Plan of Action

1. Your entire group has been injured on the job. You have **all** lost the three middle fingers on the hand that you write with.

A) Using the tape provided, **all** group members tape the three middle fingers of their writing hand down towards the palm of their hand to represent the injury.

B) While your fingers are taped, you and each of your groups' members attempt the following tasks using only your injured hand:

- 1) drop a pencil on the floor and pick it up;
- 2) write your full name and address on paper;
- 3) take your shoe on and off.

2. Remove the tape from your hands. Discuss as a group the challenges you faced doing the above task.

- ◆ Hands are used in most things we do every day, which makes them prone to injury.

3. As a group, create posters to help teach others about keeping fingers & hands free from injury on and off the job.

Media Review

Purpose

Reinforce the concept that all accidents are preventable; review a number of accidents and determine how they could have been prevented.

Key Concepts

Use caution when discussing/reviewing accident cases from the newspaper.

- Accidents are unplanned events which result in interruptions of the orderly flow (of the job) and which may result in property damage and/or injury or ill health to people.
- There are several potential causes of accidents, therefore there are several opportunities to prevent the accident, hence all accidents are preventable.

Required Materials & Equipment

Multimedia (e.g. local & state newspapers, web sites, magazine articles) where examples of accidents can be found

Plan of Action

1. **Collect articles:** Over a specific period of time, ask students to review the local and/or provincial newspaper and cut out articles related to accidents and injuries. The teacher should also collect articles for those students who do not have access to newspapers. Also encourage students to use the Internet to research on line.

2. **Review & write:** Individually or in small working groups, students review the articles and:

- write a brief description of the events described in the article;
- describe the effects of the accident (property damage, injuries);
- describe measures that may have been taken to prevent the accidents from occurring.

3. **Presentations:** Invite students to share their work with the class. Encourage students to add other suggestions for preventing the accidents.

Assessment

Students submit their article and article write-up for evaluation.

Extension

Reflection: Discuss the short and long term effects of accidents; the effects on the victim(s), the family & friends, the damage involved etc. What role do we all have in preventing accidents?

Research for Safety

Purpose

Investigate current programs, laws and products that share a common goal in injury prevention.

Key Concepts

There are several programs, laws, regulations, products and organisations that focus on injury prevention awareness.

Required Materials & Equipment

Availability of various research materials

Plan of Action

1. **Research projects:** In small groups or individually, students choose one of the research topics described below. Groups will conduct research in and out of class time and then present their work to the rest of the class. Groups choose their method of presentation; however, all groups will submit a summation of findings in a written report.

Research Topics:

A) Safety Laws: Identify any recent laws or regulations that have been implemented or are being considered in an effort to reduce the occurrence of injuries (e.g. seat belt laws, water craft laws). Which laws or regulations do you think are more effective than others? Are there laws and regulations that you do not agree with? If so, explain. Are there any laws and regulations that you wish to propose to help reduce the occurrence of injuries?

B) Public Awareness: Many companies and organizations try to raise public awareness about injuries. Look for evidence of such endeavours in your community (e.g. billboards, radio, TV commercials, displays, events). Describe your observations. Do you think they are all equally effective? What do you think is the most effective way of teaching people about injury prevention? Do you have any other suggestions for changing people's unsafe habits?

C) Safety Products: Many products have been created that help reduce injuries (e.g. hard hat, safety boots). List as many of these injury-reducing products as possible. What is the role of each of the products in injury prevention? Which are your favourite products? Which is the product you least enjoy and why? Can you think of other products that could be invented to help reduce the occurrence of injuries and their effects?

Assessment

Participation in research project, written report and presentation.

Making a Difference

Materials: flip chart paper, markers

Plan of Action

Your group has an awesome reputation for teaching others about important health and safety issues. Because of this, the city has given you a \$10,000 grant to help prevent workplace accidents.

1) As a group:

- Discuss how you could help teach the community about workplace health and safety.
- What types of things could you do to help reduce workplace accidents?
- What will you name your project?

2) Prepare a presentation using the method of your choice (for example, a skit, commercial, speech, song, or poster) that would describe your strategies for helping teach others about preventing accidents and improving workplace health & safety.

Searching the Internet for Health & Safety Issues

Purpose

Use the computer and Internet as a resource by searching for health and safety related content.

Key Concepts

There are a number of ways to research health and safety materials, resources and information. It is important that students be exposed to various resource materials, such as the Internet, computers, books, educational films, and materials put out by various different organisations.

Required Materials & Equipment

Health & safety Web site, guide questions for Internet search & organise access to computers

Plan of Action

1. **Assignment:** Depending on the computer facilities at your school, this activity may be assigned during class time or as an out-of-class assignment, to be completed individually or in small working groups.

- Students are provided with a listing of health and safety related Web sites to search using the Internet.
- After reviewing a selected number of sites, students answer questions found on the 'What did you discover?' activity sheet.

Assessment

Students pass in activity sheet for evaluation.

Extension

Variety: Each group is assigned a different Web site to explore, then shares their findings with the rest of the class.

Design & create: Students design their own health and safety Web site. They decide on the health and safety related topic, as well as the target audience (e.g. teens, younger students etc.).

Searching the Web for Health & Safety Issues

What did you Discover?

Your Internet search using the various health and safety related Web sites will help you answer the following:

1. What common issues were presented in the Web sites you reviewed?
2. What, if any, difficulties did you encounter while using the computer and Internet?
3. Which Web site did you enjoy the most? Why did it appeal to you?
4. List three examples of Australian statistics you discovered in your search.
5. Describe three facts about new/young workers.
6. Describe two ways in which new/young workers can protect themselves in the workplace.
7. How does the information on the Web sites help prepare you for entering a workplace?

Survey on Injuries

Purpose

Reflect on the impact injuries have on people's lives.

Key Concepts

Injuries can have numerous long and short term implications, affecting the person, their family, career choices and well-being.

Required Materials & Equipment

Construction paper, markers & scissors

Plan of Action

1. **Conduct a survey:** Each student conducts a random survey about injuries with a selected number of people (teacher should set a minimum number of participants). Students can design their own survey questions, or the teacher can provide them.

Sample survey questions:

- Have you ever been injured?
- What was the cause of your injury?
- Did your injury require hospitalization?
- How long did your injury affect you?
- Do you think your injury could have been prevented?

* Students compile the results of their survey on a chart.

2. **Share the results:** Students use their survey results to calculate percentages. Results can be displayed in various methods (% , charts, pie charts, bar graphs etc.) and shared with classmates. For example, % of people injured; pie chart illustrating causes of accidents; ratio of persons hospitalized to persons not hospitalized; % of injuries that could have been prevented.

- Compile the results of all the surveys into one large class survey.
- Discuss as a class the conclusions that can be drawn from the results of the survey.

3. **Invention:** Using art materials, students invent a new product that could help reduce the frequency of injuries. This product could be designed for a specific job or activity. Students put their product on display and attempt to sell it. Encourage students to use their imaginations to create fun and interesting new products.

Assessment

Survey design, completed survey, calculations, construction of the chart and analysis of the results; participation in the design of a product to prevent injuries.

Extension

Survey school staff: Students conduct a survey of school staff (teachers, administration, custodians, cooks etc.) on the most common types of injuries that take place at school. The class creates posters to help raise awareness of potentially hazardous situations within the school.

Quality & reliability: Discuss the reliability of surveys. As a class review data and statistical claims. Review what can affect the quality of a survey (e.g. type of questions asked, sample size etc.). This exercise allows students to evaluate the claims made by other surveys in terms of facts presented.

The Jobs in my Community

Purpose

- 1) Differentiate between the role of the employee and the employer.
- 2) Discover what types of jobs exist within the community.

Key Concepts

Definition of an employee:

- a) a person employed at a place of employment; or
- b) a person at a place of employment for any purpose in connection to the place of employment.

Definition of an employer:

- a) a person who employs one or more employees;
- b) a manager, superintendent, supervisor or any person having authority over another; or
- c) an agent of any person referred to in (a) or (b).

Required Materials & Equipment

N/A

Plan of Action

1. **Class discussion:** Define, describe, and compare the roles of the employee and the employer. Discuss the various employers, large and small, within the province (i.e. company names).

2. **Survey:** Individually or in small working groups, students are responsible for designing (in class) and conducting (out of class) a survey to inform others about the various types of workplaces that exists within their community. The survey can include questions that relate to:

- the age of the person surveyed
- gender - male or female
- their job title
- name of the employer/company
- level of risks and hazards on the job (scale from 1 to 10)
- other

Each group should be required to survey a minimum number of people, determined by the teacher.

3. **Report findings:** Students compile their findings using various mathematical methods (e.g. per cent, pie charts, graphs, ratio etc.). A written report should include conclusions based on the results of their survey. Items that can be included in the report are:

- percent of people working in trades, education or health care;
- percent of people working at high risk versus low risk jobs;
- ratio of men and women in specific workplaces;
- average age of employees and/or employers;
- most common type of workplace in the community;
- largest employer in the community.

Assessment

Students pass in the results of their survey in the form of a report.

Extension

Mapping results: Compile the results of all surveys and display in different forms (e.g. per cent, pie chart, bar graph) on an overhead, using a computer or on a handout. As a class, discuss the results.

Around the world project: Assign each student a different country to research the jobs within the major sectors of employment.

Typical Day in the Life...

Purpose

Reflect on the impact safety has in any given workplace.

Key Concepts

Safety measures and considerations are needed in almost everything we do, at home, during activities or in the workplace.

Required Materials & Equipment

Paper, pencils & research materials re: jobs

Plan of Action

1. **Brainstorm:** Students list as many adjectives as possible to describe their dream job (e.g. exciting, challenging, fun).
2. **Discussion:** Invite students to share their adjectives with the class. Have adjectives been used to describe a safe workplace? If not, question students on the need for their dream job to keep them safe, free from injury and harm. i.e. avoid a 'nightmare job'.
3. **Timetable:** Students choose a workplace. After conducting some background research on their chosen job, students create a timetable of what they believe to be a typical day on the job. Students then review their timetable and describe where safety should be considered as part of the activities of the working day. For example:

Working day of a Chef

8:00a.m. to 11:00a.m.

- Prepare foods for cooking - safety concerns: using sharp cutting utensils; good housekeeping to prevent slips, trips and falls.

11:00a.m. to 2:00p.m.

- Cook meals - safety concerns: working around flames and heat; working in a small area; must wear proper clothing; sterile conditions to avoid food contamination; drink lots of fluids to avoid dehydration.

2:00p.m. to 4:00p.m.

- Clean the kitchen - safety concerns: using cleaning products, carrying and lifting properly.

* The most important part of this activity is that students realize safety should play a role in all daily tasks, regardless of type of job or activity.

Assessment

Contents of timetable and reflecting on safety in the working day; writing exercise found within the Extension.

Extension

Employee & employer: Students write a fictitious diary entry for an employee and an employer in a given workplace. The entries should describe how their safety concerns may differ from each other (and how they may be the same), and their expectations for one another with relation to health and safety.

What if we Ignore Accidents?

Purpose

Discover the importance of accident reporting and investigation.

Key Concepts

- When an accident occurs that requires medical attention and results in lost time from work, the employer and/or employee should notify WorkSafe.
- WorkSafe conducts an investigation of workplace incidents and injuries that require hospitalization.
- Accident investigations are not conducted to lay blame but rather to: 1) gather information regarding the incident; 2) identify the causes of the incident; 3) determine corrective action to prevent recurrence of the incident.
- If injuries resulting from a workplace accident are not reported, the worker will not be eligible for workers' compensation in the event of time lost from work.

Required Materials & Equipment

Copies of Guide Questions for Investigating an Accident

Plan of Action

1. **Scenario:** Ask the class to share their thoughts on the following scenario.

You are the supervisor of a workplace. A phone call has informed you of an accident involving a worker who has been badly injured while on the job. Describe all the things you would do, from arriving at the accident scene to 24 hours after the accident.

- Review content found under Key Concepts.

2. **Investigate:** In pairs, students take part in the following exercise:

- Student #1 - describes to his/her partner an accident that took place in a workplace, in which a worker was injured. The accident can be fictitious, taken from the newspaper, or an accident they are familiar with. The student describes all the details of the accident to their partner (details are fictitious).
- Student #2 - conducts an investigation of the accident reported, by asking their partner questions.

* The details of the accident are not as important as having students work together and reflect on the cause-and-effect relationship of the accident.

3. **Conclude & present:** Once the students have completed the investigation of the accident, they make recommendations for preventing the recurrence of the accident.

- Pairs present their accident, investigation and recommendations to the class. Models or diagrams can be created to help in this process.

4. **Teacher oriented:** Summarize and review the importance of accident investigation and its relationship with accident prevention.

Assessment

- Effort and content of investigation; participation in presentation.

Extension

- **Guest speaker:** Invite a person who is involved with accident investigation to share his/her experience with the class
- **Tools for investigating:** Students react to the following:

You have just been assigned the job of safety officer for WorkSafe. You are responsible for conducting accident investigations. Compile a list of details you would include when investigating an accident (e.g. what would you look for, questions to ask the victim and witnesses etc.).

* Lists can be non-fictitious or fictitious; however, students must describe the rationale for their list of items.

Guide Questions for Investigating an Accident

1. What was the date, time and location of the accident?
2. Describe exactly what the injured worker was doing at the time of the accident.
3. Describe the accident.
4. How long has the injured worker been employed at the workplace?
5. Was the injured worker authorised to use the equipment or perform the task at the time of the accident?
6. Was the task being performed according to procedures (i.e. proper PPE, proper equipment being used, safety rules and/or procedures being followed)?
7. Describe the injury (ies) and/or damage caused by the accident.
8. Had the worker received proper training and instructions in doing the tasks?

9. Were there witnesses to the accident? If so, describe what they saw and what they were doing at the time of the accident.

10. Were the proper procedures followed in response to the incident? If not, what was lacking, i.e. what changes could be made to improve the emergency procedures?

11. Has a similar type of accident occurred in this workplace before? If so, were changes made to prevent the accident from reoccurring?

12. Describe the causes, circumstances or contributing factors of the accident.

13. Describe your recommendations for preventing the recurrence of the accident.

What is WorkSafe?

Purpose

Identify the role of WorkSafe in the workplace and within the community.

Required Materials & Equipment

Teacher resources: Several copies of WorkSafe information pamphlet and/or access to the WorkSafe web site, copies of activity sheet

Plan of Action

1. Question period: Begin the discussion by asking students a series of questions regarding health and safety in the workplace. For instance:

- Do we have rights as an employee in the workplace?
- What happens if an employee is injured at work?
- If we are unable to work due to a work-related injury are we compensated/do we still get paid?
- What if an employee feels their workplace is unsafe?
- What is WorkSafe, and what does it have to do with employees and employers in the workplace?

2. Assign questions: Distribute to small working groups WorkSafe information pamphlets and copy of activity sheet. The WorkSafe pamphlet and/or WorkSafe website will aid in answering questions found on the activity sheet. Groups may focus on a number of the questions or be assigned to answer all of the questions.

Assessment

Completed activity sheet.

Extension

Present findings on WorkSafe: Students think of creative ways to present their work to the rest of the class. Presentation methods can vary for each group. The teacher may set limits by giving groups specific materials and instructions to use for their presentation.

Guest speaker: Invite a WorkSafe staff member to the class to discuss the organisation and their role in protecting employees and promoting health and safety within the workplace.

Newspaper: Students create a fictional advertisement for the employment section of the Classifieds describing an opening for a position at WorkSafe.

What is WorkSafe? Questions to Ponder

*** The WorkSafe website will help you answer the following questions:**

- 1.** Introduce yourself as a WorkSafe staff member to the rest of the class. What will you tell us about your job and about whom you work for?
- 2.** Describe the responsibilities of the employer in the workplace.
- 3.** Describe your rights as an employee and provide an example.
- 4.** In your opinion, describe what impact injuries and accidents in the workplace can have on workers.
- 5.** What does prevention mean? How does WorkSafe attempt to prevent injuries and accidents?
- 6.** What is the definition of rehabilitation?
- 7.** Where is WorkSafe located? Which office is closest to you? How can you contact the staff?

What's Involved in an Accident?

Purpose

Investigate the multiple causes of accidents, the effects of accidents and means of preventing accidents.

Key Concepts

An accident is an unplanned event which results in interruptions of the orderly flow; this may result in damage to property and/or injury or ill health to people. There are several potential causes of accidents, therefore several opportunities to prevent the accident.

Required Materials and Equipment

N/A

Suggestions for Activities

Mystery show: Students prepare a scenario of an injury/incident in the form of a mystery. Groups prepare clues for the class. Their classmates investigate and come up with a list of suspects (i.e. people involved), the causes and means of preventing the event.

Fairy tale trials: Groups of students prepare a scenario of a mock trial involving a workplace, an accident/incident and its victim(s). Students use fictitious characters from nursery rhymes, fairy tales, or TV shows. For example, Humpty Dumpty charges a workplace for falling off the wall or Cinderella has a repetitive strain injury from doing housework. Students write out and present all the facts about what happened, the damage (property and human), how the accident could have been prevented, associated costs and who was implicated in the event. Let classmates be the judge.

Assessment

Students write and pass in a personal reflection on their role in preventing accidents.

CHAPTER TWO

Personal Safety

Does anyone know what this is for?

Purpose

Gain an understanding of the importance of first aid kits in an emergency situation and become familiar with the role of the items contained within the kit.

Key Concepts

- Specific tools are useful for taking care of injuries. Such tools can be found in a first aid kit. However, there are other items that can be used if a first aid kit is not available, for example, sticks, tape, blankets, and clothes.
- Stress the importance of avoiding contact with body fluids from open cuts (e.g. blood born pathogens). Also, review the use and importance of Epee Pens.

Required Materials & Equipment

First aid kit (optional)

Plan of Action

1. **Teacher oriented:** Review the role and importance of a first aid kit in an emergency situation. It is important that first aid kits be accessible during our daily activities (e.g. home, school, sports, work, etc.).

2. **Brainstorm - group work:** Provide small working groups with a different item from a first aid kit (or simply the name of the item). Students research the use of the item, and then present it to the class using the method of their choice. For example, why, when and how do we use bandages?

Suggested means of presenting the information:

- students act out a scenario using the item;
- students create posters or advertisements for their item;

3. **Presentations:** Each group presents their work to the class.

4. **Summary:** Review the importance and need for accessibility of first aid kits in daily activities.

Assessment

Participation in discussion, group work and presentation.

Extension

Guest speaker: Invite a speaker from the Red Cross, St. John Ambulance or the local hospital to discuss emergency response and the importance of the maintenance and availability of first aid kits.

Substitutes: Brainstorm ideas for substitutions for items found within a first aid kit (i.e. if such items were not available during an emergency). For example, you are bleeding; you don't have a bandage, so you use a clean t-shirt or sheet to wrap the cut.

Additional training: Inform students of opportunities that exist within the community for first aid, CPR and other related emergency response training/certification.

Sample Contents of First Aid Kit & Their Role

- Adhesive bandages: available in a large range of sizes for minor cuts, abrasions and puncture wounds.
- Butterfly closures: these hold wound edges firmly together.
- Rolled gauze: these allow freedom of movement and are recommended for securing the dressing and/or pads. These are especially good for hard-to-bandage wounds.
- Non-stick sterile pads: these are soft, super absorbent pads that provide a good environment for wound healing. These are recommended for bleeding and draining wounds, burns, and infections.
- First aid tapes: various types of tapes should be included in each kit. These include adhesive, which is waterproof and extra strong for times when rigid strapping is needed; clear, which stretches with the body's movement, good for visible wounds; cloth, recommended for most first aid taping needs, including taping heavy dressings (less irritating than adhesive); and paper, which is recommended for sensitive skin and is used for light and frequently changed dressings.
- Items that also can be included in each kit are tweezers, first aid cream, thermometer, an analgesic or equivalent, and an ice pack.

Featuring the Five Senses Against Injuries

Purpose

Reflect on safe and unsafe feelings; describe the role of the five senses in injury prevention.

Key Concepts

When it comes to personal safety and well-being, it is important to pay close attention to feelings. Using our five senses and paying attention to any feelings of danger or threats to personal safety, are important in preventing injuries and accidents.

Required Materials & Equipment

Student resources: Markers & drawing paper

Plan of Action

1. **Assign:** Ask students to write about an incident during which they felt unsafe. They should describe what caused them to feel unsafe and how they reacted to the situation. Did they do anything to change the situation or get away from whatever was making them uncomfortable?

- Before inviting students to talk about their unsafe situation, the teacher should share with the class a personal experience in which he/she did not feel safe. This may be of a sensitive nature for some students, so students should not be pressured to share their experiences aloud. **OR** students write personal experiences anonymously and they are read aloud by the teacher.
- Review safe and unsafe feelings and the importance of paying attention to and acting on personal feelings.

2. **Brainstorm:** As a class or in groups, describe how we can use each of our five senses (sight, smell, taste, touch, and hearing) to prevent accidents/injuries. The answers will vary depending on the age of the students in the group.

3. **Illustrate:** Using examples, students illustrate the role of each of the senses in injury prevention. For example, we can smell and taste smoke during a fire; we can see that someone is using the machine improperly etc. Students may wish to design a cartoon strip entitled: Featuring the Five Senses Against Injuries.

Assessment

Description and illustration of the role of the 5 senses in injury prevention.

Extension

Safety word lingo: Students list traits that would describe a safe environment.

The Five Senses Against Injuries

Materials: flip chart paper, markers, paint, paint brushes

Plan of Action

1. List:

- As a group, describe how we use each of our five senses (sight, smell, taste, touch, and hearing) to prevent accidents/injuries. For example, we can smell and taste smoke during a fire; we see that it is unsafe to cross the road; we can taste food that has gone bad.

2. Create:

- Using the materials provided, illustrate many examples of how each of the five senses helps protect us from injuries and accidents. **Use a different piece of flip chart paper for each of the five senses.**

Find the Risks & Hazards

Purpose

Practice hazard recognition and describe means of reducing the risk of an injury.

Key Concepts

- A hazard is a condition or practice which has the potential for an accident or loss. A key element in any safety program is the recognition of hazards.
- A risk is the probability or chance of an accident or loss.

Required Materials & Equipment

Copies of hazard cartoon, paper & pencils

Plan of Action

1. **Activity sheet:** Distribute copies of the hazard to each student. Students are to:
 - a) identify areas that may be of concern to the health and safety of the workers within the scene;
 - b) describe how the risk of injury or incident can be lessened or avoided.
2. **Discussion:** Define and differentiate between hazards and risks. Review the cartoon locating all the hazards.
3. **Create:** Students create their own hazard cartoon depicting a scene of hazards that may be found within a workplace, activity, or in a classroom setting of their choice (e.g. science lab, gym). Once completed, students distribute their cartoon and challenge others to identify the hazards in the scene. (The teacher may wish to photocopy the students' hazard cartoons for distribution).

Assessment

List of hazards and means of minimizing their risk for an injury; effort in creating their own hazard cartoon.

Extension

Additional hazard cartoon questions: In reviewing the hazard cartoons, older grade students answer the additional questions:

- A) As the employer in the workplace depicted in the cartoon, what type of training do you need to provide to your employees?
- B) As an employee in the workplace depicted in the cartoon, where might you practice your right to refuse dangerous work?

School-wide challenge: Pin up, in the hallway of the school, student created hazard cartoons. Open the contest to all interested students with the challenge of identifying the most hazards within the workplace scene. Along with identifying the hazards, students must describe means of lessening the risk of injury. Students pass in their answers (prize for winner?).

Real life hazard scene: The teacher sets up several hazards in a part of the classroom (lab or gym). Instruct students to sit away from the hazards but take note of what they observe. What is wrong/unsafe in the classroom? As students identify the hazards, review why they are hazards and what potential injuries could result.

What's wrong with this picture?

* Instructions *

Materials: one copy of cartoon sheet for each student,
pens/pencils & extra writing paper

1. Divide the class into small working groups. Pass out copies of the cartoon to each group member.
2. Explain to the students that they have to find as many things wrong in the picture as possible, in relation to health and safety. For each item identified the group receives one point. The group receives two extra bonus points if they also indicate the proper/safe way of doing it.

* All group members work together. Only one answer sheet is passed in for each group (the group may want to choose someone to record their answers).

3. In their groups, students discuss the following:

A) As the employer/boss in this workplace, what type of training should I provide my staff?

B) As an employee/worker in this workplace, where might I practice my right to refuse dangerous work?

* Review all answers as a class.

Identifying the Hazards

Purpose

Identify examples of hazards that exist in everyday life, be it at school, at home or in the workplace.

Key Concepts

- Increasing awareness of everyday hazards will help prevent accidents. A key element in any safety program is the recognition of hazards. Being aware of the hazards will reduce the risk of injury.
- Definition of hazard: a condition or practice which has the potential for an accident or loss.
- Definition of risk: the probability or chance of an accident or loss.

Required Materials & Equipment

Movie related to content (optional), TV & DVD (optional), paper, pencils & clipboard (optional)

Plan of Action

1. **Brainstorm:** Determine what types of things should be investigated and observed during a workplace inspection (school or workplace). Review the meaning of hazards and risks and their relationship to accidents.

2. **Working groups:**

A) In small working groups, students conduct independent audits, each group visiting a different part of the school and taking note of the hazards (e.g. science lab, cafeteria, school yard, gym etc.).

* **Note:** Should inform school staff that students will be circulating.

B) Students make a list of the potential hazards in the area and then prioritize this list from greatest risk to lowest risk (e.g. top five hazards).

C) Groups prepare a presentation on their top five hazards within the school. The presentation can be in the form of a poster, skit etc., but must include a proposed solution to minimize the risk of injury.

Assessment

Participation in audit, effort in listing potential hazards; group presentations and proposal to minimize the risks.

Extension

Each student describes a job they have done or are currently doing (anything from baby-sitting, newspaper route, mowing the lawn etc.). First, students describe the job duties and responsibilities. Second, they identify the risks, hazards and means of minimizing the chance of an injury taking place.

False sense of security: Discuss and develop a list of factors that give people a false sense of security in any type of setting. For example, this may not be the safest way but it's faster and I've been doing it this way for years and have never been injured. Discuss reasons to be cautious about having a false sense of security.

Game: Develop an orientation game within the school and playground through which students identify the hazards at each of the stations.

Investigating Your School

Materials: paper, pencils, flip chart paper, markers

Plan of Action

1. **Investigate:** Read over **all** directions before you start.

- Your group has been hired to inspect your school for possible dangers. As a group, circulate around the main floor of the school to inspect for hazards that could potentially cause an accident.

The investigation should take no more than 15 minutes.

- **During your investigation you will need:**

- 1 - Paper & pencil
- 2 - Something hard to write on (e.g. clipboard, text book)
- 3 - Suggestions for investigating your school for hazards (found on the next page)

2. **Recommendations:**

- After you have completed your investigation, use the flip chart paper and markers to list all the hazards you discovered around the school. **List the hazards in order of importance** - for example, hazard #1 is more serious than hazard #5.
- What recommendations could you make to the principal for making the school safer?

Suggestions for Investigating your School for Hazards

The following are examples of things to look for during your investigation of the school. The possibilities are endless - keep your eyes open for anything that could cause an accident.

- ◆ Air quality - control of dust, gases, temperature, humidity, proper ventilation.
- ◆ Building & structure - condition of windows, doors, floors, exits, aisles, ramps, guard-rails, garbage removal & storage, roof, walls.
- ◆ Fire prevention - smoke alarms, sprinkler system, fire exits well-marked with lighted signs, fire exits unobstructed, and fire extinguishers exist and are checked monthly.
- ◆ Furniture - good condition, no sharp edges.
- ◆ First aid kits - exists, available and maintained.
- ◆ Walking and work areas - clean, good repair, non-slip carpets, proper lighting.
- ◆ Hazardous materials (e.g. cleaning materials) are stored properly.

Making Safe Decisions

Purpose

Define what constitutes a safe decision.

Key Concepts

Definition of dangerous: likely to cause harm; risky; unsafe; hazardous risk.

Required Materials & Equipment

Various examples of scenarios, decision making model and/or process

Plan of Action

1. Teacher oriented:

Using examples, describe various decisions that are made. Differentiate between challenging decisions and common decisions (ones we rarely think twice about). How can decisions affect our health, safety and well being?

2. Working groups:

- The class is divided into groups. Each group is provided with a number of scenarios that involve decision making.
- Groups discuss all the choices and consequences, both safe and dangerous, involved with each of the scenarios. The group decides which decision is the safest
- Groups invent their own scenario which people their age may encounter, and then challenge other groups to make the safest decision.

3. Presentations: Each group prepares a skit/role play based on one of their scenarios. Skits are focused on making the safest decision and are presented to the rest of the class. **OR** students create a chart to show where safe and unsafe decisions may lead and present the chart to the class.

4. Individual writing assignment: Students write a one page report on decision making; the report should include comments on what makes a decision safe.

Assessment

Teacher and peer evaluation on the safe decisions made within the skits; writing assignment on making safe decisions.

Extension

Student scenarios: Rather than provide students with scenarios, provide them with a theme or topic which they use to create their own scenarios. These scenarios should compare safe and dangerous decisions.

Decisions that Work for You - Sample Scenarios

Scenario #1: You are driving a transport truck late at night. To keep awake you drink lots of coffee. You have been driving since 5:00 a.m. because you have a deadline to meet, but you are very tired. Should you keep going or should you stop?

Scenario #2: As a part time job, you are working at a fast food restaurant. When it is time to put a new batch of French fries into the deep fryer, you notice a lot of ice on the fries (the more ice, the more cooking oil splatters). There is a huge crowd waiting for their food. Your boss is watching. What should you do?

Scenario #3: You are baby-sitting a two year old boy. The phone rings while you are giving the toddler a bath. The bath has helped stop him from crying, which he has been doing for an hour straight. You look at your watch and realize that it is the parents calling to check-in. You don't want to worry the parents, but you don't want the toddler to start crying again. Do you leave him in order to answer the phone or do you take him out, risking that he will start crying again?

Scenario #4: You are in a science lab working with hydrochloric acid. You are wearing gloves but you forgot protective goggles. You aren't worried because you've never spilled it before. Do you stop to get your goggles or do you continue working without them?

Scenario #5: You are instructed by your boss to get materials from the warehouse. Your hard hat is in another building but your boss needs the material immediately. Your boss gives you the 'OK' to go in without your hard hat. Do you go in without your hard hat or do you refuse to go in until you have your hard hat?

Scenario #6: The faster you work, the more money you will make and the sooner you can go home. It may not be the safest way to do the job, but you have been doing it that way for years and nothing has ever happened to you. Should you slow down to do it safely or should you keep going, make more money and be done sooner?

Making Safe Decisions

*** sample breakdown of a scenario**

Scenario: You are instructed by your boss to get materials from the warehouse. Your hard hat is in another building but your boss needs the material immediately. Your boss gives you the 'OK' to go in without your hard hat. Do you go in without your hard hat or refuse to until you have your hard hat?

Choices:

1)

- take the time to get your hard hat
 - boss has to wait and is angry with you
 - no worries about hitting your head
 - boss gets over it
 - go home safely, without a head injury
-

2)

- go in without hard hat
- box falls on your head
- go to hospital, wait for hours
- need stitches and money to pay for subscription drugs
- headache for days, miss one week of work

Safe Decisions

Materials N/A

Plan of Action

1. Scenarios:

- One group member reads aloud each of the scenarios found on the next page. After each scenario is read, the group:

A - determines the safest decision possible;

B - discusses the most unsafe decision possible and the consequences of that decision.

2. Create:

- The mayor has asked your group to teach elementary students about:

A - the importance of making safe decisions, and

B - how to make safe decisions.

- You can decide to do this in any way possible (e.g. a skit, posters, TV commercial, song etc.)

Decisions that Work for You ~ Sample Scenarios

Scenario #1: You are driving a transport truck late at night. To keep awake you drink lots of coffee. You have been driving since 5:00 a.m. because you have a deadline to meet, but you are very tired. Should you keep going or should you stop?

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Scenario #4: You are working with a large machine that cuts wood. You don't know how to turn the machine off properly. What should you do?

Scenario #5: Your boss asks you to move some boxes. You are working alone and can barely lift or move the boxes as they are so heavy. What should you do?

Scenario #6: You are painting in a very high place. The ladder you are using is old and seems to be damaged. You are rushing to finish the job. What should you do with the ladder?

Safety = #1 Decision

Purpose

Practice safe decision-making.

Key Concepts

When making decisions in any given environment, situation or workplace, your safety should always come first.

Required Materials & Equipment

Various scenarios, construction paper, glue, index cards & dice, paper & pencils

Plan of Action

1. **Prep work:** Teacher photocopies various scenarios and glues them to construction paper approximately the same size and shape as playing cards. Make enough cards for groups of four students to play at least four cards each (20 to 16 different scenario cards for each group).

2. **Play cards:**

- Divide the class into groups of four. Each group receives a stack of scenario cards (approx. 16 to 20 cards per group) and one die.
- Taking turns, each group member rolls a die. The number that comes up will be the amount of points the student collects if they answer the scenario card correctly. The student then picks a scenario card, reads it aloud, and proceeds to tell the group what they believe to be the safest decision to make regarding the scenario.
- If applicable, students will also identify which of the three rights of a worker would best describe the selected scenario.
- The three other players vote on the accuracy of the answer. If the group decides that the answer is correct, the player receives the amount of points that were rolled initially on the die. Each group member should be involved in keeping score.

3. **Writing assignment:** Using index cards, students create a “recipe” for making safe decisions. Students describe a number of steps, similar to the steps of a recipe that one may take in order to make safe decisions.

Assessment

Involvement in playing card game; creativity and content of recipe cards.

Extension

Students create: Instead of providing students with scenario cards, students can create their own playing cards (using various scenarios involving safe decision making). Each of the groups can challenge other groups with their created playing cards.

Sample Decision Making Scenarios

(cut and paste for playing cards)

- You don't know how to properly turn off the machine.
- You have to move very heavy boxes.
- The ladder needed to do the job is cracked.
- You are working in a high area. Your fall arrest harness is too large for you.
- During the work day, your boss does not give you any breaks (i.e. to eat).
- Your colleague puts your safety at risk.
- The seat belt is broken in the truck you must drive.
- The baby you are watching won't stop crying.
- You aren't wearing the proper clothing for the job.
- You feel sick and light headed but need to get the job done fast.
- You have been instructed to do a task you have no idea how to do.
- You keep tripping on a mess on the floor at work/school.
- You need to go home but the driver of the car has been drinking alcohol.
- Your friends want to dive off a high bridge into the lake.
- You are sailing with no life jacket.
- You have to walk home alone, late at night.

Safety Word Association

Purpose

Define and differentiate between safe and unsafe behaviours and attitudes in the workplace, be it the class, school, playground, part time or summer job.

Key Concepts

Informed decision making allows one to choose and differentiate between safe and unsafe behaviours.

Required Materials & Equipment

Paper, pencils & ruler

Plan of Action

1. **Building a table:** Divide the whiteboard into two columns, with column titles safe and unsafe. Students can create their own table.
2. **Define:** As a class discuss what it means to be safe and unsafe.
3. **Complete the table:**
 - Students fill in the table with words that are associated with safe and unsafe.
 - Another section is added to the chart to represent words associated with safety at the workplace and unsafe at work.
 - Example of the table set up:

Safe - fill in with definition	Unsafe - fill in with definition
All words associated with <u>safe</u>	All words associated with <u>unsafe</u>
All words associated with <u>safe at work</u>	All words associated with <u>unsafe at work</u>

Encourage students to complete the table with words that relate to health and safety. There are no incorrect answers.

Extension

Additional cells: Add other cells to the chart related to safety in the workplace. For example, a safety equipment cell can be added to the safe side of the chart (e.g. bike helmet, knee pads, safety glasses, hard hat).

Example of Completed Word Association Chart

Safe: free from harm or danger, secure, careful	Unsafe: dangerous, hazardous, risky
Examples of words associated with <u>safe</u>: home, help, parents, school, sidewalk, seat belt, bike helmet, lights, life jacket, friends, security	Examples of words associated with <u>unsafe</u>: alone, dark, night, scared, accidents, injuries, strangers, unfriendly, risks, needing help
Examples of words associated with being <u>safe at work</u>: protection, hard hat, training, working together, get help, follow rules, listen to instructions	Examples of words associated with being <u>unsafe at work</u>: careless, rushing, stubborn, lazy, forgetful, not talking, working alone, taking risks, don't care, horse play

Taking Risks

Purpose

Differentiate between low and high risk behaviours and the impact choices and behaviours have on health and safety.

Key Concepts

- Every day people take risks. There are various types and degrees of risks. It is important to be able to differentiate between a decision that involves high risk and one that involves low risk.
- Some risks can have a positive result or impact (e.g. flying, getting married, starting a business, buying a product). Other risks can have a negative impact as they may result in harm, damage or something one may later regret (e.g. drinking and driving, not wearing a seat belt, diving off a bridge).
- Synonyms of risk: danger, jeopardy, gamble, peril, venture, uncertainty, chance.

Required Materials & Equipment

Various examples of scenarios in which risk is involved

Plan of Action

1. Define risk:

- Students define, provide examples and synonyms for the word risk.
- With a partner, students describe examples of risk a person their age may take, and differentiate between risks that may have a positive or negative impact.
- As a class, discuss the results. Elaborate on why some have a positive impact and others a negative impact. How do risks relate to our health and safety?

2. Scenarios:

- Small working groups are provided with a number of scenarios in which a degree of risk is involved (e.g. work-related risks, everyday risks, risks taken at school or with friends etc.).
- Students discuss the risk(s) involved in the scenario, the consequences of taking the risk and, if applicable, make changes to the scenario to lessen the risk.
- (Optional) Groups create scenarios in which risks are involved and challenge other groups to make the safest decisions.

3. Writing assignment: Individually, students write their thoughts on the following statement:

Every day we take risks, some more serious than others.

Assessment

Writing assignment & group participation.

Extension

Rating your risk: Students reflect upon their personal choices and behaviour. Using a rating scale (1 being low risk and 5 extremely high risk), students describe activities or choices they have made in the past and rate their level of risk.

High risk jobs: Discuss the types of risks that are involved in the workplace. Are some jobs riskier than others? Students rate high risk jobs versus low risk jobs and explain reasons for their beliefs. Why do people choose to do high risk jobs (e.g. fire fighter, pilot, rescuer)?

Risk Takers

- The driver of the car has drunk three beers. You desperately need a drive home with him/her.
- You are not 100% sure how to work the machine properly but want to get the job done.
- You are not sure what type of chemicals you are using but need to get the science assignment done as soon as possible.
- You forgot your bike helmet but need to go to the store.
- You didn't bring your hard hat, work boots or protective clothing to work. You don't have time to get them and need to start work as soon as possible.
- You are swimming in the lake alone.
- Your friend offers you a cigarette.
- You sneak out of school to go diving off cliffs and swimming with friends.
- You need to change your car tire along a busy highway.
- You have lied to your parents about where you are staying.
- You need to lift a very heavy box and there is no one to help.
- You are baby-sitting. The baby is sleeping. You need to run to the store across the street and leave the baby alone for only five minutes.
- You are betting lots of money that your team will win the game.

What am I Breathing?

Purpose

Become familiar with the effects of air quality on health, safety and well-being.

Key Concepts

- Poor indoor air quality can result in eye irritation, nausea, dizziness, fatigue, severe headaches, upper respiratory problems, and can effect overall work performance and the well-being of the people within the building. Good indoor air quality is at a comfortable temperature with humidity controlled and sufficient air circulation; air is free from high levels of odours, dust or other contaminants.
- Many factors can affect indoor air quality. For example, perfumes, smoking, new furniture or carpet giving off gases, the ventilation/heating/cooling system, number of people present (exhaling carbon dioxide), type of work/human activity in the work space, office equipment, building construction materials and cleaning materials.

Required Materials & Equipment

Film on pollution/air quality (optional), sample of respiratory PPE (optional), art materials (optional), research materials

Plan of Action

1. Real experiences:

- Optional - show a film related to air quality and/or pollution.
- Open the discussion by asking the class what types of things might affect our air quality/what we breathe. How might such pollution and air-borne allergens affect a person's health and well-being? Review the types of things that can affect our air quality.
- Discuss cases where a person's health may suffer from poor air quality. If possible, invite a person (student or staff) to share their experiences related to poor air quality (e.g. certain scents affecting their well-being and health, asthma).
- Discuss the rationale for and definition of a scent-free environment. Students conduct a survey asking other students and staff if and how they are affected by smells and poor air quality. Students also ask how such scents affect the respondents' health and well-being. Discuss all results of the survey as a class.
- Using computers/Internet and/or library search, pairs of students research other pollutants that can exist in our air, their causes, effects and means of reducing their effects (e.g. car exhaust, factory emissions).
- Respiratory personal protective equipment (PPE): Review respiratory PPE that exist in the workplace, their role, importance of their use and workplaces that use them. If possible, bring in an example of respiratory PPE.
- Brainstorm the types of things we should be cautious breathing and using in and around the home (e.g. using paint, cleaning solutions, sprays, burning plastic).

Assessment

Participation in discussions, poster creation, research project).

CHAPTER THREE

Personal Protective Equipment

Designing 'COOL' PPE

Purpose

Review the role, use and importance of personal protective equipment.

Key Concepts

- Definition of personal protective equipment (PPE): Equipment worn to minimise exposure to hazards by acting as a barrier to shield a person from the hazard.
- Examples of PPE include: respirator, gloves, apron, fall protection, hard hat, eye wear, ear and foot protection.

Required Materials & Equipment

Large pieces of paper, tangible examples of PPE (optional), markers

Plan of Action

1. Introduction: Discuss the use and role of PPE. Ask students to list examples of PPE in the workplace and recreational activities. Pass around tangible examples of PPE (optional).

2. Students Create: In small groups, students are responsible for creating personal protective equipment (PPE) for their age group. Encourage students to create PPE that is attractive, flattering and stylish so as to be more suited to the needs and taste of young people (i.e. enjoy using and wearing PPE). Encourage students to use their *imagination!*

- Students may wish to invent new PPE or redesign existing PPE.
- Groups may decide to create the PPE together, **or** each group member creates their own, **or** half the group may design PPE for females and the other half for males (i.e. use of different colours and styles).
- Students use the materials provided to create and display the PPE.

3. Presentation: Each group presents their PPE to the class. This can be done in the form of a fashion show or as an advertisement attempting to sell their PPE products to the rest of the group.

4. Homework assignment: Individually, students create the following chart and fill in the blanks.

Name of PPE	Describe the PPE	PPE's role in accident prevention	Examples of where and when the PPE should be worn
e.g. hard hat	made of hard plastic, fits on top of head	protects the head from over hanging or falling objects	construction sites, factories, sawmills

Assessment

Presentation and content of art work; completed homework assignment.

Extension

Research project: Students choose an occupation of their choice and research the PPE used to protect the workers within this occupation (e.g. police officer, fire fighters, doctors, nurses, construction workers etc.).

Guest speaker: Invite a worker to demonstrate and discuss the use of PPE in their occupation.

Activity sheet: Make a list of various activities that we take part in every day. Beside each activity, students fill in the PPE and/or appropriate safety measures required to perform the activity safely.

Designing 'COOL' PPE

Materials: large pieces of paper, paints & brushes and/or markers

Plan of Action

A big company is offering to pay your group \$\$ for designing attractive, comfortable and stylish **personal protective equipment (PPE)**.

A) Take five minutes as a group to brainstorm all the different types of PPE that exist.

B) Use your *imagination* and the materials provided to design and create *cool* PPE for people your age.

◆ You may wish to invent new PPE OR redesign existing PPE.

◆ In creating your PPE, keep the following in mind:

1 - What is the purpose of the PPE?

2 - How can we encourage people to wear PPE?

Safe & Sound Activity Sheet

*** List the appropriate PPE for each of the activities**

Activities	Personal Protective Equipment Needed
1. riding your bike	
2. driving in a car	
3. taking a boat ride	
4. playing football	
5. cutting wood	
6. cooking	
7. sitting outside in summer	
8. riding a motorcycle	

Safe & Sound Activity Sheet - Suggested Answers

*** List the appropriate PPE for each of the activities**

Activities	Personal Protective Equipment Needed
1. riding your bike	helmet, sun glasses (if needed)
2. driving in a car	seat belt, sun glasses (if needed)
3. taking a boat ride	PFD, sun screen (if needed)
4. playing football	helmet, body pads, proper footwear
5. cutting wood	safety glasses, steel toe boots, protective pants, gloves, hard hat
6. cooking	apron, oven mitts (if needed)
7. sitting outside in summer	hat, sun screen, sun glasses
8. riding a motorcycle	helmet, protective clothing (pants)

Dressing for Safety

Purpose

Review the importance of personal protective equipment (PPE) and determine the correct PPE for various jobs and activities.

Key Concepts

- Definition of PPE: equipment worn to minimize exposure to hazards by acting as a barrier.
- There are many different types of PPE. For the PPE to effectively reduce the risk of hazards you must know:
 - * when to wear the PPE;
 - * the proper PPE for the job/activity;
 - * how to wear and adjust the PPE;
 - * the limitations of the PPE;
 - * the proper care, maintenance and life span of the PPE.

Required Materials & Equipment

Scrap paper, resource materials on PPE

Plan of Action

1. **Preparation:** The teacher prepares a number of examples of various jobs and activities on individual pieces of paper, which are then placed in a hat or jar. The examples of types of jobs should be on a different coloured paper than the examples of types of activities.

2. **Introduction:**

- Review the use and importance of personal protective equipment.
- Have a contest to see which group of students can list the most examples of PPE.

3. **Individual assignment:** Each student pulls from the hat one example of an activity and one example of a job. Students must do the following for each:

- a) list the potential hazards with the job and activity;
- b) name the PPE needed for the job and activity;
- c) state when the PPE should be worn;
- d) describe how to wear and adjust the PPE;
- e) describe the limitations of the PPE;
- f) explain the proper care, maintenance of the PPE;
- g) explain if and when the PPE should be replaced.

Along with the written report, students include a diagram or model of the PPE for their chosen activity and job.

Assessment

Written report and models of PPE passed in for evaluation.

Extension

Refer to other PPE activities: Designing COOL PPE; Matching Exercise; Futuristic Workplace & PPE; Protection from Head to Toe; When, What & Why PPE.

PPE fall arrest: Invite an experienced construction worker, or a person who has been injured in a fall to discuss and demonstrate the importance, use and role of fall arrest protection (e.g. harness, ropes, tying knots properly, receiving proper training).

Dressing for Safety

1. Example of write up for PPE for an activity: **biking**.

a) Hazards involved with the activity:

- cars, other bikers, road conditions, water, rocks, animals, sharp turns, pedestrians, malfunction of parts (e.g. brakes), flat tire.

b) Name the PPE needed for the activity:

- bike helmet;
- other bike safety - drive on the correct side of the road; avoid riding bike when raining; keep bike in good repair; pay attention; slow down on unfamiliar roads.

c) When the PPE should be worn:

- always, regardless of the length of the ride.

d) Describe how to wear and adjust the PPE:

- helmet should be snug on the head; does not sit too far back or too far forward; should sit square level on the head, covering forehead to just above the eyebrow line; adjust foam pads inside for better fit; helmet should not move if you shake your head; strap fastened under chin, fitting two fingers in between the strap and the area under the chin; straps should fit in front and behind the ear.

e) Limitations of the PPE:

- existence of many other hazards that can affect bikers (i.e. PPE will not prevent you from driving recklessly, or protect you fully if you are struck by a car).

f) Proper care, maintenance of the PPE:

- keep helmet in dry area free from items that can crush or damage it; do not remove chin straps; check expiration date.

g) If and when the PPE should be replaced:

- replace helmet if damaged or once is too small to sit on head properly.

2. Example of write up for PPE for a job: **chemist**.

a) Hazards involved with the job:

- Hazardous products, fumes and chemical reactions.

b) Name the PPE needed for the job:

- Lab coat, safety goggles, proper footwear, hand protection (safety gloves).

c) When the PPE should be worn:

- While in the lab, when performing chemical reactions or mixing solutions, or simply when handling solutions.

d) Describe how to wear and adjust the PPE:

- Lab coat: not too long or too short, free from tears, covers body adequately, light in colour to detect any spillage;
- Safety goggles: fit properly, free from cracks or damage, straps are adjustable to fit snug around head;
- Hand protection: thick and strong enough for the job (i.e. solutions won't burn through), fit properly so won't slide off;
- Proper footwear: cover and protect feet from spills, easy to wear (avoid slips or falls).

e) Limitations of the PPE:

- Will not protect you in case of large explosion or fire, (use Safety Data Sheets to help familiarize with all details of WHMIS hazardous products).

f) Proper care, maintenance of the PPE:

- Keep in dry place and free from heat.

g) If and when the PPE should be replaced:

- Replace immediately if there are cracks, tears or any type of damage.

Futuristic Workplaces & PPE

Purpose

Develop an understanding of the importance of personal protective equipment (PPE) in the ever-changing workplace.

Key Concepts

- Personal protective equipment (PPE) is equipment worn to minimize exposure to hazards. PPE does not eliminate the hazard but acts as a barrier to protect an individual from the hazard and reduces the risk of injury.
- Proper safety clothing for work should be considered from head to toe. One should always ask, "Am I dressed to work safely?" For example, a person working with machines should not wear a neck tie if there is a possibility it could get caught in a machine.
- Check to ensure that PPE meets national standards (e.g. work boots, hard hat etc.).

Required Materials & Equipment

Available art supplies (e.g. construction paper, glue, scissors, markers, paints, paper mache, clay)

Plan of Action

1. Teacher oriented:

- Discuss how jobs have changed over the years. Invite students to share their thoughts on the evolution of the workplace.
- Review the role of personal protective equipment (PPE) in the workplace. How has PPE evolved over the years? Has it improved? Will we need to improve PPE and safety standards in the ever-changing workplace?

2. Create: Students are to imagine that 50 years have passed and invent a new workplace of the future. Their description of their fictitious workplace of the future should include:

- the job responsibilities and duties;
- the working environment (setting, description etc.);
- the hazards in the workplace and health and safety concerns;
- the PPE required in the workplace (description, use and function in protecting the workers).

* There are no incorrect answers - encourage students to use their imaginations.

3. Art work: Students create an image of their futuristic workplace. Paper mache or clay can be used to create 3D models of the PPE required within the workplace. **OR** students create a design of the workplace using construction paper and protruding 3D images.

Assessment

Content and effort of write up of futuristic workplace and created art work.

Extension

Marketing: Students create an ad campaign for their futuristic PPE. The ad campaign should include a description of the product, its protective role, use and a visual model or design.

Protection from Head to Toe

Purpose

Review various types of personal protective equipment (PPE), their role in personal safety and the importance of maintaining them correctly.

Key Concepts

It is important to maintain PPE (repair damages, replace after expiration date or if damaged etc.).

Required Materials & Equipment

N/A

Plan of Action

1. **Discussion:** Lead a discussion on the various types of PPE that are used in the workplace, at home and during leisure activities. Question students on the role of the equipment and why its use is important.

2. **Group work:** Students discuss hazards they encounter in their daily activities. Choosing one hazard, groups invent an item that would reduce the risk of an accident by eliminating the hazard.

- Students market their invented item (i.e. create promotional materials to advertise the item, its purpose etc.).

3. Students choose a type of PPE and then develop a checklist to be used to inspect the conditions of the PPE.

Assessment

Participation in group discussion and invention of product; created checklist.

Extension

Tour a workplace: Tour a facility in your community where employees wear PPE **OR** watch video footage of a workplace. Students identify all types of PPE used and their role in protecting the workers.

When, What & Why: PPE

Purpose

Develop an understanding of the purpose of personal protective equipment (PPE), the various types that exist and when the PPE should be used.

Key Concepts

- Definition of personal protective equipment (PPE): Equipment worn to minimise exposure to hazards by acting as a barrier to shield a person from the hazard.
- There are many different types of PPE, some specific to the workplace, others to leisure activities, but all share a common purpose: to protect various parts of the body.

Required Materials & Equipment

Tape & sample PPE markers, large pieces of paper, samples of PPE (all optional)

Plan of Action

1. **List all PPE:** Students list all the examples of PPE that they use at home, at work, during leisure time etc. Students divide a piece of paper into three columns and list all their examples of PPE in one column.

2. **Rationale of PPE:** In the second column, students state reasons for using the PPE, why they are important and necessary to the health and safety of an individual. In the third column, students state where and/or when the PPE is used.

3. **PPE Fashion show:** Students organise a PPE fashion show for other classes to watch. The fashion show should include a variety of PPE used for various activities and workplaces. As one student models the PPE, another reads aloud a description of the PPE, and why its use is important.

Assessment

Completion & content of chart; participation in fashion show.

Extension

Writing assignment: Acting as a columnist for a newspaper, students write a review of the PPE fashion show. **OR** students take on the role of a PPE and write a promotional add for their use (e.g. I am a hard hat and this is when and why I should be used).

CHAPTER FOUR

Rights & Responsibilities

Applying the WHS Regulations

Purpose

Discover the role of the Work Health and Safety (WHS) Regulations in protecting the health and safety of the worker.

Key Concepts

- WHS Regulations are established laws for the workplace, in place to protect the health and safety of the workers of Western Australia
- Definition of infraction: a breaking of a law or obligation; violation. For example, reckless driving is an infraction of the law.

Required Materials & Equipment

Copy of the WHS Regulations

Plan of Action

1. **Scenario:** Ask the class what they would do if they arrived at a new job and there wasn't enough light for them to see properly and do the job safely. Explain to the class that under the WHS Regulations an employer needs to provide lighting sufficient for the type of work being done.

- Discuss how the WHS Regulations are existing laws that protect the health and safety of workers and must be followed by all workplaces. Proper illumination is just one example of the various standards that have been set to ensure the safety and protect the well-being of the worker.

2. **Group work:** Each group of students is provided with a scenario and section of the WHS Regulations that relates to their scenario.

- Students are responsible for reading over the scenario and using the WHS Regulations to respond to the following:
 - A) What are the safety concerns depicted in your scenario?
 - B) In your own words, write a summary of the section of the WHS Regulations that pertains to your scenario.
 - C) Describe examples of injuries or incidents that could result from an infraction of this law (e.g. because there was improper air quality, the worker was severely ill).

3. **Presentation:** Groups present their work to the class.

Assessment

Pass in response to assignment; participation in presentation.

Extension

Guest speaker: Invite Safety Officer from WorkSafe to discuss their use of the WHS Regulations in performing workplace inspections.

General Regulations Under the Work Health and Safety Act

1. As a group, read over each of the scenarios and answer the following:

A) What do you think are some safety concerns for each of the scenarios?

B) Using the Regulations provided, briefly describe the relationship between the Regulations and each of the scenarios.

C) Describe a few examples of injuries that could result from not following this law (e.g. because of the poor air quality, the worker became severely ill).

2. **Sharing of information:** Be prepared to share your work with the rest of the group.

Applying the WHS Regulations

Sample Scenarios

- You are working for a road construction company this summer. One of your concerns is working so close to heavy traffic on the highway.
- There is so much loud noise in your workplace. You are concerned with hearing loss.
- You have started a new job with a logging company. What type of personal protective equipment will you require?
- You are working with different types of machinery in a factory. What is the proper way to stop and start the machines?
- You arrive on your first day of work. The boss informs you that there are no washroom facilities or clean drinking water on site.
- You need a bandage for a cut on your finger. Your co-worker informs you that there is no first aid kit on site.
- Your workplace is extremely hot regardless of the time of year. You always feel light headed and have a hard time getting work done because of the heat.
- You are working on the construction of a bridge. The other day a co-worker fell off the bridge and almost drowned.
- You are working on a roof at a construction site. What types of things should you be aware of?
- Your boss has asked you to clean out a number of tanks on transport trucks. The space in the tank seems very small and you are concerned for your safety.

Debating our Rights

Purpose

Develop a greater understanding, through debate, that both the employer and employee have rights and responsibilities.

Key Concepts

- Debate: a formal debate is a contest between two sides to see which one has more skill in speaking and reasoning; a discussion of reasons for and against.
- Students have a basic understanding of the rights and responsibilities of the employee and employer.

Required Materials & Equipment

N/A

Plan of Action

1. Introduction:

- Request student input on the purpose of debates as well as rules that should be followed by opposing sides during a debate.

2. Working groups:

- Divide the class into working groups of eight. Each group will then be sub-divided into two smaller groups of four.
- Provide each group with a statement of debate. One sub-group will prepare arguments supporting the statement; the other sub-group will prepare arguments opposing the statement.
- Groups separate and prepare arguments.

3. Debate:

- Each group is given uninterrupted time to present arguments supporting their position.
- Each group will be allowed a rebuttal period followed by questions from the audience (the class).

4. Class discussion:

- Review the rights and responsibilities of the employer and employee.
- Request students' feedback on the success, frustrations and the overall impression of the debates that took place.
- Brainstorm as to where debates might occur/arise (e.g. court, parliament, the workplace etc.).

Assessment

Debate: group performance and effort; content and presentation of arguments.

(Option - involve students in peer-assessment by requesting them to provide feedback on the arguments and work of their peers).

Extension

Guest speaker: Invite a representative from industry to discuss:

- a) new employee orientation;
- b) the rights of the employee & employer;
- c) the need to work together to achieve a safe work environment.

Suggested Statements of Debate

Group #1A argues:

As an employer, I have the right to have the necessary work completed by my employees.

Group #1B argues (Right to refuse):

As an employee, I have a right to refuse work I feel places me or other workers at risk of being injured.

Group #2A argues:

As an employer, I have the right to request that my employees keep themselves informed on using equipment properly.

Group #2B argues (Right to know):

As an employee, I have the right to receive the proper training needed to do my job safely.

Group #3A argues:

As an employer, I am in charge of my staff and therefore will decide what constitutes a safe working environment.

Group #3B argues (Right to participate):

As an employee, I have the right to express concerns related to health and safety in the workplace.

Group #4A argues:

All accidents are preventable.

Group #4B argues:

It is impossible to prevent all accidents. Some accidents occur due to fate or are a 'freak' occurrence over which we have no control.

The three rights of a worker:

1. The right to know about workplace hazards and to receive training on how to do the job safely.
2. The right to participate in solving health and safety problems.
3. The right to refuse dangerous work.

As an employee, you have a legislated responsibility to:

- follow the safety rules and regulations (in accordance with the Work Health and Safety Act);
- ask for the training you need;
- report all injuries and unsafe working conditions/hazards;
- wear the proper protective equipment;
- co-operate with WorkSafe and your safety representative;
- do the job safely.

As an employer, you have a legislated responsibility to:

- take reasonable precautions;
- comply with the WHS Act and ensure that employees comply with the Act;
- maintain equipment;
- advise workers of hazards;
- provide training and supervision;
- provide personal protective equipment;
- co-operate with WorkSafe.

Materials N/A

Plan of Action

1. Your group will divide into two smaller groups.
 2. Each group will represent one side of the debate.
- Topics of debate -

Group #1: 'All accidents are preventable.'

Group #2: 'It is impossible to prevent all accidents. Accidents occur due to fate or are freak occurrences.'

3. Each group will work separately. Group members will work together to prepare arguments supporting their statement.

* Regardless of whether you or your group members believe in the statement or not, it is your goal to support the statement with any arguments your group can bring together. Remember - *it's for fun!*

4. The debate will take place in front of the class. Your group may wish to nominate one or two people to represent the group **OR** the entire group may participate in the presentation of arguments.

* Each group will have a maximum of three minutes of uninterrupted time to present their arguments. Once each group has presented, there will be a three minute rebuttal period during which each group can speak freely.

Knowing our Rights - Mock Trial

Purpose

Recognize and apply the rights and responsibilities of the employer and the employee.

Key Concepts

- **Pre-requisite:** Students should have some knowledge of the rights and responsibilities of the employer and the employee.
- **Definition of the defence:** the arguments presented by a defendant or the lawyer in contesting a case.
- **Definition of prosecution:** the side that institutes criminal proceedings against another; the prosecution makes charges against the defence.

Required Materials & Equipment

Photocopies of outline for procedures for defence & prosecution

Plan of Action

1. **Review:** Briefly discuss the purpose of the court system: how and why the courts are used and the role of the prosecution and defence. Review the rights and responsibilities of the employee and employer.

2. Working groups:

- Divide the class into groups of eight; sub-divide each group into two smaller groups, one representing the defence, the other the prosecution.
- The entire group of eight reviews the case between the defence and prosecution, and then fabricates an accident and a workplace in which the incident took place. The teacher may wish to assign each group a description of an accident and the workplace involved to speed up the process.
- **Option:** Groups perform a dramatization of the accident scene. A mock investigation of the events of the accident follows.
- The group then sub-divides, into the prosecution and the defence, and each side of the case prepare their statements. Each group member should represent a different character/witness involved in the case and prepare a dialogue for their character at the trial.

3. Presentation:

- Set up two areas in the front of the class, one for the defence and the other the prosecution.
- Each group takes a turn presenting their case to the class. First, the group dramatizes the events of the accident; then both sides, the defence and the prosecution, present their arguments.
- Each group has approximately 10 minutes to act out the trial in front of the rest of the class. You may decide to leave the verdict of the trial in the hands of the audience (or choose a judge).

Assessment

Teacher and peer assessments of individual trials; participation in group activity.

Extension

Media review: Students review the newspaper and/or news reports for actual cases involving disputes between an employer and an employee. Discuss the nature of the case, the arguments and the verdict.

Knowing our Rights - Mock Trial **Involvement of the Defence and Prosecution**

*** Each group of eight students chooses a workplace accident (to focus on) throughout the mock trial (see below for examples). The group sub-divides: four students prepare arguments representing the prosecution and four students represent the defence.**

The Prosecution: The government of Western Australia is charging a company for failing to provide a safe work environment. A young worker has been involved in a work-related accident. He/she claims that his/her three rights as an employee have been violated, resulting in an accident. As the defence, choose your witnesses and work on their testimony for the trial.

The Defence: You represent the company being charged for failing to provide a safe work environment. As the company, you claim the accident was the result of the employee's carelessness, inexperience and lack of knowledge. Choose your witnesses to support your arguments and prepare their dialogue.

Examples of accidents & workplaces brought to trial

- | | | | |
|----|---|----|---|
| 1. | who: new/young worker
what: lost fingers
where: construction site | 2. | who: new/young worker
what: damage to eye
where: paper mill |
| 3. | who: new/young worker
what: bad back
where: restaurant | 4. | who: new/young worker
what: broken leg
where: mall clothing store |

Mock Trial

Plan of Action:

1. Your group will divide into two smaller groups: one group represents the defence, the other the prosecution. The two groups will separate and group members will choose a witness to portray and prepare their statements.

The Prosecution: The government of Western Australia is charging a company for failing to provide a safe work environment. A young man (named Joe) lost an arm in an accident while operating a company machine. Joe claims, among other things, that he did not receive proper training (he was only provided with the operator's manual). As the prosecution, choose your witnesses and work on their testimony for the trial.

The Defence: You represent the company being charged for failing to provide a safe work environment. Last summer a young man, named Joe, lost his arm on the job while using a company machine. You claim that ample training was provided and the accident was the result of Joe's carelessness. Choose your witnesses to support your arguments and prepare their dialogue.

2. Your group will have approximately 10 minutes to act out the trial in front of the rest of the class. You may decide to leave the verdict of the trial in the hands of your audience.

Legal Duties: Employee & Employer

Purpose

Differentiate between the rights and responsibilities of the employee and the employer.

Key Concepts

By law, all employees and employers have rights and responsibilities on the job.

Required Materials & Equipment

Examples of case studies involving legal action taken in the workplace (case studies can be collected from newspapers, magazines, newsletters, web sites etc.)

Plan of Action

1. **Content review:** Discuss the role of the employer and employee in the workplace including their rights and varying responsibilities.
2. **Article review:** Students will review case studies related to legal actions taken in the workplace involving the employee(s) and/or employer(s). Discuss how these actions came to be, while reviewing the responsibilities of both the employer and employee.
3. **Project:**
 - Students will create a fictitious scenario involving an employee their age and his/her employer. The two are involved in a legal issue/disagreement related to safety (e.g. an employee who is concerned that his/her safety is at risk).
 - Students will write an informative newspaper article describing the legal action taken by the employer. It is important that the article include the responsibilities of both the employee and the employer and a description of how the employee feels the employer did not meet these responsibilities.
 - Students are given the option to write the article from the point of view of the employer, or the employee, or to remain neutral.

Assessment

Students share their article with the rest of the class; pass-in write-up for evaluation.

Extension

Mock trial: Using their created scenarios, students take part in mock trials displaying both sides, the employee and the employer, and the conflict at hand.

The three rights of an employee:

1. The right to know about workplace hazards and to receive training on how to do the job safely.
 2. The right to participate in solving health and safety problems.
 3. The right to refuse dangerous work.
- An employee may not be punished for exercising rights under the Work Health and Safety (WHS) Act.

As an employee, you have a legislated responsibility to:

- follow the safety rules and regulations (comply with the Work Health and Safety Act)
- ask for the training you need
- report all injuries and unsafe working conditions/hazards
- wear the proper protective equipment
- co-operate with the WorkSafe and a safety representative
- do the job safely

As an employer, you have a legislated responsibility to:

- take reasonable precautions
- comply with the WHS Act and ensure that employees comply with the Act
- maintain equipment
- advise workers of hazards
- provide training and supervision
- provide personal protective equipment
- co-operate with the safety representative

My Right to Know

Purpose

Apply the right to know by exploring important facts about a workplace before starting a new job.

Key Concepts

- As an employee, you have a right to know what hazards exist in your workplace and the means of working safely.
- As your right to know, you should receive 'new employee.
- Definition of training: practical education in some art, profession.

Required Materials & Equipment

N/A

Plan of Action

1. **Teacher-oriented:** Review the three rights of a worker. Discuss the definition of training. Ask students what type of training they would expect at a new job.

2. **Group work:**

- Each pair of students is assigned or chooses a workplace on which to focus (may be of personal interest).
- Students list all the questions, related to their health and safety on the job that they should be aware of before starting at this workplace.

3. **Groups present:** The groups role play their list of questions in front of the class by having one student play the employee asking the questions and the other student play the employer answering the questions. Encourage the audience to provide other suggestions when appropriate.

4. **Writing assignment:** A student from abroad has arrived at our school. They are unfamiliar with the Australian school system. It is your role to provide them knowledge of their right to know as a student in the school. What types of things will you include in their "new student orientation" to ensure they will be safe and comfortable within the school? (For example; fire drills, location of washrooms, rules of conduct, lunch time, extra-curricular activities etc.).

Assessment

Evaluate a list of questions created by students for their particular workplace, presentations of role play and writing assignments.

Extension

Interview: Students conduct an interview with someone within their chosen/assigned workplace. The interview will help determine the appropriateness of their questions. Students adjust their original list of questions to include any new knowledge gained from the interview.

Sample Questions

What Should I Know About this Workplace?

- What type of training will I receive? Safety training?
- Will I be trained for emergency procedures (e.g. fire, chemical etc.)?
- What type of emergency procedures does this workplace have in place?
- Where are the fire extinguishers, first aid kits, and other emergency equipment located?
- What type of personal protective equipment (PPE) will I need? Will you supply the PPE or will I need to provide it?
- Can you tell me about the duties and responsibilities of my job?
- With whom do I speak if I have a health and safety concern (e.g. is there an appointed safety representative?)?
- What company health and safety rules or policy should I know about to do my job safely?
- What are the hazards associated with the job? In the workplace?
- What should I do if I am injured?

Proclaiming your Rights: Roles of the Employer & Employee

Purpose

Through dramatic play, demonstrate the roles and responsibilities of the employer and the employee within the workplace.

Key Concepts

- **The three rights of an employee:**

1. the right to know about workplace hazards and to receive training on how to do the job safely;
2. the right to participate in solving health and safety problems, and in the identification and control of workplace hazards;
3. the right to refuse dangerous work.

Required Materials & Equipment

Overhead transparency on rights & responsibilities, overhead projector & chart paper

Plan of Action

1. **Memory game:**

- Using chart or regular paper, students create the chart found on the following page.
- Place the overhead transparencies on overhead projector. Give students 10 seconds to review the content, and then remove transparency.
- Students fill in the chart with content they remember from the overhead.
- Place the overhead up one more time and repeat the process.

2. **Class discussion:** Determine the winners of the memory game. Review the content.

<i>The three rights of an employee:</i>	
<i>1.</i>	
<i>2.</i>	
<i>3.</i>	
<i>Responsibilities of employer</i>	<i>Responsibilities of employee</i>

3. **Role play:** Students create a short speech proclaiming their rights as an employee working at a company of their choice. Encourage students to use emotions and tone of voice.

- The speeches should include a review of the three rights of a worker, roles and responsibilities of the employee and employer within the chosen workplace.
- Students may also choose to create a role play involving a conversation between the employee and employer incorporating the rights, roles and responsibilities of each within the workplace.

Assessment

Content of chart and involvement with speeches and skits.

Extension

Writing assignment: Students create two lists:

- a) Expectations the employer has for the employee;
- b) Expectations the employee has for the employer.

Students then share and compare their list with others.

Roles of the Employer & Employee

The employee has a legislated responsibility to:

1. comply with the Work Health and Safety Act (WHS Act);
2. conduct him or herself in a safe manner;
3. report hazards;
4. wear protective equipment;
5. co-operate with the workplace safety representative;
6. co-operate with the WorkSafe and its safety officers.

The employer has a legislated responsibility to:

1. take reasonable precautions;
2. comply with the WHS Act;
3. ensure employees comply with the WHS Act;
4. maintain equipment;
5. advise workers of hazards;
6. provide training and supervision;
7. provide personal protective equipment;
8. co-operate with the workplace safety representative and WorkSafe

Refusing Dangerous Work (or Play)

Purpose

- 1) Differentiate between safe and unsafe work and/or play
- 2) Practice the steps to refusing dangerous work and/or activity.

Key Concepts

All workers have a right to refuse work they believe is dangerous to their health or safety, or to the health and safety of other workers.

If a worker is unsure about their safety at work, they should follow the steps below:

Step 1: Report the safety concern to the supervisor. If the problem is resolved, return to work. If not, then...

Step 2: Report the matter to the safety representative. If still not resolved, then...

Step 3: Call WorkSafe and explain the situation. Return to work only when you feel the situation is no longer dangerous.

* In all cases, stay on the job until your shift is finished.

Required Materials & Equipment

N/A

Plan of Action

1. Teacher oriented:

- Discuss examples of instances where a worker may take part in duties on the job that could be considered unsafe to their health and safety or to the health and safety of other workers. For example, a worker not wearing the proper personal protective equipment.
- Students reflect on instances they have heard of or have been involved where a worker's safety was possibly at risk.
- Review the steps to refusing dangerous work.

2. Assign: In pairs, students answer the following:

(A) Describe examples of unsafe work, activities and/or decisions.

(B) What are the health and safety related concerns for these examples of unsafe work, activities or decisions?

(C) How would you handle dealing with such unsafe work, activities and/or decisions (i.e. how to make the safest decisions and follow them through)?

- Examples should be related to unsafe working conditions or duties that an employee may encounter and/or unsafe activities he/she may encounter with friends/peers (e.g. drinking and drug-related).

3. **Role play:** In front of the class, the pair of students play opposing roles (employee and employer or peer pressure situation). The students act out one of the unsafe events, decision or activity from their created list (#2) and demonstrate the steps the person should take in refusing the task (be it work refusal, or refusal to submit to peer pressure).

4. Review:

- Review the issues presented within the role play scenarios.
- Summarize work or activity refusal skills. Reinforce the fact that the choice is always in their hands and one unsafe decision could affect them for the rest of their lives.

Assessment

Participation and completed chart of examples; peer, self and teacher evaluation of role play scenarios.

Extension

Reflection: Individually, students reflect on difficulties and emotions that can arise when you stand up for your personal health and safety (i.e. refusing peer pressure, standing up to your boss/supervisor about unsafe work). Students write about the challenges involved in making such decisions; how they would deal with the person's reaction (be it your boss or friend); and the rewards of making such decisions.

Rights & Duties: The Right to Know

Purpose

Promote an understanding that the right to know includes:

- 1) knowledge of workplace hazards;
- 2) proper training on how to do the job safely.

Key Concepts

- **Right to know:** As an employee, you have the right to know what hazards exist in your workplace and how to perform your job safely.
- The right to know includes orientation for new employees, receiving proper training for the job, information and adequate supervision.

Required Materials & Equipment

Resources related to jobs/careers, markers, paper.

Plan of Action

1. **Introduction:** Discuss with students what they have a right to know within the school environment (e.g. fire evacuation, location of bathrooms, when to arrive and when to leave school etc.). Just as in school, we have a right to know how to work safely in the workplace.

2. Group work:

- Attempting to group students according to job/career interest, divide class into groups of four students.
- Using available resources (e.g. computer, library), each group will research a specific occupation with respect to:
 - ⇒ possible existing dangers and hazards in the workplace;
 - ⇒ what they need to know as a new employee in this workplace as far as health and safety is concerned;
 - ⇒ who is responsible for sharing the health and safety knowledge to them;
 - ⇒ what the reasonable job expectations for employees are in this workplace.

4. **Group presentations:** Using the information researched on the right to know, each group will play a scene from their workplace portraying the employer and employee. The groups will create a written report using any visual materials created from their presentation.

5. **Follow-up:** As a class, discuss what to do if a workplace is not meeting your needs in relation to your right to know (e.g. talk to supervisor, request training, ask for help etc.).

Assessment

Group presentations/role play, visual materials created by group, written report.

Extension

Guest speaker: Invite an employee or employer from a local workplace or WorkSafe staff to share with class:

1. employees right to know;
2. legal ramifications of not meeting the requirements of right to know in the workplace.

Rights & Duties: The Right to Participate

Purpose

Create an understanding that the employee has a right to participate in:

1. workplace health and safety planning;
2. monitoring and improving workplace health and safety issues.

Key Concepts

Right to participate: an employee has the right to participate in the identification and control of workplace hazards.

Required Materials & Equipment

N/A

Plan of Action

1. **Review:** Students should be familiar with the three rights of an employee.

Prep work: The teacher divides school into different sections (e.g. hallways, upstairs, downstairs, gym, cafeteria etc.). Inform administration that class members will be circulating around the school.

2. **Group work:**

- Divide class into working groups of four students.
- Assign each group a different section of the school. Each group evaluates their section on the possible health and safety issues and concerns, taking note of any possible safety violations observed.

3. **Presentations:** Students create a visual diagram of their observed areas of the school, identifying the location of potential hazards. Using the diagram, each group reports their findings and observations to the class.

4. **Class discussion:** Brainstorm where and how improvements can be made to create a safer school environment. Discuss the importance of getting involved in health and safety promotion and prevention, be it the workplace, school, home or community.

- Review the activity and its relationship with right to know, comparing the school to home and the workplace.

Assessment

Group and individual contribution to the investigation, report and diagram.

Extension

Guest speaker: Invite a member from the school administration to observe the class presentations on the health and safety concerns within the school environment.

Rights & Duties: The Right to Participate

*** The following is a partial list of what to look for in any workplace in terms of health and safety:**

- equipment stored neatly when not in use;
- carpet and flooring clean and in good repair;
- no sign of leaks or water on walking surfaces;
- no sign of tripping hazards (e.g. cords);
- equipment is in good repair (no loose or protruding parts);
- all ceiling lights functioning, protected and intact;
- all entrances and exits free from debris and hazards;
- fire exits well marked;
- telephone working and accessible with emergency numbers listed;
- first aid kit supplied with proper contents;
- emergency procedures posted;
- all safety rails on stairways secure;
- non-slip matting in place (i.e. at doorways);
- sinks, fountains, bathrooms are sanitary;
- cleaning materials stored properly;
- attention to environmental conditions

Investigating Your School

Materials: paper, pencils, flip chart paper, and markers

Plan of Action

1. **Investigate:** Read over all directions before you start.

- Your group has been hired to inspect your school for possible dangers. As a group, circulate around the main floor of the school to inspect for hazards that could potentially cause an accident. Your investigation of the school should take no more than 15 minutes.
- **During your investigation you will need:**
 - 1 - paper & pencil
 - 2 - something to write on
 - 3 - Suggestions for investigating your school for hazards - found on the next page

2. **Recommendations:**

- After you have completed the investigation, use the flip chart paper and markers to list all the hazards you discovered around the school. **List the hazards in order of importance** - for example, hazard #1 is more serious than hazard #5.

Suggestions for Investigating your School for Hazards

The following are examples of things to look for during the investigation of the school. The possibilities are endless - keep your eyes open for anything that could cause an accident.

- ◆ Air quality - control of dust, gases, temperature, humidity, proper ventilation.
- ◆ Building & structure - condition of windows, doors, floors, exits, aisles, ramps, guard-rails, garbage removal & storage, roof, walls.
- ◆ Fire prevention - smoke alarms, sprinkler system, fire exits lighted and well-marked, fire exits unobstructed, fire extinguishers exist and are checked monthly.
- ◆ Furniture - good condition, no sharp edges.
- ◆ First aid kits - exist and are maintained.
- ◆ Walking and work areas - clean, good repair, non slip carpets, proper lighting.
- ◆ Hazardous materials (e.g. cleaning materials) are stored properly.

What to Know About Employment Standards

Purpose

Acquire knowledge of existing employment standards within the workplace and their effect on the health and safety of workers.

Key Concepts

Understand how employment standards have changed over time in the workplace and that affects health and safety in the workplace.

Required Materials & Equipment

Video on employment standards, DVD & TV (optional)

Plan of Action

1. Teacher oriented:

- Introduce the meaning and rationale for employment standards within the workforce
- Review the employment standards found within Australia
- Discuss how employment standards are different around the world and how they have changed over time (e.g. child labour, immigrant labour).

2. Research project: Students conduct a research project on one of the following:

- a) employment standards in Australia;
- b) employment standards that exist in other countries;
- c) how employment standards have changed - from past to present (suggest last 25 to 50 years);
- d) the role of employment standards in promoting health & safety;
- e) a combination of the above;
- f) the various groups that have contributed to developing the standards;
- g) the connection between Labour Day and employment standards.

Students will present their research in the form of a speech or some other method that will allow them to teach their peers the contents of their research project.

3. **Discussion:** Review the importance of standards set within the workplace. Discuss the potential results if such standards did not exist.

Assessment

Level of research and content of written speech.

Extension

Overview: Students schedule a typical day or week of an employee to include/identify all appropriate/applicable employment standards (e.g. working hours, breaks etc.).

Letter: Students write a letter to a fictitious company or to a Member of Parliament expressing their concerns about child labour in other countries, comparing these to Australian employment standards.

CHAPTER FIVE

Role-Playing & Promoting

Architect for a Day

Purpose

Understand the impact accidents may have on physical abilities; promote awareness and respect for people confined to wheelchairs.

Key Concepts

- Injuries as a result of accidents can have various long and short-term effects on our lives. For example, a person has lost his/her ability to walk due to an accident and as a result is confined to a wheelchair.
- There are numerous supports that help people in wheelchairs to go about their daily routine. However, there is a need to minimise the challenges faced by people in wheelchairs. There is also a need for continuing education in the prevention of accidents.
-

Required Materials & Equipment

Teacher resources: large pieces of paper, pencils and pens, markers

Plan of Action

1. **Brainstorm:** In groups, students are responsible for designing a home for a young person who has recently been confined to a wheelchair due to a workplace injury. Students begin by brainstorming the concerns, needs and adaptations faced by a person confined to a wheelchair. Students then come up with design changes for a house in which such a person would find increased comfort and accessibility.

2. **Students Create:** Students draw the house on large pieces of paper. Groups may decide that half the group will work on the upstairs of the house and the other half the downstairs, **or** each group member works on a specific room in the house.

3. **Presentation:** Students present and display the house to the entire group.

Assessment

Presentation and content of art work.

Extension

Guest speaker: Invite a guest speaker to the class to share with students their experiences and the challenges they face being confined to a wheelchair.

Varying architects: Students design a location of their choice for a person confined to a wheelchair (e.g. mall, shop area, school, means of transportation etc.).

For sale: Students brainstorm ways in which they could market their created home/workplace.

Architect for a Day

Materials: stack of flip chart paper, markers, pens and pencils

Plan of Action

A friend of yours was involved in an accident while on the job. Unfortunately, the accident has left him/her unable to walk. You recently won the lottery and wish to help your friend, who has been confined to a wheelchair.

Design a **dream home** for your friend confined to a wheelchair. Create a house with all the details that will help them adjust to the challenges of being in a wheelchair.

- ◆ Each group member may wish to design their own house OR each group member may decide to design a specific room of the house.

Campaigning for Safety

Purpose

Identify the hazards, risks and safety concerns of daily activities while developing awareness materials promoting health and safety.

Key Concepts

- Definition of hazard: take a chance; expose to risk; peril.
- Definition of risk: expose oneself to the chance of loss or harm; danger.

Required Materials & Equipment

Tape, extra art supplies for student use, scissors, markers, glue

Plan of Action

1. Briefly discuss various workplaces and jobs that exist. Identify the school as a workplace for this age group. As a class, create a job description for the position of student with the school representing their workplace.

2. Brainstorm:

- Ask students for the definition of hazard and risk. Review, define and provide examples for these terms.
- Discuss and list on the board the hazards and safety concerns in the school environment (e.g. in classroom, halls, gym, playground etc.). Describe what additional hazards and risks might exist for a person who is physically impaired.

3. **Discuss school rules:** Challenge students (in pairs, individually or as a class) to name all the school rules as well as to identify the rationale behind each rule.

4. **Create promotional materials:** Discuss various types of promotional methods that exist and their goals (TV commercials, posters, pamphlets etc.).

- Students design and create health and safety promotional materials for the school.
- The materials can enforce safety rules that are currently in place as well promote other safety issues and concerns that have been identified. For example, promotional materials can include posters and pamphlets to hang up around the school for viewing by all students and staff; or students can create a commercial, video or song. The promotional materials should depict safety issues identified all over the school, from the playground to the bathroom.

Assessment

Health and safety promotional materials created; group participation.

Extension

Target audience: The promotional materials can be designed to target various audiences or workplaces (home, part time jobs etc.). For example, older students adapt the language and design of the materials to target health and safety issues for a younger audience **OR** for their peers who are beginning to enter the workplace (part-time or summer employment).

Examples of Safety Concerns and Issues in the School Environment

- garbage lying around
- running in the hallways
- cleaning solutions used
- playground safety: pushing, shoving and horseplay
- playing alone in gym or playground
- keeping area clean and neat (avoid slips, trips and falls)
- caution when opening doors
- transportation to and from school (bus, car, walking, bike)
- sitting down while eating (avoid choking)
- classroom tools and products (scissors, stapler, glue, toxic markers)
- fire drills & exits
- dressing appropriately (inside & outside)
- using climbing or playground apparatus
- wearing protective equipment during sports
- washing hands and eating utensils
- science lab products and tools (hazardous materials, Bunsen burner etc.)

Flying Health & Safety Flags

Purpose

Become aware of daily health and safety issues and learn that everyone has a role to play in health and safety promotion.

Key Concepts

- A hazard is a condition or practice which can potentially lead to an accident or loss. There are four types of hazards: chemical, physical, ergonomic and biological
- A key element in any safety program is the recognition of hazards. The factors examined in hazard recognition include: people, equipment, materials and environment.
- Definition of promotion: the act or process of furthering the development, growth, or acceptance of something.

Required Materials & Equipment

Judge for contest (optional), art materials (paper, markers)

Plan of Action

1. Brainstorm & review:

- As a class, discuss the definition of promotion. What is the purpose of health and safety promotion, and is there a need for it?
- As a class, brainstorm health and safety concerns and hazards within their daily activities (e.g. home, school, work environment, recreation, travelling to and from school etc.).
- List various organisations in the community that are involved in health and/or safety promotion (e.g. WorkSafe, Red Cross, Cancer Foundation, etc.).

2. Students create:

- Challenge students to design a safety flag promoting health, safety and the prevention of accidents. Flags can be created for various health and safety issues. You may decide to involve another class or all students within the grade level in the competition.
- Option to paste student individual flags together to make large class version (make sure students use same size paper).
- Involve community members or school administration in the judging of the flags.
- The flags can be displayed around the school and/or community.

Assessment

Involvement in discussion; creativity and effort in flag creation.

Extension

Letters: Students write and send a letter to a friend promoting health and safety awareness.

Create cards: Students create greeting cards on the theme of health and safety promotion.

Flying Health & Safety Flags

Materials: flip chart paper, markers, paint brushes & paint

Plan of Action

1. List:

- As a group, list all the health and safety concerns and hazards that a person your age may face every day (e.g. at home, school, work, playing sports, travelling to and from school etc.)

2. Create:

- A large company has hired you to create safety flags. These flags will be sold around the world and flown to help others keep safe and free from injuries and accidents.
- Using the materials provided, design flags with a safety theme. Flags can be created for any of the health and safety issues you listed in #1.
- Each group member should create a flag - the more the better!

The Four Types of Hazards

1. Chemical hazards: Examples of chemical hazards include liquids (office supplies, cleaning products, paints, acids); vapours and fumes; gases (oxygen, propane, carbon monoxide); flammable, combustible and explosive materials. Chemical hazards can enter the body through inhalation, ingestion, absorption or injection.

2. Physical hazards: Examples of physical hazards include machinery (exposure to moving parts), electricity, vibration, noise, temperature (heat and cold), dust, fibres and radiation.

3. Biological hazards: A biological agent is any living substance that can cause illness or disease. Bacteria, moulds, mildew, fungus and viruses are examples of biological agents. Biological hazards can be found in workplace settings which involve food or food preparation; animals (e.g. animal bites); plants (e.g. poisonous plants); sewage and sanitation; hospitals or child care settings (e.g. improperly stored waste).

4. Ergonomic hazards: The ergonomics of our workplace can have an impact on our physical well-being. As we attempt to alleviate stresses and possibilities for error, we must consider the lighting, workstation layout, video display terminal, impact of shift work, controls, physical task demands, and many other factors. For additional information, refer to activity E9, What is Ergonomics?

Welcome to 'SAFEmark'

Materials: stack of construction paper, scissors, markers, glue, flip chart paper

Plan of Action

1. Your group members have just been hired by a top greeting card company 'SAFEmark'.

You are all responsible for designing a new line of greeting cards related to safety. The cards can be designed for any age group and can deal with job safety issues of your choice. For example, safety labels, recognizing the dangers in the workplace, proper lifting techniques etc.

- ◆ The only other request from the company is that the greeting cards sell (i.e. people like them and they send a strong message about keeping safe on the job).

Health & Safety Word Lingo

Purpose

Familiarize with health and safety terminology through various language arts activities.

Key Concepts

- It is important that students become familiar with vocabulary associated with health and safety (e.g. saying 'no', rights & responsibilities, first aid kit, ask for help - possibilities are endless).
- Definition of mnemonic: aiding or intended to aid memory.

Required Materials & Equipment

N/A

Suggestions for Learning

Running list: Keep a list in the classroom (e.g. taped to a wall) of health and safety related words. On a regular basis, as a class or at student leisure, health and safety related words are added to the list and reviewed periodically. Students create sentences with new words or a story using a number of the words from the list.

Limericks: Students brainstorm safety words. Using these words, students create limericks with a safety theme. For example, a limerick on the dangers of confined spaces:

Billy Bob scrunched into small spaces.
He landed in many weird places.
One day he got caught.
His arteries did clot.
Now the results of unsafe practice he faces.

author: G. Kierstead

New words: Students invent fictitious words related to health and safety and provide a definition. For example:

- 1) created word: **HAZWOPER**
definition: **hazardous waste operations emergency response**
- 2) created word: **BAHEW**
definition: **be alert for hazards everywhere**
- 3) created word: **REPROTRAIJ**
definition: **receive the proper training for the job**

Mnemonics: Students create mnemonics related to health and safety. For example, mnemonics related to safety in the shop:

5 rules for shop safety: **CHART**

- 1) No loose or baggy **C**lothing
- 2) Absolutely no **H**orse play
- 3) Always **A**sk permission to use machinery
- 4) No **R**unning
- 5) Never **T**alk to the machine operator

4 rules for shop safety: **LAND**

- 1) **L**isten to directions carefully
- 2) Pay **A**ttention
- 3) **N**ever work unsupervised
- 4) **D**ull blades are more dangerous than sharp ones

Assessment

Teacher and peer evaluation.

In Case of Emergency

Purpose

Through role play, discover the importance of having an emergency action plan in place.

Key Concepts

- Use caution when presenting accident scenarios to the class.
- The importance of planning for what might be, an emergency plan will think when you don't have time to.
- **Did you know...?** If a job requires a person to work alone or go to remote locations on their own, the Work Health and Safety Regulations require that the employer write a code of practice. This includes measures by which the employee working alone would access emergency assistance, and outlines procedures for minimizing their risks.

Required Materials and Equipment

Sample emergency situations

Plan of Action

1. Teacher oriented:

- Begin the discussion by asking the class if they would know what to do in various types of emergency situations (in the home, at school, at a job, etc.). Do they have an emergency plan in place at home?
- Review the importance of having an emergency action plan in place.

2. **Group work:** Separate students into small groups. Provide each group with a different emergency scenario. Groups describe what they would do in their given emergency situation, (research if necessary).

- Encourage groups to look at all possibilities that relate to the situation. For instance, responses should be more involved than simply using a cell phone to call 000.

3. **Role play:** Each group role plays its scenario and emergency action plan to the class. Invite students to offer other suggestions for each of the emergency plans.

Adaptation

- **First Aid Olympics:** Have stations set up around the gym, class or in a field outside. At each station, a different emergency situation is described. In small groups, students run around to each station and respond to the different emergencies. On a sheet of paper, students describe how they would respond to the situation.
- **OR** groups of students act out a given emergency scenario. Other groups of students observe the scenario and decide how they would react to the situation. After the fact, the group acting the scenario evaluates their peers' response to the situation.

Assessment

Group work and presentation for responding to an emergency; refer to Extension for additional assessment tools.

Extension

Take personal responsibility: Individually, students create an emergency action plan for something within their personal life. For example, a plan for their home (e.g. in case of fire), while in the car, during a leisure activity etc. Students write a description of the plan and create a diagram to illustrate its execution.

Emergency plan for a workplace: Students choose a workplace in which they are interested. By conducting an interview with a person who works there (or with a parent/relative), students research the emergency action plan in place for that particular workplace.

Sample Scenarios of Emergency Situations

1. You and your co-worker are working alone deep in the woods. A tree falls on your co-worker's leg. What do you do?
2. You are working in a restaurant kitchen. A grease fire breaks out on the stove. What do you do?
3. You are at the mall with your grandmother. She is confined to a wheelchair. The power goes out. What do you do?
4. You are at home baby-sitting your younger sister. There is a huge storm outside. The power goes out. What do you do?
5. You are working in the basement of a factory. A water pipe breaks and throws a co-worker to the ground. What do you do?
6. You and a friend are deep in the woods on a bike ride. Your friend falls down a steep hill, hits his head and is bleeding. What do you do?
7. You are driving home from work. It is late and you are on a quiet country road. Your car breaks down. What do you do?
8. You are watching a movie at the theatre. There is noise which sounds like an explosion, the movie goes off and all lights are out. What do you do?
9. There is a chemical spill and a fire breaks out at your workplace. What do you do?
10. You are at the beach with a friend. Your friend dives into the water and doesn't resurface. What do you do?

Interview Questions for Evaluating an Emergency Action Plan

Name of person interviewed:_____

Job title:_____

1. Describe your job duties and responsibilities.

2. Describe the hazards in your workplace.

3. What type of accidents and/or injuries have taken place in your workplace?

4. Is there an emergency action plan in place at your workplace?
If so, describe it. If not, skip to question #6.

5. Do you think the emergency plan would be effective in an emergency situation? If not, what changes would you make?

6. What role do you think workers should play in the event of an emergency?

Mock Emergency

Purpose

Create an emergency action plan (EAP) for various types of emergency situations; practice responding to an emergency situation.

Key Concepts

There is a need for practical application in reacting to emergency situations. Having an emergency action plan helps people respond quickly to unexpected events with the best methods for that situation. Emergency action plans should be practised and reviewed on a regular basis to ensure that everyone understands and can execute their role.

Required Materials & Equipment

Examples of emergency situations

Plan of Action

1. Teacher oriented:

- Review a recent video or newspaper article on a disaster and/or emergency situation (e.g. fire, explosion, anaphylactic shock, accident).
- Ask students to discuss what they would do if a disaster or emergency situation occurred close to or in their school.
- As a class, brainstorm ideas for dealing with various types of emergencies.
- Discuss with the class how circumstances and procedures might differ depending upon the time of year.

2. Role play: In small groups, the students or the teacher assigns roles to play in dealing with an emergency situation, and then create a mock emergency to gauge their preparedness. Groups present their mock emergency to their classmates. Students critique one another and make suggestions for improvements to the emergency plans presented.

Assessment

Involvement in discussion; peer, self and teacher evaluation of participation and performance in mock emergency.

Extension

Presentations: Students present emergency action plans for various examples of emergencies to school administration and/or other classes.

Certification: Inform students of the various safety training courses available within the community for their age group (e.g. Red Cross, St. John Ambulance etc.).

Poster Campaign

Purpose

Gain an understanding that we all play a role in health and safety education.

Key Concepts

Every individual has a role to play in promoting health and safety as an integral part of life. Although health and safety issues vary depending on the age group, health and safety should be taught in all settings, be it the home, workplace, school and/or playground.

Required Materials & Equipment

Large pieces of paper & tape, markers/crayons

Plan of Action

1. Students Create:

- Individually or in small groups, students are responsible for designing and creating health and safety promotional posters for the rest of the school.
- Students begin by brainstorming health and safety issues and concerns they face within their age group in terms of injury prevention and safety in the workplace, home and/or school.
- With this information, students design and create posters to display the health and safety issues and concerns with the goal of promoting health and safety to others. Posters can be created for various areas of the school, subjects or activities (e.g. science lab, playground safety etc.).

2. Presentation: Students present their posters to the class.

3. Writing assignment: Students reflect on their role in helping teach others about health and safety issues. How might this role be a daily event (e.g. siblings, peers)?

Assessment

Content and messages created on posters; writing assignment.

Extension

Presentations: Students use various presentation methods to promote health and safety (i.e. develop TV or radio commercials, skits etc.).

Poster Campaign

Materials large pieces of paper, paint & brushes and/or markers

Plan of Action

A group of new students from afar just arrived at your workplace (or school). They do not speak English and the Australian culture is new to them.

- ◆ Your group is responsible for designing and creating posters to help teach them about safety issues in the workplace (or school). For example: ways of keeping safe on the job, recognizing dangers, protecting yourself and others, preventing accidents etc.
- ◆ First, discuss the safety issues you wish to focus on, in any type of workplace, and then create the posters.
- ◆ **Create as many posters as you wish - the more you create, the better they will learn about keeping safe on the job.**

Student Documentary - Reporting on the Workplace

Purpose

Provide opportunity to learn more about the rights and responsibilities of employees and employers in the workplace by researching and recreating actual workplace injuries to determine preventive measures.

Key Concepts

- Definition of documentary: presenting or recording factual information in an artistic fashion.
- Refer to Appendix A for information on the rights and responsibilities of the employer and the employee.

Required Materials & Equipment

Case studies (refer to General Appendix), digital video camera, TV, portion of a documentary (optional), props for videos

Plan of Action

1. Teacher oriented:

- Introduce the topic by showing a clip from a documentary (optional)
- Review the definition and objective of a documentary
- Discuss the events depicted in a sample documentary as well as methods used to report the facts.

2. Working groups:

- In groups, students will select, create or be assigned a case involving an accident.
- Using the events of this case, the groups will create a documentary-style video, playing roles such as the injured employee, the employer, an investigative reporter, family members, co-workers etc.
- The student documentary should show how the accident could have been prevented; detailing specifically what preventive actions the employee and the employer should have taken.

3. Group presentations: Presentations of videos to other groups.

4. Class discussion:

- Discuss further preventive actions that could have been taken in each of the various cases.
- Review the rights and responsibilities of all people within the workplace. Students describe their interpretation of the concept that all accidents are preventable.

Assessment

Content and message presented on video (teacher and peer evaluation of group documentaries); involvement in discussions.

Extension

Personal reflection: Students reflect upon an injury in which they were involved and describe means by which the accident could have been prevented.

Student Documentary - Reporting on the Workplace

The three rights of an employee:

1. The right to know about workplace hazards and to receive training on how to do the job safely.
2. The right to participate in solving health and safety problems.
3. The right to refuse dangerous work.

As an employee, you have a legislated responsibility to:

- follow the safety rules and regulations (comply with the Work Health and Safety Act)
- ask for the training you need
- report all injuries and unsafe working conditions/hazards
- wear the proper protective equipment
- co-operate with WorkSafe safety representatives
- do the job safely

As an employer, you have a legislated responsibility to:

- take reasonable precautions
- comply with the WHS Act and ensure that employees comply with the Act
- maintain equipment
- advise workers of hazards
- provide training and supervision
- provide personal protective equipment
- co-operate with the safety representative

Let's Tell Others About Safety!

Purpose

Teach others about safety and the prevention of injuries.

Key Concepts

We all play a role in safety education.

Required Materials & Equipment

Art supplies, digital video camera, props for role play, art supplies

Suggestions for Activities

1. **Role models:** Discuss the concept of role models with the class. Invite students to identify role models in their lives and reasons they view them as role models. Ask students if they think they are a role model to someone else (e.g. siblings, friends, younger students). How do role models influence behaviour?

The following are suggestions for activities related to acting as a role model in safety education. The activities are related to injury awareness and prevention; they also play a part in helping teach others about safety education.

- **Bumper Art:** Using strips of construction paper, students create bumper stickers that convey messages related to injury prevention and safety awareness. Circulate and display the bumper art around the school.
- **Catchy Tunes:** Students work on creating rhythmic jingles, tunes or limericks that could help teach younger students about making lifestyle choices that would prevent injuries. Familiar melodies can be used.
- **Safety Skits on Tour:** In groups, students focus on a safety theme (e.g. safety at home, in the workplace, recreational safety etc.). Groups create a short TV commercial that will teach others about the dangers of hazardous habits within their chosen safety theme.
- **Comic Book:** Students choose a potentially hazardous habit common among people their age. Individually or in pairs, students write and illustrate a comic book that will teach others about potentially dangerous choices and their consequences. Students share their comic books with other students/classes.

Assessment

Peer, self and teacher evaluation (participation and end product).

The Four Types of Hazards

Purpose

Describe the four types of hazards and provide examples for preventing injuries as a result of such hazards.

Key Concepts

There are four types of hazards: **chemical**, **biological**, **ergonomic** and **physical**.

Required Materials & Equipment

Samples of the four types of hazards

Plan of Action

- 1. Introduce:** The teacher will review the four types of hazards by presenting a number of tangible samples of each (optional).
- 2. Construct:** Ask students to construct the chart found on the following page, or provide them with a copy of the chart. Students conduct research and describe a number of examples for each type of hazard for the various locations mentioned within the chart. The teacher may want to provide out-of-class time for students to complete the chart.
- 3. Sharing of information:** Students share their completed chart with others.
- 4. Preventative measures:** Using the examples of hazards mentioned within their chart, students describe safety tips for several of the hazards. For example, when using cleaning supplies (a chemical hazard), be sure to read the directions carefully, use protective gloves, never ingest the product etc. Students may create safety labels for the examples of hazards.

Sample chart:

<i>Locations</i>	<i>Chemical Hazards</i>	<i>Biological Hazards</i>	<i>Physical Hazards</i>	<i>Ergonomic Hazards</i>
<i>Found at home</i>	* Mr. Clean * propane tank on BBQ	* mould growing in the fridge	* lawn mower * electrical appliances	* sitting improperly on couch
<i>Found at school</i>		* blood (nose bleed)		
<i>Found in the workplace</i>				
<i>Found outdoors</i>				

Assessment

Content and completion of chart; preventative measures for a number of identified hazards.

Extension

Workplace hazards: Students conduct an interview with an employee from the workplace of their choice to research specific hazards that exist within the workplace. Students categorize identified hazards under the appropriate heading: chemical, physical, biological or ergonomic hazard.

The Four Types of Hazards

1. Chemical hazards: Examples of chemical hazards include liquids (office supplies, cleaning products, paints, acids); vapours and fumes; gases (oxygen: its explosive nature when ignited, propane, carbon monoxide); flammable, combustible and explosive materials. Chemical hazards can enter the body through inhalation, ingestion, absorption or injection.

2. Physical hazards: Examples of physical hazards include machinery (exposure to moving parts), electricity, vibration, noise, temperature (heat and cold), dust, fibres and radiation.

3. Biological hazards: A biological agent is any living substance that can cause illness or disease. Bacteria, moulds, mildew, fungi and viruses are examples of biological agents. Biological hazards can be found in workplace settings which involve food or food preparation; animals (e.g. animal bites, faeces); plants (e.g. poisonous plants); sewage and sanitation; hospitals or child care settings (e.g. improper stored medical waste).

4. Ergonomic hazards: The ergonomics of our workplace can have an impact on our physical well-being. As we attempt to alleviate stresses and possibilities for error, we must consider the lighting, workstation layout, video display terminal, impact of shift work, controls, physical task demands, and many other factors.

Find the Hazards

<i>Locations</i>	<i>Chemical Hazards</i>	<i>Biological Hazards</i>	<i>Physical Hazards</i>	<i>Ergonomic Hazards</i>
<i>Found at home</i>				
<i>Found at school</i>				
<i>Found in the workplace</i>				
<i>Found outdoors</i>				

What I Look for in an Employer or Employee

Purpose

Reflect on desirable traits of an employee and an employer and their roles in the workplace.

Key Concepts

There are unique roles in the workplace; however, safety must be a part of everyone's job.

Required Materials & Equipment

N/A

Plan of Action

1. **Brainstorm:** Ask students to envision their dream job and: a) list what traits/characteristics your employer would possess; b) list what characteristics/traits the employer should expect from you, the employee.

Students compare and contrast their two lists of characteristics. Students share their lists with others.

2. **Role play:** In pairs, students write an imaginary dialogue between an employee and employer in various troubling situations that may arise in the workplace. For example, safety concerns, refusing dangerous work, need for additional safety regulations or training etc. The possibilities are endless. Students take turns playing each of the roles.

3. **Presentations:** Groups present their dialogue to the class.

4. **Writing assignment:** After reading the following statement, students describe the challenges they may encounter in working with others and explain how they will deal with such challenges.

Throughout our lives we will work with many different types of people. We will get along with some of them better than others.

* Encourage students to brainstorm and/or share their thoughts with others.

Assessment

Peer, self and teacher evaluation of dialogues; evaluation of writing assignment.

Extension

Interview: Students conduct an interview with a friend or family member on the roles and responsibilities of the employer and employee in the workplace. The following questions may be used as a guide throughout the interview:

1) What challenges do the employer and employee face, and how do they differ from one another?

2) What kinds of safety concerns, if any, have arisen where the employee or the employer has brought a safety issue to the discussion? How was the safety issue/concern dealt with?

3) What is needed for a good employee-employer relationship?

CHAPTER SIX

Workplace Safety

100% Lock-out

Purpose

Define zero energy state and the importance of lock-out when working with electrical equipment and machinery.

Key Concepts

- If we need to perform maintenance or to clear jams on any type of machine, the WHS act requires that a machine be in a zero energy state and under lock-out before either of these tasks are attempted.
- **Lock-out:** physically put a lock on a machine's main power source.
- **Tag:** A written warning placed on the lock that identifies the person who has put a lock on the machine's main power source.
- Zero energy state is defined as the state in which a machine has been temporarily rendered incapable of unintentional start-up or movement because all power sources have been shut-off and/or disconnected; all sources of residual energy, such as gravity, hydraulics, compressed air, springs, capacitors, etc. have been drained, bled off or blocked.
- Lock-out is a method of keeping equipment from being set in motion, which could result in endangering workers. In lock-outs, a disconnect switch, circuit breaker, or other energy isolating mechanisms is in the off or a safe position. A device is often placed over the energy-isolating mechanism to hold it in the safe or off position. A lock and tag are attached so that the equipment can't be energized.
- A substantial number of accidents happen due to individuals failing to properly lock-out the machine with which they are working. Never work on any machine or equipment that is not completely shut down and in zero energy state.

Required Materials & Equipment

Examples of injuries that have resulted from improper lock-out procedures, paper & pencils

Plan of Action

1. Discussion:

- Brainstorm reasons why electrical accidents and incidents take place.
- Provide a definition for lock-out and zero energy state to the class. Discuss why zero energy state is so important when an employee may need to fix/work on a machine.

2. Zero energy state in the home: Individually or in small groups, students create zero energy state procedures for the home. First, groups list all electrical equipment and appliances in and around the home. Then, they create safety rules for using such equipment and appliances. For example:

Zero energy state for the home:

To prevent injuries or accidents, everyone living in this home must observe the following rules related to electrical safety:

- Never put metal objects in the toaster while the toaster is plugged in.
- Never put hands, feet or objects near or under the lawn mower when it is in operation.
- Never put hands or fingers inside the blender when it is plugged in.
- Never put hands or other objects inside garbage compactor unless it is in zero energy state.
- Never use electrical appliances near water (e.g. radio near bath, hairdryer next to filled sink).
- Never leave any electrical appliances or equipment unattended while in operation.
- Always be sure that all electrical equipment and appliances are in zero energy state (unplugged, turned off) when finished using.

3. Presentations: Students present their rules to the class.

Assessment

Students hand in for evaluation their created safety laws.

Extension

Visual aids: Borrow lock-out and tag safety devices from a local workplace to show to the class. Tour machine shop/wood working area in school (if in existence) to view lock-out and tag devices and procedures (if available).

Guest speaker: Invite electrician or trained worker to discuss safety tips at home and in the workplace related to electrical safety, lock-out and tag.

Cave-In

Purpose

Examine the dangers of working in trenches that are not properly excavated or monitored.

Key Concepts

- Working in trenches can be dangerous. In a trench or excavation, soil will naturally be disturbed and will move downward and inward. Soil can weigh 50-70 kilograms per cubic foot. The type of soil can influence the stability of the trench. Weather, traffic, vibrations and pressure can make the soil less stable and cause cave-ins.
- Danger signs for cave-ins include: cracking in excavation walls, bulging of materials from the trench sides, and separation of small clumps from the trench sides.
- Some causes of injuries related to trenching are: material falls into the trench on top of worker; worker falls as he/she attempts to climb in or out of trench; worker is exposed to toxic gases while handling or placing material (i.e. moving soil).

Required Materials & Equipment

Cases involving trenching/cave-in accidents, soil, glass container, small plates, paper & pencils

Plan of Action

1. Introduction:

- Placing soil samples on trays/plates, the class observes each type of soil. Discuss the differences and similarities between the various soil types.
- Review the three types of soils .Classify the soils.

2. Demonstration (optional):

- Using soil, a glass jar and something representing a person, demonstrate to the class the cave in of a trench. Review the weight of soil and the loss of bodily movement even in a slight cave-in.

3. Discussion:

- Brainstorm as a class the types of workplaces and/or activities that involve trenching.
- Read aloud a number of cases involving cave-ins. As a class, discuss the causes and effects of the cave-ins reviewed.

4. Do's and Don'ts:

- Students create a do's and don'ts list for trenching.
- Students create drawings showing proper excavation techniques.

Assessment

Do's and don'ts list for excavations.

Extension

Guest speaker: Invite a person who has experience in trenching and/or has been involved in an accident related to a cave-in.

Facts on Soil Types

Soil Type A - Most stable soil; hard to break up when dry and holds together when wet; clay and hardpan are examples of soil type A.

Soil Type B - Next most stable soil; examples include silt, sandy loam, medium clay and unstable dry rock.

Soil Type C - Least stable soil; this soil is made up of gravel, loamy sand, soft clay, submerged soil or dense and heavy unstable rock.

Protective Systems for Trenches

Sloping or benching are protective measures that cut the walls of an excavation back at an angle to its floor.

Sloped system: angled cut at a 1 - 1 slope.

Bench system: one or more steps carved into the soil.

Shoring or **shielding** are two protective measures installed that add a support structure to an existing excavation. They prevent cave-ins by supporting the trench walls.

Dangers of Confined Spaces

Purpose

Define, provide examples and describe the dangers of a confined space.

Key Concepts

- A confined space is a space that is enclosed or partially enclosed; it is not designated or intended for continuous human occupancy; it has restricted access or egress and is or may become hazardous because of its design, location, construction, atmosphere, or the materials contained within it.
- Examples of confined spaces include: sewer lines, holding tanks, silos, pipelines, boilers, and chemical containers. There are four main dangers in confined spaces: oxygen deficiency/enrichment, fire or explosion, toxicity and drowning in liquids or free-flowing solids.
- Accident statistics suggest that about 60% of deaths in confined spaces resulted from oxygen deficiency and lack of air quality testing. More than half of those people who died in confined spaces did so while trying to rescue fellow workers.

Required Materials & Equipment

Tragedies involving confined spaces, construction paper, art materials

Plan of Action

1. Teacher oriented:

- Read aloud examples of tragedies involving confined spaces. From what has been described, ask students for a definition of a confined space; then review the definition of a confined space.
- Brainstorm examples of confined spaces located in the community, school and home.

2. Students create:

- Discuss how a number of children have died as a result of hiding or playing in a confined space (e.g. empty freezer, fridge, car trunk, clothes dryer).
- Using art materials, students create safety tips for younger students for playing hide-and-seek. The safety tips should include the dangers of confined spaces as well as other related safety tips.

3. Application to the workplace: Using the contents of the Risk Alert, review safety tips for entering a confined space at the workplace.

Assessment

Participation in creating and presenting confined space awareness materials.

Extension

Guest speaker/tour: Visit a facility with a confined space(s). Seek the expertise of a trained employee on proper methods of working in confined spaces and emergency procedures for confined spaces.

Drug-Free Workplace

Purpose

Examine the negative impacts of drug and alcohol use in the workplace. 2) Assess the lifestyle advertised in the media related to alcohol use.

Key Concepts

- Students should have some basic knowledge/background on the effects of drugs and alcohol (e.g. prescription, non-prescription, illegal, legal) before taking part in this activity.
- Drug and alcohol use can adversely impact your work and personal life. Examples of their effect while on the job: decline in job performance and productivity; increased accidents and mistakes; risk of injury to self or others; emotional instability; impact on employee morale; decreased alertness and lack of concentration; theft; increased absenteeism and tardiness; problems with physical health.

Required Materials & Equipment

Film on drug & alcohol use (optional)

Plan of Action

1. Introduction:

- Research the number of students who were absent from school in a given month. Have students estimate the cost to a company if that many workers were missing from work. For example, one lost day could equal \$100 in productivity (fictional).
- Discuss how alcohol or drug use might affect the attendance and productivity on an employee at the workplace. Present to the class costs associated with substance use in the workplace.
- Review the health and safety effects of drug and alcohol abuse on a person. How might they affect the person and their colleagues while on the job?

2. **Group work:** Assign individual or small groups one type of substance that can affect performance. Students are to complete the following chart by researching their assigned substance:

Definition of the substance	Effects of usage	Signs of use	Potential effects on job performance

3. **Presentation:** Students present their research to the class by creating an infomercial that will review the potential consequences of using the substance while on the job.

4. Media & alcohol: Alcohol manufacturers sell a lifestyle as well as a product. Students review magazines and TV alcohol advertisements and reflect on the messages being portrayed in them. Discuss or debate the following questions:

- Who is the target audience in the advertisement?
- What type of lifestyle is implied?
- Is a safe and healthy lifestyle being portrayed?
- Should alcohol manufacturers be prevented from advertising in such a manner?
- Should alcohol manufacturers be permitted to sponsor major public events (e.g. sports tournaments)?

Assessment

Group participation, completed chart and presentation; participation in media review.

Extension

Guest speaker: Invite an alcoholics anonymous representative; RCMP or police officer; person who has recovered from an addiction; employee, employer or union representative who has dealt with drug and alcohol abuse in the workplace (e.g. has been involved with an accident or loss due to the abuse).

Examples of Substances that Affect Performance

- Alcohol
- Cannabis (marijuana, hashish)
- Cocaine
- Tranquillizers (e.g. valium)
- Narcotics (e.g. opium, heroin, morphine, codeine, methadone, Demerol)
- Barbiturates/sedatives
- Phencyclidine (PCP)
- Amphetamines/stimulants
- Hallucinogens (e.g. LSD)
- Solvents
- Performance enhancing drugs

Substance Abuse Costs In The Workplace

- 38% to 50% of all workers' compensation claims are related to the abuse of alcohol or drugs in the workplace.
- Drug users have eight times more Medicare claims.
- 10% to 20% of all workers abuse alcohol or other drugs.
- A substance-abusing employee has 10 times the absenteeism.
- The average abuser performs at 67% of his/her potential.
- Abusers can cost employers 25% of their annual salary.
- 40% of industrial fatalities and 47% of industrial injuries are related to alcohol consumption.

Annual productivity losses due to substance abuse have been estimated at \$4.1 billion for alcohol, \$6.8 billion for tobacco and \$823.1 million for illicit drugs. Taken together, all forms of substance abuse account for \$11.8 billion in productivity losses.

Electrifying Safety Tips

Purpose

Review electrical safety and means of reducing the risks of electrical hazards.

Key Concepts

- Maintaining safe working conditions and using safe work practices can prevent electrical hazards. Electrical hazards occur when one makes contact with a conductor (substances that can pass electricity) carrying current. An electrical current passing through the body causes a shock. Electricity flowing through a conductor is like water flowing through a pipe. Although a potential difference (voltage) is needed to make current flow, it is the magnitude of the current which causes physiological damage.
- Safety tips: 1) never do electrical work near water or in wet conditions (any type of moisture may provide a conductive path resulting in a deadly shock); 2) be aware of atmospheric hazards that may cause an explosion or fire from a mere spark (e.g. flammable vapours, excess oxygen); 3) be sure to have proper lighting, wear proper clothing and personal protective equipment; 4) don't overload electrical outlets; 5) keep ladders clear from electrical wiring.
- Death may occur up to 15 minutes after a household shock due to the disruption of heart rhythms in the body. Warning signs (from serious to fatal): tingling in area where contact was made \in numbness \in irregular heartbeat (call for help).
- Household electrical safety: keep electrical appliances away from water (e.g. when taking a bath); do not overload electrical outlets; discard electrical cords that are damaged; keep fingers away from outlets.

Required Materials & Equipment

Art materials (optional)

Plan of Action

1. Teacher oriented:

- Show a scene from a movie or picture involving the overload of an electrical outlet (e.g. comedy movie/TV show where electrical outlets are overloaded).
- Invite students to name electrical hazards they face every day (at home, school, work) and their dangers, and record them on an overhead/chalk board.

2. Group work:

- Using the list of electrical hazards in the school, home and/or workplace, students create a checklist to evaluate/audit an environment (school, home etc.) for electrical violations (e.g. damaged wires, electrical equipment in close contact with water, poor storage of wires or cords).
- Students investigate an environment using the checklist.
- Students summarise the results of their investigation in a report, identifying any needed improvements.

3. **Mascot:** The class creates a character(s)/mascot that would help teach people about electrical hazards (e.g. comic hero, Electric Man/Woman). This character is created along with a dialogue.

Assessment

Electrical hazards violation checklist and report; participation in creation of mascot.

Extension

Guest speaker: Invite one of the following people to address the students: electrician to review electrical safety for the home and school; a safety officer from industry; an NB Power staff person; a member of the medical community to explain the physiology of electrical shocks.

Take apart centre: Invite students to bring in electronic products from home that are no longer operational. Create a 'take apart centre' where during free time, students are able to take apart the various electronic products. Students evaluate the electrical cords of the products and get an inside view of how power flows to the product.

* **Note:** Some equipment, such as televisions, have capacitors which store very high charge. Have a technician ensure they are discharged before placing them in a 'take apart centre'. A toaster, kettle, iron, answering machine or power tools are examples of electrical equipment that do not have capacitors and are safe for a 'take apart centre'.

Find the hazards: Students create a scene in which there are a number of electrical hazards. Challenge other students to find all the hazards.

Fire Safety

Purpose

Increase awareness of fire prevention strategies and identify methods of detecting and extinguishing fires.

Key Concepts

- For a fire to occur, there needs to be:
 1. fuel (solid, liquid or gas);
 2. oxygen;
 3. heat (energy for the fire to ignite);
 4. chemical chain reaction (of first three items combined).
- **Preventing fires:** practice good housekeeping; avoid electrical hazards (cords, circuits); take caution with products that may be flammable, combustible or explosive (look for the safety label).
- **In the case of a fire:** keep calm, move quickly, never use an elevator, use nearest exit, stop, drop and roll (if applicable), close doors, keep low to the ground, cover mouth and nose with damp cloth (if possible), call for help, smother flames with blanket (if possible), get out and stay out.

Required Materials & Equipment

Fire extinguisher (optional), paper, pencils & markers

Suggestions for Learning

- **Teacher demonstration:** Step by step, demonstrate how to use a fire extinguisher (optional). Refer to Appendix A; Tips for Using a Fire Extinguisher **OR** invite a member of the Fire Department to conduct a demonstration.
- **Create:** Students illustrate and label the four requirements of a fire (i.e. fuel, oxygen, heat and a chemical chain reaction).
- **Emergency plan:** Students can...
 - A) Create a floor plan of the school, home or workplace, marking all the exits, stairs, windows, and doors, locations of fire extinguishers, fire alarms and fire fighting equipment.
 - B) Outline a step-by-step emergency plan in case of fire (i.e. evacuation procedures).
 - C) Develop a list of emergency phone numbers on small cards to post by each phone in the home.
 - D) Create a checklist of things to look for in various settings in case of a fire. For example, in a movie theatre, take note of fire exits; in an unfamiliar building, take note of exits, stairways, first aid kit.

- **Writing assignments:**

A) What role do you play in the prevention of fires in your home and workplace?

B) Describe, step by step, how to use a fire extinguisher. Draw and label a fire extinguisher.

C) Outline what one should do and not do if trapped during a fire.

D) Detail instructions for fire evacuation routes in your home or workplace. For example, include appropriate steps to take if various access routes were blocked.

E) Create an emergency procedure plan for a workplace of your choice (or for the home).

- **Fire promotion:** Promote fire safety to other students during fire safety week.

Assessment

Varies based on activity.

Tips for Using a Fire Extinguisher

PASS

- P** **P**ull the pin.
- A** **A**im the nozzle of the extinguisher at the base of the flame.
- S** **S**queeze the trigger. Make sure that the extinguisher is held upright.
- S** **S**weep the extinguisher back and forth over the fire making sure that all the fire is covered.

In Case of Fire!

Materials: flip chart paper, paper, pencils, markers

Plan of Action

1. Investigate:

- Your group has been hired by the Fire Marshall to evaluate your school fire safety program.
- Your group will circulate around the main floor of the school (take no more than 10 minutes) to take note of the location of the following:

A - all doors, windows, stairways;

B - all fire extinguishers, first aid kits, fire alarms;

C - location of sprinklers and smoke detectors;

D - signs related to emergency situations.

2. Create:

- Using the flip chart paper and markers, create a floor plan of the school with locations of all the above (A, B, C, D).

3. Recommendations:

Make a list of any recommendations your group can suggest to improve the school's fire safety program.

Health & Safety Checklist - Evaluating the Workplace/Activity

Purpose

Develop and carry out a health and safety checklist for evaluating a workplace (or activity).

Key Concepts

- Every individual is responsible for his/her personal safety. You have a right to know how to do the job safely. Make sure you are prepared and informed. Being aware of the hazards can reduce your risk of injury.
- A health and safety checklist can be a useful tool in identifying the hazards in the workplace/activity and in the prevention of accidents.

Required Materials & Equipment

N/A

Plan of Action

1. **Class discussion:** Review the existence of hazards in any given work environment (e.g. the home, school, workplace, outdoors). How do we determine if a workplace is safe? How can we reduce the risk of injury?

2. **Brainstorm:** Students choose a workplace or activity of their choice on which to focus (e.g. biking, roller-blading, mowing lawn). Students list all the hazards that may exist within their chosen workplace/activity.

3. Develop a checklist:

- Discuss the role of a health and safety inspection checklist in determining how safe a workplace/activity is and its role in hazard recognition and in preventing accidents.
- Using their created list of hazards, students develop a health and safety inspection checklist for their workplace/activity.

4A. Apply it to the workplace:

- Students find an employee or employer and use him/her to review the accuracy of their developed health and safety checklist. For instance, if the checklist was developed for a restaurant, the student seeks a restaurant employee and/or employer to review their checklist to determine its accuracy within the workplace.
- The student questions the worker to complete the checklist for the particular workplace. **OR**, if possible, the student uses the checklist to inspect the actual workplace.

4B. Apply it to an activity:

- Students review the accuracy of each others' developed checklist. For example, if checklist was developed for bike safety, partner reviews items on checklist to be sure it is all encompassing with regards to bike safety.

5. Analyse the data:

- Once the checklist is completed, students review their findings and complete the chart below.

Assessment

Review of individually created health and safety checklist and completion of Inspection & Audit of a Workplace/Activity.

Extension

Cross curricular: The health and safety inspection checklist can be developed for specific disciplines within the school. For example, at the beginning of the school year students develop a checklist for the science lab, the technology education classroom, or the gym.

Evaluating for Health & Safety

The following are items that may be included in a workplace health and safety inspection. The possibilities are endless and vary depending on the specific work environment.

- ◆ Air quality - levels of dust; smell of gases or perfumes/cologne; regulated temperature and humidity; proper ventilation.
- ◆ Building & structure - check for windows, doors, floors, exits, aisles, ramps, guard-rails, garbage removal & storage, roof, walls.
- ◆ Fire prevention - existence of smoke alarms, sprinkler system, fire exits well marked with lighted signs; fire exits unobstructed; fire extinguishers exist and are checked monthly.
- ◆ Furniture - good condition, no sharp edges, appropriate and proper storage space.
- ◆ Emergency procedures - signs & procedures posted, emergency lighting exists and employees are aware of procedures.
- ◆ First aid kits - exist, maintained and accessible.
- ◆ Walking and work areas - clean, good repair and non-slip carpets.
- ◆ Hazardous supplies & materials - proper storage, proper labelling, workplace hazardous materials labels & availability of materials safety data sheets (SDS).
- ◆ Personal protective equipment (PPE) - provided, enforced and proper type.
- ◆ Guards on all moving parts of machines.
- ◆ Housekeeping - cleanliness in all areas.
- ◆ Environmental conditions

- ◆ Proper training provided - to new and transferred employees, regarding workplace hazardous, general & job-specific health and safety, personal protective equipment (PPE) use and maintenance.
- ◆ Proper lighting in all areas.
- ◆ Eye wash stations - clean, filled, operating and tested regularly.
- ◆ Ladders and climbing devices - properly stored, in good condition and training provided on their use.

HEALTH AND SAFETY CHECKLIST SUGGESTED GUIDELINES FOR EVALUATING A WORKPLACE

	Yes	No	N/A	?
THE WORKPLACE				
Does the workplace have a new employee orientation program in place and/or takes the time to train new employees?				
Are employees provided with the rules, policies and procedures for doing the job safely?				
Are employees provided with contacts to help with questions and concerns regarding health and safety issues in the workplace (e.g. supervisor, joint health and safety committee)?				
Is there evidence of good 'housekeeping' in the workplace (e.g. free from items that may cause slips, trips and falls)?				
PROPER USE OF EQUIPMENT				
Are comprehensive instructions and training provided for using all machines and equipment?				
Is instruction provided on machine guarding (i.e. are moving parts exposed)?				
Is instruction provided on the maintenance and storage of machines and equipment?				
Is instruction provided on lock out, starting and stopping machines and equipment?				
PERSONAL PROTECTIVE EQUIPMENT (PPE)				
Is the use of PPE required on the job?				
Is PPE supplied by the employer to employees?				
Is training provided on the use of PPE?				
Is the use of PPE enforced?				
HAZARDS IN THE WORKPLACE				
Are employees made aware of existing hazards (physical, biological and chemical agents) in the workplace?				
Are employees provided with instructions on reducing and controlling the risks and hazards in the workplace?				
Are any controlled/toxic products used, handled or stored in the workplace?				
Are employees provided with proper instruction and training on handling and disposal of controlled/toxic materials?				
Are containers labelled appropriately?				
Are Safety Data Sheets (SDSs) available and accessible to all employees in the workplace?				

EMERGENCY PROCEDURES				
Are there emergency procedures in place?				
Are emergency procedures reviewed with employees?				
Are fire exits marked and accessible?				
Are First Aid kits on site, accessible and maintained?				
Are fire extinguishers on site and checked regularly?				
Are employees provided with instruction on reporting an injury, incident or dangerous situation?				
PROPER USE OF THE BODY <i>(Answering yes to either of the following two questions may be an indication that the stage is being set for a repetitive strain injury).</i>				
Does the job require a lot of lifting, pushing, pulling or carrying?				
Does the job require working in awkward postures (e.g. arms above your head or with a bent back)?				

Additional comments/observations:

Place of employment: _____

Name of employee: _____

Date: _____

Inspection & Audit of a Workplace/Activity

After conducting an inspection of a workplace/activity complete the following chart.

List any hazards observed (i.e. improper job procedures, improper working conditions, etc.)	Prioritize based on importance and possible injuries resulting (i.e. #1 requires immediate attention)	Recommendations for corrective action (i.e. means of reducing or eliminating the risk)
e.g. bad housekeeping - electrical cords lying all over, garbage and boxes in walking paths	top priority #1 can cause slips, trips or falls	clear all walking paths; tape down electrical cords and/or arrange to be tucked away; put staff in charge of housekeeping

Heat Stress & Hypothermia

Purpose

Gain knowledge about hypothermia and heat stress (i.e. definition, signs and symptoms, risks, responding to emergency situations and prevention).

Required Materials & Equipment

Research materials on heat stress and hypothermia, construction paper, glue & scissors

Plan of Action

1. Introduction: Ask the class for a definition of heat stress and hypothermia. Discuss situations in which a person might suffer from heat stress (e.g. working in a hot kitchen, highway crews on hot sunny days, boating) or hypothermia (e.g. cold weather, falling into cold water). Review important facts on heat stress and hypothermia.

2. Students create:

- Students choose between researching hypothermia or heat stress.
- Using art materials, students create a large size two paper layer pizza shape with 3D slices that lift up (i.e. cut out two large circles of the same size, cut the top piece into six triangular slices, leaving a ledge to glue to the top of the other circle).
- Use the following titles for the top of the 6 slices/panels:

1. definition	4. who is at risk (recreational & jobs)
2. why it happens	5. emergency response
3. signs & symptoms	6. how to prevent
- The inside panel, as you lift up the slice, will show the appropriate facts and information on either hypothermia or heat stress. With the help of various research materials, students find required information on heat stress or hypothermia.
- 3D pizza fact shapes are put on display/shared with other classes.

Assessment

Peer, self and teacher evaluation - effort and content of designed 3D pizza facts on hypothermia or heat stress.

Extension

Guest speaker: Invite a member of the Saint John Ambulance, Search and Rescue or Red Cross to discuss emergency response and rescue techniques for hypothermia and heat stress.

Facts on Heat Stress & Hypothermia

Facts on Hypothermia

1. Definition

- Normal body temperature cannot be maintained; cooling of the body.

2. Why it happens

- Exposure to cold atmospheric temperatures or water.
- Improper/inappropriate clothing.
- Conductive heat loss through wet clothes.
- Temperature of skin and blood drops quickly; temperature of heart, brain and vital organs gradually drops.

3. Signs & symptoms

- Trouble breathing; slowly unable to use hands; uncontrollable shivering; lips and fingernails turn blue; can result in unconsciousness or death due to heart failure.

4. Who is at risk (recreational & workplace)

- Examples: boaters who capsize; people who work outside for long periods of time (construction, foresters, etc.); hikers; swimmers.

5. Emergency response

- Get out of cold water or weather as soon as possible.
- Seek shelter from cold temperatures; if possible start a fire.
- Change into dry clothes or wrap yourself in a blanket.
- Warm up body gradually.
- Drink warm fluids.
- Seek emergency assistance if weak and dizzy.

6. How to prevent

- Wear the proper clothing: rain gear; wool clothes (better than cotton); wear a hat & gloves, proper footwear (i.e. for activity being performed), approved PFD (personal floatation device).
- Carry high energy foods.
- Be prepared for any emergency situation.

Facts on Heat Stress

1. Definition

- High temperatures put stress on our bodies. When the body's cooling system has to work too hard to reduce heat stress, it can strain itself. This physical strain, combined with other stresses (e.g. work, loss of fluids, fatigue) may lead to heat disorders, disability or even death.

2. Why it happens

- Your body always generates internal heat, but the amount of heat that stays stored in your body depends on: your surroundings, level of physical activity, type of work, time spent working, recovery time between rest periods.

3. Signs & symptoms

- Dizziness or fatigue; clammy, moist skin; physical discomfort; irritability; poor judgement; lack of attention; slow mental and physical reaction; intense thirst; heavy or absence of sweating; headache; nausea.
- As internal heat rises, surface blood vessels get bigger, increasing your pulse rate, putting a strain on the heart and circulatory system.

4. Who is at risk (recreational & workplace)

- Examples: people in warm or seasonally warm climates; people who work in hot, humid places; athletes; farmers; cooks; construction workers; workers in boilers and factories; people trying to tan.

5. Emergency response

- Move into shaded area; loosen or remove clothing and shoes; cool the victim as soon as possible; drink lightly salted water; stay with victim; rest the body; massage limbs.

6. How to prevent

- Alternate light and heavy work, indoors and outdoors if possible; eat cool and light meals (hot food adds directly to body heat, heavy foods reduce ability to get rid of heat because they redirect blood flow to your digestive tract instead of your skin surface); drink lots of cold water (it absorbs better than warm water); increase salt intake slightly; acclimatise yourself (get used to the work and climate); be in good physical condition; wear proper clothing (tight cloths restrict circulation and keep air from flowing over the skin).

Helpful Tips for the Workplace

Purpose

Demonstrate knowledge of existing hazards within various workplace settings, means of control used to address these hazards and minimise the risk of injury.

Key Concepts

The best approach to minimise risk of injury in the workplace is to:

- 1) Identify the hazards and
- 2) Take action to prevent accidents before they occur.

Required Materials & Equipment

Examples of educational brochures/pamphlets, construction paper, paper, scissors, markers & glue

Plan of Action

1. **Brainstorm:** Working in pairs, students decide on a workplace on which to focus. Students discuss all the potential risks and hazards within their chosen workplace.

2. Design & create:

- Students prepare an educational brochure to include helpful health and safety tips for their chosen job. The helpful tips can include all the things a person should be aware of for keeping safe within the particular workplace setting.
- It is important that students know brochures contain concise information the author would like to provide to the reader. Also, it is important to entice the reader with pictures, interesting facts, colour etc. (Show various educational brochures as examples).
- Students can choose the target audience for their brochure.
- Art supplies are used to create an attractive brochure.

Assessment

Effort, content and quality of brochure (peer, teacher and self evaluation).

Extension

Promotional brochure: If possible/available, students visit the workplace for which their brochure was intended and share their brochure with employees and employers for feedback. The student brochures are compared with existing educational resources available within the workplace. If the workplace has nothing in place, students can offer their ideas.

Power Point: If accessible, students create a computerized version of their educational brochure using the Power Point program.

How Important is our Hearing?

Purpose

Hearing conservation awareness.

Key Concepts

- Prolonged exposure to sound levels greater than 85 decibels will result in hearing loss.
- Hearing loss happens over time, painlessly and is permanent. Significant hearing loss usually occurs before a person even notices there is a problem.
- Definition of noise/sound: vibratory energy or waves of motion.
- Unit for measuring sound is the decibel (dB).
- Factors that affect hearing loss: loudness in decibels, type of noise (low or high frequency), and length of exposure.
- Prevention of hearing damage: distance yourself from the source; minimize exposure (e.g. rotate working schedule, turn music down); use personal protective equipment (ear plugs).

Required Materials & Equipment

Photocopies of Decibel Level Chart

Plan of Action

1. Silent charades:

- Have a number of statements in a hat to be pulled out during a game of charades.
- All students are instructed not to speak. Pick volunteers to do a charade. If students guess the charade they simply write it down on paper.

2. Teacher oriented - question & answer:

- Discuss how difficult it was for them not to speak throughout the charade activity. Discuss the challenges possibly faced by a hearing disabled person in everyday situations.
- Review the content. How does hearing loss happen? What is noise? Provide a practical example of 85 dB.
- Pass out the decibel level chart and discuss its relationship with hearing loss.
- Ask students to think of items in the home or during activities that generate noise (e.g. TV, concerts, appliances, music in headphones, lawn mower). How do they rate on the decibel level chart? Should some activities require some form of personal hearing protection?

3. Individual assignment: Students choose a workplace of their choice and research the questions found within the Research Project: Noise in the Workplace/Activity.

Assessment

Effort and content of assignment.

Extension

Guest speaker: Invite a guest speaker to teach students the alphabet in sign language; **OR** a person who has dealt with hearing loss or deafness to discuss their personal struggles and adjustments (e.g. parent who has a deaf child).

Research project: Students conduct research and create a report on noise pollution and its effect on society's health and well-being.

Research Project: Noise in the Workplace/Activity

1. Name the workplace/activity you have chosen to research.
2. What types of noise exists within this workplace/activity?
Describe the sources of the noise.
3. Are there concerns for hearing loss in this workplace/activity? If so, describe these concerns.
4. Does the workplace/activity require personal protective equipment (PPE) for hearing conservation? If so, describe which ones are used and when they are used. If not, do you believe hearing PPE should be used?
5. What types of things can we do in our everyday activities to prevent hearing loss?
6. What types of adjustments would you need to make if you lost your ability to hear?
7. How can we prevent loss of hearing in the workplace, home and school? Provide three examples for each.

Decibel Level Chart

Examples of Everyday Noise

Sound	Decibel Level
leaves blowing in the wind	10
whisper	30
conversation	60
vacuuming	70
blender	65 to 85
busy restaurant	70 to 75
busy highway	80
moving train	90
alarm clock	70 to 100
screaming baby	90 to 115
rock music concert	90 to 130
motorcycle	100
jet engine taking off	120 to 140
rocket launching	180

In Case of Fire

Purpose

Evaluate the school fire drill evacuation plan; review the role of planning and following emergency procedures in case of fire.

Required Materials & Equipment

Paper & markers

Plan of Action

1. **Brainstorm:** In groups, students list safety tips in case of fire. Compare their answers with the list found within Tips to Remember in Case of Fire.

2. **Review:** In small groups or as a class, students review the current fire drill evacuation procedure that exists in the school. Things to keep in mind include the following.

- Do all students in the school know what to do in case of fire? (Conduct a survey.)
- Do all students know where to go, no matter where they are in the school, if there is a fire? (E.g. gym, playground, bathroom, etc.)

3. **Diagram:** After conducting research and an investigation, students create a diagram of the school layout, location of exits, first aid kits, windows, stairs, fire extinguishers, fire alarms, smoke detectors and sprinklers.

* The teacher may wish to designate different areas of the school for each group (e.g. gym, halls, office, classrooms, and bathroom).

4. **Evaluation:** Students make suggestions for improvements (if needed) to the school fire evacuation plan. Suggestions can be presented to the school principal, safety committee and/or administration.

Assessment

Student research, survey and analysis; created diagram; effort in recommendations for improvements; homework assignment.

Extension

In the workplace: Students research and describe a fire evacuation plan for a workplace of their choice. Discuss the complexity of the emergency plan for some workplaces. For example, workplaces that contain a large amount of explosive chemicals will need a detailed emergency action plan in case of fire.

In Case of Fire!

Materials: flip chart paper, paper, pencils, markers

Plan of Action

1. Investigate:

- Your group has been hired by the school Fire Marshall to evaluate your school fire safety program.
- Your group will circulate around the main floor of the school (take no more than 10 minutes) to take note of the location of the following:

A - All doors, windows, stairways;

B - All fire extinguishers, first aid kits, fire alarms;

C - Location of sprinklers and smoke detectors;

D - Signs related to emergency situations.

2. Create:

- Using the flip chart paper and markers, create a floor plan of the school with locations of all the above (A, B, C, D).

3. Recommendations:

- Make a list of any recommendations your group can suggest to improve the school's fire safety program.

Tips to Remember in Case of Fire

- Try to stay calm.
- Always have more than one emergency exit (door, window).
- If your emergency escape route(s) is/are in danger of being blocked, leave ASAP.
- If you cannot safely extinguish the fire, leave.
- If you are the last one to evacuate, close any doors behind you if possible (prevents air from reaching fire).
- Never use the elevator in the event of a fire.
- Keep all stairways accessible and free from obstacles.
- If possible, cover your mouth and nose with a damp cloth.
- Stay low to the ground.
- Check to see if doors are hot before opening. If they are hot, keep them closed and use another exit.
- If your clothing catches on fire, stop, drop and roll to smother the flames. If available, use a blanket, clothing or a rug to smother the fire.
- If you become trapped in a fire, seal the cracks around the doors and vents with clothing or blankets. Keep low and wait for help.
- Immerse minor burns in cold water then cover with sterile dressing. Do not immerse major burns in ice or water. Do not remove charred clothing. Cover the burn loosely with a dressing from the first aid kit or a clean sheet/piece of clothing.
- If a person is suffering from smoke inhalation, get them to fresh air, lay them down, call for help, and administer artificial respiration if necessary.

Interview with the Workplace

Purpose

Review various working environments and their health and safety components.

Key Concepts

It is important that students explore a wide range of job opportunities, the role of jobs in society and the various safety issues associated with these jobs.

Required Materials & Equipment

N/A

Plan of Action

- 1. Introduction:** Discuss as a class the duties of a reporter. Proceed by introducing the purpose of the activity.
- 2. Interview questions:** Students develop a set of interview questions generic to any type of job/career. The goal of the interview is to learn about the job and the health and safety issues surrounding the job. To help students get started, begin by brainstorming as a class the types of questions that could be incorporated into the interview. **Or** the teacher provides students with interview questions.
- 3. Interview:** When the students complete the interview questions, they should choose a person to interview (parent, family, friend etc.). Encourage them to interview a person/job with which they are unfamiliar. Encourage students to choose different types of jobs, to ensure variety. Remind students that just as a reporter on TV, they must maintain a level of professionalism and show gratitude to the interviewee for their time and help.
- 4. Presentation:** After the interview, the students compile the information using the method of their choice and present it to their classmates (e.g. report, oral presentation, recorded on video or audio tape etc.). Regardless of method of presentation, the material should be informative and contain safety information related to the job.

Assessment

Evaluation of interview questions, content and presentation of the information gathered from the interview (having a strong safety content incorporated).

Extension

Presentation styles: Students record the interview on a video or cassette/audio tape. Recordings can be shared with classmates during free time or reading period. Students may be assigned to do this in small working groups.

Job shadow: Working with the community and parents, students spend time job shadowing a person in a workplace. A letter sent home to parents and community members can seek volunteers for the project. Students prepare questions to ask during their job shadow and compile their observations in a report to share with the class.

Questions to Ponder

Examples of Interview Questions

Questions for the interview:

- Tell me about your job responsibilities.
- Describe a typical working day.
- What are some of the safety concerns in your workplace?
- What types of accidents or injuries have occurred in your workplace? Why do you think they occurred?
- What should you do if an accident were to take place at your job?
- What type of safety training is involved with your job?
- What are some safety precautions and techniques that you use at your job?
- How could accidents be better prevented in your workplace?

Student Review and Reflection (after the interview):

- Why did you choose to interview this person?
- What new information did you learn about the job?
- What new information about the job surprised you?
- What were your expectations for the interview? Were they met?
- At this job, what safety issues should employees be made aware of?
- What type of safety prevention measures are taken at this job (i.e. clothing, protective equipment and devices)?

Machine Guarding - Avoiding the Bite!

Purpose

By constructing a fictitious machine, demonstrate the importance of guards on machines.

Key Concepts

- Any machine part, function or process, which may cause injury to a worker, must be safeguarded. A guard is a physical barrier that prevents access to dangerous areas of the machine as it prevents people from coming into contact with moving parts of a machine.
- A guard on a machine should be designed and constructed so that it may: not be easily tampered with or removed; not create interference with the operation of the machine; keep all human parts out of danger; and prevent equipment or tools from falling into the moving machinery.
- When applicable to the workplace, all employees should have comprehensive instruction on machine safety (e.g. proper ways of stopping and starting; use of guards; maintenance and storage; lock out and tag).

Required Materials & Equipment

Visual pictures of machine guards (optional), art materials (glue, paint, construction paper, scissors)

Plan of Action

1. **Group discussions:** In small groups, students answer the following question:

You are working with different types of machinery and equipment on the job. There is an emergency situation and you have only seconds to avoid an injury. What types of things should you know about the equipment and machinery to avoid an injury?

- Ask the groups to share their answers with others.
- Review the concepts covered under Key Concepts, the use and role of machine guards and safety tips for using machines and equipment.
- Circulate pictures of examples of machine guards **OR** tour Technology Lab where machine guards exist **OR** discuss examples of guards on everyday machines/equipment (e.g. how electrical appliances, cars and lawn mowers are created so dangerous parts/areas are not exposed).

2. **Students create:**

Using available art materials, students create a fictitious machine with the proper safe guards. In presenting their invented machines (written or oral) students discuss the following:

- A - the role of the machine;
- B - how the machine works;
- C - the dangers of the machine (i.e. moving parts) and how you have safeguarded the machine for preventing injuries.

Assessment

Student participation in creation of machine and machine guards (creativity, existence of guards, presentation and written report).

Extension

Marketing: Students develop methods for selling their new machine with the greatest selling point being its safety aspects.

Checklist: Students create a do's and don'ts checklist for machine and equipment safety.

Risky Business

Purpose

List examples of possible hazards and risks associated with various workplace settings, as well as the means of preventing injuries.

Key Concepts

- A hazard is a condition or practice which has the potential for an accident or loss; a risk is the probability or chance of an accident or loss.
- There are many types of hazards in the workplace; no two workplace environments are alike.
- Unfortunately, some workplaces are more susceptible to on-the-job violence, aggression, verbal abuse or physical assault.

Required Materials & Equipment

Copies of activity sheet, markers & paper (optional)

Plan of Action

1. **Class discussion:** Students review the definition of risks and hazards and provide examples of the types of hazards that may be found in a workplace or in daily activity.
2. **Worksheet:** Pass out copies of the worksheet (How Are They Vulnerable?) to pairs of students. Provide time for groups to complete the sheet.
3. **Create:** Students choose one of their jobs from Part B of the activity sheet and perform a short role play depicting a scene from the workplace. The skit should depict examples of hazards on the job and means by which the employees can reduce the risk of injury.
OR each pair of students creates a poster depicting the risks and hazards of a specific workplace. Students present posters to the class and peers offer additional suggestions for hazards and risks.

Assessment

Peer and teacher evaluation of worksheets and skit/posters.

Extension

Guest speaker: Invite a person who is knowledgeable about handling abuse and/or methods of dealing with the general public.

How Are They Vulnerable?

PART A: For each of the following types of work, list the hazards employees may face on the job.

For example:

Type of work	Hazards
cab driver	violent or aggressive passengers, bad weather or road conditions, robbery, late nights (lack of sleep), poorly maintained vehicle

Type of work	Hazards
1. hospital staff	
2. electrician	
3. fire fighter	
4. custodian	
5. banker	
6. letter carrier	
7. gas bar attendant	
8. retail clerk	
9. bar tender	
10. bus driver	
11. your choice	

PART B:

Choose any three of the above occupations. Using the hazards you listed, describe means by which an employee can reduce or eliminate the risk of an injury or accident on the job.

How are they vulnerable?
Teacher's copy

Type of job	Examples of Hazards
1. hospital staff	abusive or violent patients, lifting, blood born pathogens, tiredness due to long shifts may lead to unsafe decisions
2. electrician	working in elevated areas, electric shock
3. fire fighter	fire, smoke, gas, burns, falls, traffic
4. custodian	toxic cleaning solutions, improper carrying and lifting, physical labour
5. banker	abusive clients, robbery, office ergonomics (possibly on feet all day)
6. letter carrier	dogs, cars, poor side walk conditions, physical strain, weather conditions
7. gas bar attendant	robbery, abusive clients, toxic substances, late nights
8. retail clerk	robbery, abusive clients, improper lifting and carrying
9. bar tender	late nights, abusive and aggressive clients, broken glass, ergonomics of twisting and reaching
10. bus driver	poor road conditions, abusive passengers, bad weather, early mornings/late nights, traffic

Sexual Harassment in the Workplace

Purpose

Gain an understanding of what is considered sexual harassment and means of dealing with sexual harassment.

Key Concepts

- Sexual harassment can occur in any setting to any individual regardless of age, marital status, gender, physical appearance, or position in the workplace. Sexual harassment is illegal even if it is only a single incident.
- For additional information on sexual harassment in the workplace, please contact the Human Rights Commission in your area.

Required Materials & Equipment

DVD & film on sexual harassment (optional)

Plan of Action

1. **Introduction:** Show film on sexual harassment
2. **Class discussion:** Invite students to share their comments on the film. What do they know about sexual harassment? It is important to reinforce the fact that harassment can occur in any setting, to any individual and that it is a serious offence.
3. **Teacher oriented:** Invite groups to share their comments. Discuss steps for dealing with sexual harassment.
4. **Writing assignment:** Students reflect on the actions of another individual that would make them feel uncomfortable in any given setting (e.g. comments, inappropriate touching, and violent behaviour). Describe the steps they would take for dealing with the situation.

Assessment

Involvement in class and group discussion; writing assignment.

Extension

Assertiveness training: Invite trained person to discuss topic with class and help students practice being assertive.

What You Should Know About Sexual Harassment

- Examples of sexual harassment: degrading remarks about either sex; unwelcome pinching, hugging, brushing up against and patting; unwelcome sexual requests, remarks, jokes or gestures; unfair evaluations or reprimands, reduced working hours, overwork, dismissals, discipline or refusals to hire in relation to refusing to submit to sexual harassment.
- A good rule of thumb for recognising sexual harassment is to ask yourself 'how would I feel if my spouse, parent, girlfriend/boyfriend or child were to hear or see this?'
- Steps to take if you have been sexually harassed:
 1. Recognize and acknowledge sexual harassment;
 2. Clearly express your thoughts and feelings;
 3. Record all details of every incident (time, date, and witnesses, what was said or done, how it made you feel);
 4. Report all incidents to supervisor (if incident takes place on the job), to an adult you trust or to WorkSafe.
- Make it clear to the students that as a teacher you are legally responsible for reporting any abuse (physical, mental or other) that students write or talk about, even if you only suspect it.
- Violence is another form of harassment that can occur in the workplace and should not be ignored. Violence can take different forms, for example, physical abuse, threats, abusive remarks.

Slips, Trips and Falls

Purpose

Identify methods of preventing slips, trips and falls.

Key Concepts

- Slips, trips and falls can have serious consequences and can even be fatal. Unsafe acts and conditions are the causes of slips, trips and falls in the workplace and at home.
Examples of unsafe acts and conditions:
 - a) horseplay, running, climbing, overreaching;
 - b) not following safe procedures or equipment (e.g. using a box to stand and reach, unsafe use of ladders, improper lighting);
 - c) wearing improper clothing or footwear;
 - d) unsafe handling of materials (e.g. blocked vision, heavy or awkward load);
 - e) poor housekeeping (e.g. leaving spills, obstacles in path or on walkways).
- A slip occurs whenever there is too little friction or traction between your feet and the surface on which you are walking. Trips can occur whenever your foot strikes an object and your momentum causes you to be thrown off balance.

Required Materials & Equipment

Copies of worksheet

Plan of Action

1. Introduction:

- In pairs, students describe times they have slipped, tripped or fallen. What were the consequences? How could the incident have been prevented?
- Brainstorm and list common slips, trips and falls. How common are they? What can be the consequences? List the consequences from minor to major injuries (e.g. bruises } broken bones } long-term back pain } brain damage } death).

2. **Work sheet:** In pairs or individually, students complete the work sheet. Review answers as a class.

Assessment

Completion and content of worksheet.

Extension

Safe falling: Outdoors or in the gym using mats, practice safe falling techniques.

Promotional materials: Create informational material to distribute and/or display around the school on the prevention of slips, trips and falls.

Slips, Trips and Falls Worksheet

1. Why is it important to discuss slips, trips and falls?
2. Name four consequences of slips, trips and falls.
3. Describe a total of 5 unsafe acts and/or conditions that may cause a slip, trip or fall.
4. What does clothing have to do with slips, trips and falls?
5. List 10 ways to prevent slips, trips and falls.

Steps for Falling Safely

- 1) Don't stiffen your body.
- 2) Don't hold your breath (internal compression).
- 3) Tuck your head into your shoulders (avoid head or spinal injury).
- 4) Land on your hands.
- 5) As you hit, roll to a well padded area of your body (e.g. thighs, shoulder, buttock).

Survival Kit - Protection for the Workplace

Purpose

Discover various methods and resources that will help prepare a new worker to stay safe on the job.

Key Concepts

For keeping safe on the job, a worker should:

- 1) Know (e.g. receive training, aware of the hazards and safety procedures);
- 2) Have (e.g. the correct PPE, available first aid kit);
- 3) Do (e.g. work safely, follow safety procedures, and watch for hazards).

Required Materials & Equipment

Teacher resources: Flip chart/large pieces of paper, markers

Plan of Action

1. **Teacher oriented:** Review the importance of: being prepared for a new job; hazards within each and every workplace; knowledge of hazards and safety preparedness as means of protection in terms of health and safety.

2. **Brainstorm:** In small working groups, students create a list of items to include within a survival kit for a person entering the workplace for the first time. The kit can include anything they wish in terms of materials and knowledge acquired that would be important to the health and safety of a new worker.

- Encourage the groups to use their imaginations (no right or wrong answers) - the kit can be as large as they wish and include anything that may help promote health and safety and prevent injuries in any type of work setting.
- As students assemble the items in the kit, they should think of the following:
A) What is the function of each item in regards to the health and safety of the new worker?
B) Are some items more important than others? Groups may wish to number the items in order of importance.

3. **Create:** Using art materials, students draw and display all the items included within their survival kit on a large piece of paper. Encourage groups to design an ad campaign to sell their products, keeping in mind appearance, cost and motivation to buy. Groups present their survival kit to the rest of the class.

Assessment

Contents of list; involvement with group work and creation of survival kit.

Extension

Writing assignment: Students choose a job/career of interest and list what they believe to be the five most important items and the rationale for including such items/knowledge within the survival kit.

Survival Kit

Materials: large pieces of paper, markers

Plan of Action

Your group is responsible for creating a workplace SURVIVAL KIT for people who are entering the workplace for the first time. The kit can include anything you believe to be necessary and important for keeping safe on the job.

- ♦ **Use your imagination** - the kit can be as large as you want and include anything that may help prevent accidents in any type of workplace.
- ♦ Use the materials provided to display all the contents of the SURVIVAL KIT.

Other things to think about:

- 1 - Selling the product - how to entice people to buy the SURVIVAL KIT.
- 2 - How much would you sell it for?
- 3 - Where would you sell it?

Too Many RSIs!

Purpose

Define repetitive strain injuries (RSI) and list means of preventing RSI.

Key Concepts

- A repetitive strain injury (RSI) is an injury that develops gradually over time as a result of repeated wear and tear of muscles, tendons, ligaments, and other soft tissues. Symptoms of RSI include pain, tenderness, swelling, weakness and numbness. RSI most commonly occur in the arms, shoulders, hand, neck, back, legs and feet.
- Many RSI injuries are the result of repetitive work activity, i.e. an activity that requires the use of the same muscles over and over again. These injuries usually develop over time and, in many cases, people who suffer from RSI will never fully recover.
- Some causes of RSI or soft tissue injuries (i.e. injuries to muscles, tendons, ligaments, and connective tissue) are a result of a worker who: applies pressure on body parts; overloads particular muscle groups; maintains a fixed position; performs repetitive movements; uses forceful movements; or works with speed and repetitions.

Required Materials & Equipment

N/A

Plan of Action

1. Experiment:

- Ask students to repeatedly perform the same movement (e.g. bending, reaching, twisting) for a period of five minutes, and then ask them how they feel. Discuss how they would feel if they had to perform that movement all day for several days in a row. Discuss what effects might this have on the body over time.
- Invite students to share common complaints they have heard from family members or friends about aches and pains (e.g. sore back, shoulder etc.). Was this soreness work-related?

2. Define:

- Provide the class with the definition of RSI and the causes of RSI.
- Brainstorm as a class methods of preventing RSI (e.g. stretching, varying movements or tasks).

3. Self evaluation:

- Over a period of a week, students review activities and movements they take part in that may have the potential for causing an RSI. Explain that answering yes to either of the following two questions may be an indication that the stage is being set for a RSI.
 - 1) Does the job and/or activity require a lot of lifting, pushing, pulling or carrying?
 - 2) Does the job and/or activity require working in awkward postures (e.g. arms above head or with a bent back)?

Students write a report that includes:

- A) a definition of RSI in their own words;
- B) a description of activities and movements they take part in that may potentially cause an RSI;
- C) methods of preventing an RSI when engaging in such activities/movements.

Assessment

Students hand in report for evaluation.

Extension

Daily stretching: Incorporate periodic two-minute stretching exercise sessions throughout the school day with students.

Guest speaker: Invite ergonomist, physiotherapist or WorkSafe staff member to discuss RSI and prevention with the class.

Training Manual for the New Worker

Purpose

Provide examples of information to be included in a safety training manual for employees.

Key Concepts

All employees have the right to know how to perform a job safely, and to be provided with proper training.

Required Materials & Equipment

Access to resources (re: jobs/careers), construction paper, markers, glue & scissors

Plan of Action

1. Review & discuss: As a class, discuss the employer's responsibility to provide proper training for job safety as part of an employee's right to know. Brainstorm, individually or as a class, the components that should be included within a 'new employee' training manual.

2. Research:

- Individually or in pairs, students select a workplace they find interesting.
- Students brainstorm and research the hazards within their chosen workplace.
- Students create a list of the health and safety components which they believe should be included within the training manual for new employees entering the workplace.

3. Students create: From their research, students create a 'new employee' training handbook/manual. Using art materials, students create a colourful handbook containing the important health and safety information for new employees. The information should include everything the employee needs to know to perform his/her new job safely.

- The objective of this exercise is not to list all items to be included within a safety training manual, but rather that students appreciate the fact that there are important things one should know before starting a new job.
- Encourage students to be creative in the design and layout of their training manual/handbook. Construction paper and markers can be used for illustrations and making the cover of the manual.

Assessment

Content and effort of created training manual handed in for evaluation.

Training Manual for the New Worker

The following are examples of items that can be included in a health and safety training manual for new employees.

- ◆ All procedures to do the job safely ~ rules & policies, workplace-specific training.
- ◆ Instructions on using all machines and equipment properly ~ machine guarding, lock-out & tag, maintenance, starting and stopping machines/equipment.
- ◆ Emergency procedures ~ what to do in case of emergency, who to contact, location of fire exits, first aid kits, fire extinguishers, reporting an injury or incident (how and to whom).
- ◆ Existing hazards within the workplace ~ how to reduce and control the risks and hazards.
- ◆ Handling materials ~ proper storage & disposal, location of safety data sheets (SDS).
- ◆ Personal protective equipment ~ what is needed and when.
- ◆ Who can help ~ answer questions and/or who to report to regarding health and safety issues in the workplace.
- ◆ Maintaining proper housekeeping in workplace.

Watch your 'Back'

Purpose

Demonstrate an understanding of the measures that can be taken to prevent the occurrence of back-related injuries.

Key Concepts

- Many people suffer from back injuries and pain as a result of improper techniques during work and leisure activities (e.g. moving furniture, lifting heavy objects without help). Obesity, physical stress, lack of exercise and poor posture are examples of sources of back pain. Most back injuries result from improper lifting.
- Steps to lifting properly: 1) have firm footing before lifting; 2) bend at the knees; 3) use stomach muscles; 4) lift with the legs; 5) keep the load close to the body; 6) keep the back straight.
- A healthy back that is properly aligned has three natural curves: the cervical, thoracic and lumbar curves.

Required Materials & Equipment

N/A

Plan of Action

1. Teacher oriented:

- Demonstrate and review proper lifting techniques, the importance of good posture and daily activity in the maintenance of a healthy back.
- Students practice proper lifting techniques.

2. Brainstorm & problem solve:

- In small working groups, students discuss and list activities (at work, home and during leisure time) that place stress on the back.
- Students discuss and list examples of safer ways to perform these activities so as to avoid back injury and/or pain.

3. **Presentation:** Groups present their work to the class in the form of an educational TV or radio commercial, song, cartoon or limerick related to the maintenance of a healthy back **OR** groups take part in activity Watch your 'Back'

4. **Setting 'back' goals:** Students reflect on how their lives would be affected should they suffer a back injury today. For example, no sports, dancing or carrying books; difficulty driving, reduced employment options. Students set personal goals for keeping a healthy back (e.g. good posture, lifting properly, exercising, asking for help when lifting, etc.). Review goals periodically.

Assessment

Teacher, peer and self evaluation of back injury prevention techniques and presentation; effort in setting personal goals for a healthy back.

Extension

Guest speaker: Invite one of the following people to speak to the class about back health: a doctor; someone suffering from a bad back; a personal trainer from a local health club.

Watch your 'Back'

Plan of Action

Many people suffer from back-related problems (e.g. sore or "bad" back). Discuss examples of how your life would be affected should you suffer a back injury today. For example, no sports, no dancing, no carrying school books.

1. List:

- As a group, describe all the activities in which people participate every day (i.e. at school, work, home) that place stress on the back and/or can potentially hurt your back.
- Review proper lifting techniques found on the next page.

2. Presentation:

- You have been hired by a hospital to help teach people how to keep their backs free from injury. You can choose to do this in the form of a TV or radio commercial, cartoon, poster **OR** your group can come up with its own presentation idea.
- **Remember - you want to get your message across about keeping a healthy back by working and playing safely!**

3. Goals:

- Each group member sets personal goals for keeping their back free from injury.

Back Safety

- Many people suffer from back injuries and pain as a result of improper body mechanics used in work and leisure activities. Obesity, physical stress, lack of exercise and poor posture can be sources of back pain.
- Things to keep in mind when lifting:
 - 1) objects should be located so that you do not have to reach over your head;
 - 2) work areas should have enough space so that you do not have to twist your body when you lift or put down a load;
 - 3) a fast pace and/or frequent lifting is more likely to cause injury;
 - 4) very heavy boxes should have warning signs on them (e.g. caution - heavy box);
 - 5) ask for help with awkward shaped objects/boxes;
 - 6) do not be afraid to ask for help when lifting heavy objects;
 - 7) request lifting training techniques when needed.
- Steps to lifting properly:
 - 1) have firm footing before lifting;
 - 2) bend at the knees;
 - 3) use stomach muscles;
 - 4) lift with the legs;
 - 5) keep the load close to the body;
 - 6) keep the back straight.

A regular stretching and strengthening program, as well as an active lifestyle, can go a long way to maintaining a healthy back. You should be conscious about how you use your back during all your daily activities.

What Does a Safe Environment Look Like?

Purpose

Gain an understanding of the qualities and rationale for a safe working environment, be it the classroom, school, home or workplace.

Key Concepts

Qualities to observe in determining a safe working environment.

Required Materials & Equipment

Paper, pencil, ruler, markers

Plan of Action

1. Brainstorm:

- Students create a chart with two columns. In one column, students list all the qualities of a safe working environment (be it the school, class, home or workplace).
- In the second column, students list the rationale and role of each of the listed safety qualities in creating a safe and healthy work environment.
- Charts can be created for working in specific areas of the school, for example, science lab, technology lab or gymnasium

2. Writing assignment: Students reflect on the following questions:

- A) What makes you feel safe in your workplace?
- B) What makes you feel unsafe in your workplace? (be it the school, home or at your job).

Assessment

Effort and content of chart, writing assignment.

What Does a Safe Environment Look Like?

The following are examples of qualities to look for in determining a safe working environment. The possibilities are endless although they may vary depending on the work environment.

- ◆ Air quality - control of dust, gases, temperature, humidity, and by using proper ventilation.
- ◆ Building & structure - condition of windows, doors, floors, exits, aisles, ramps, guard-rails, garbage removal & storage, roof, walls.
- ◆ Fire prevention - smoke alarms, sprinkler system, fire exits well-marked with lighted signs, fire exits unobstructed, fire extinguishers exist and are checked monthly.
- ◆ Furniture - good condition, no sharp edges, appropriate, proper storage space.
- ◆ Emergency procedures - signs & procedures posted, emergency lighting, employees aware of procedures.
- ◆ First aid kits - exist, available and maintained.
- ◆ Walking and work areas - clean, good repair, non-slip carpets.
- ◆ Hazardous supplies & materials - proper storage, proper labelling, availability of SDS.
- ◆ Personal protective equipment - provided, enforced, proper type.
- ◆ Guards on all moving parts of machines.
- ◆ Housekeeping - cleanliness in all areas.
- ◆ Environmental conditions

- ◆ Proper training provided - to new and transferred employees, general & job specific health and safety, PPE use and maintenance.
- ◆ Proper position of light and intensity.
- ◆ Eye wash stations - clean, operating, regular testing.
- ◆ Ladders and climbing devices - properly stored, good condition, extreme caution around electrical wiring and devices.

Qualities of a Safe Work Environment

Qualities of a safe work environment	Role in protecting your health & safety
e.g. keep floors clean and free from obstacles	to avoid slips, trips or falls

Working in High Places

Purpose

Summarize important safety tips when working on elevated surfaces.

Key Concepts

- There are a number of safety tips to keep in mind when working on elevated work surfaces. Use of ladders, scaffolding, and scissor lifts are examples of elevated work surfaces that require safety measures to prevent falls and injuries.
- Falling even from a short distance can be serious. Many people have been fatally injured in falls of less than three metres.

Required Materials & Equipment

Ladder (optional), paper & pencils

Plan of Action

1. **Demonstration:** (optional)

- Outdoors or in gymnasium, demonstrate the proper way to set up, climb and disassemble a ladder.

2. **Discussion:**

- Define elevated surfaces (e.g. climbing a ladder, standing at the top of stairs, climbing on a piece of furniture). List the different methods or tools that we use to perform activities in elevated areas (e.g. ladder, stool, scaffold etc.).
- Ask students to share stories of injuries that have resulted from falling from an elevated surface.
- Problem solve the cause and effect of each of the falls. (Be sure to have a few examples on hand in case students don't have any of their own).

3. **Evaluation:**

- Over a period of a few days, students evaluate their own personal activities and those of friends and family members that could cause a fall from an elevated surface. Students then make recommendations for safer ways of working and/or being in such elevated areas. Students also take note of activities that were done safely while on elevated surfaces.
- Students present their recommendations to the class.

Assessment

Pass in fall prevention recommendations for evaluation.

Extension

Guest speaker/tour: Demonstrate the proper use of fall arrest and various fall arrest PPE; invite a person involved in an accident related to an elevated work surface to share their experiences. Visit a climbing wall in a local gymnasium to observe the use of fall arrest devices.

Safety Tips for Working on Elevated Work Surfaces

Ladders

- Make sure the ladder is fully open and the spreaders are locked.
- Don't climb, stand or sit on the top two rungs of the ladder.
- Have someone help you adjust the height of an extension ladder.
- Be sure to secure an extension ladder firmly before extending it.
- Use the right angle or pitch for the ladder. The distance from the foot of the ladder to the base of what it is leaning against should be about one fourth of the distance from the ladder's top support to its bottom support.
- Set up the extension ladder with approximately one metre extending above the working surface.
- Make sure the ladder is firm and level on the surface.
- Use both hands for climbing.
- Avoid setting up a ladder in a walkway. If unavoidable, set up markers to warn others of the ladder.
- Instead of stretching to reach something, move the ladder.
- Tie off the ladder to a secure object at chest level height. With longer ladders, tie off the top of the ladder as well.
- Use wooden or fibreglass ladders if doing electrical work where contact with electrical circuits could occur.
- Don't use a ladder that is damaged (i.e. broken or missing steps or rungs, rust or weakness, dents).

Scaffolds

- Scaffolds are elevated platforms that can be moved to reach a desired work level or position. Scaffolds are a daily part of some workplaces (e.g. window cleaning).
- Inspect the scaffold platform for any damage or weakness.
- Check the lines on the scaffold for any fraying, damage or loose connections. Don't try to repair defective lines.
- Be sure the scaffold can handle your weight, plus the weight of any equipment you require.
- Don't use the scaffold if winds are over 50kph and/or use a scaffold that is made to take wind loads.
- Position the scaffold as close to the surface you will be working on as possible.
- The scaffold should be at least 3 metres from energized lines.

- Keep the platform tidy and free from spills.
- Use guard-rails and personal fall arrest system (e.g. body belt or harness).
- Be sure the scaffold is stable; the more people on it, the less stable it becomes.

Scissor lift

- Make sure the work platform meets required standards.
- Read and understand the operator's manual.
- Use all available protective and safety devices (guard-rails, body belts or harness, hard hat).
- Check tires for proper air pressure.
- Check the ground/floor areas for holes and obstructions.
- Maintain safe clearance from overhead electrical lines.
- Never climb on guard-rails to gain greater height.
- Never use ladders, planks, steps or other devices on the platform to gain greater height. Don't overload the platform.
- Set the brakes or chock the wheels to prevent unintended movement.

Personal fall protection: body belts & harnesses

- Body belts and harness are used to help keep workers from falling long distances.
- Be sure to check that there is no damage or wear on the belt or harness. The metal hardware should be free from corrosion.
- All clips should fasten securely. The belt or harness should be the appropriate size.
- Make sure the anchorage is strong enough to withstand the force of a fall.
- When selecting your anchor, be sure to allow for the free-fall distance. A shorter free-fall reduces the chance of falling into obstacles and being injured by fall-arrest force.

Working Through Stress

Purpose

Become familiar with the effects of stress on the job or during daily activities and identify methods of dealing with stress.

Key Concepts

- **Definition of stress:** constraining force; physical, mental, or emotional pressure or strain; a state or condition resulting from such pressure or strain.
- Every day, we deal with stress in our lives. Stress affects people differently. The secret to alleviating stress is knowing yourself and understanding how your body responds to stressful situations. It is important to recognize the symptoms of stress. Another key is to determine the means of reducing, dealing with and/or avoiding the stress (or the negative effects of stress on your well-being). Effective stress management has to do with trying your best to enjoy life and keeping a positive attitude about the challenges that come your way. Some stress-survival skills include: pacing your activities, switching tasks, getting enough rest, eating properly and exercising.

Required Materials & Equipment

Film on stress, TV & DVD (optional), large pieces of paper (optional), markers (optional)

Plan of Action

1. Discussion: In pairs, students answer the question sheet on stress, Questions to Ponder ~ Stress & You! Review the answers as a class. Discuss and list stress reducers.

2. Assignment: Each student divides a page into two columns. In the first column, they list events or activities they believe cause (present) or would cause them (future) stress. In the second column, students list stress reducers and/or choices they can make to reduce, alleviate or deal with the stress.

3. Stress busters: Students invent a fictitious product/service that would alleviate stress. They then create a promotional campaign advertising the product/service, explaining how it works, the target audience, and where the product or service is available (fictitious). For example, 'Stress Buster' centres for young people where they can go and listen to soothing music, watch stress-free TV, talk to friends etc.

(Note: A stress buster for one person may be a stress inducer for another, i.e. there is no single remedy. Nonetheless, the activity is meant to be fun!).

Assessment

Question sheet completed; effort and content of chart; participation in stress buster product/service.

Extension

Interview: Students interview a parent/adult using the questions found in Questions to Ponder ~ Stress & You. Students compare their answers to the answers of the adult and reflect on the following questions:

- 1) How does your stress differ from the stress of the parent/adult you interviewed?
- 2) What is the major source of the adult's stress?
- 3) What type of stress exists at their workplace?
- 4) How do they alleviate or deal with the stress?

Students summarize the results of their comparison in a short report.

Guest speaker: Invite a guest speaker to talk about the effects of stress on our health (e.g. guidance counsellor, psychiatrist, nurse etc.).

Stress breaks: Start to include stress/health breaks in the daily routine of school and home. Have a specific time of day when everyone takes a few minutes to stretch, listen to relaxing music or tell a joke etc.

Questions to Ponder ~ Stress & You!

1. In your own words, define stress.
2. What do you think stress looks like and sounds like?
3. What types of stress exist in your daily life? How do you think such stress will change as you get older?
4. What types of stress exist at school? Provide a number of examples.
5. What types of stress might exist in the workplace?
6. How do you think stress might affect the workplace and people's job performance?
7. What does stress have to do with one's personal health and safety?
8. How might stress affect your daily choices and decisions?
9. What are methods of dealing with stress (i.e. stress reducers)?
10. What advice would you give someone who is very stressed?

Stressed Out!

Materials: copy of question sheet, pencil, large pieces of paper, markers

Plan of Action

1. Together as a group, answer the questions on the following page, 'All Stressed Out! Questions to Ponder'.
2. Your group is responsible for inventing fictitious products that would help people reduce the negative effects of stress in their lives.
 - ◆ Use the materials provided to create posters to advertise your products, explaining how they work, who they are designed for and how they reduce the negative effects of stress.
 - ◆ Create as many stress reducing products as you wish.

All Stressed Out! Questions to Ponder

As a group, discuss the following questions. Designate one group member to record your answers. (Please note, there are no incorrect answers!)

1. What is stress? Is all stress bad?

2. What kinds of stress exist in your life? How do you think such stress will change as you get older?

3. What does stress have to do with your health and safety?

4. What are methods of dealing with stress (i.e. stress reducers)? Are some better than others?

5. What advice would you give someone who is very stressed?