

Workplace Safety



Safety and the Young Worker

INSTRUCTOR'S MANUAL



WORKERS' COMPENSATION BOARD
Northwest Territories and Nunavut

Acknowledgements

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Photo Information

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Welcome

Welcome to the *Workplace Safety: Safety and the Young Worker*. This program has been developed by the Northwest Territories and Nunavut Workers' Compensation Board for use in schools. The program aims to develop skills in recognizing and managing hazards in the workplace. The target audience of this resource is young workers as they enter the work force.

Each community in the NWT and Nunavut offers unique employment opportunities to young workers. The content of the lessons is general and the skills acquired by the students should be applicable to many job situations. Students need to become aware of the possible hazards associated with each unique work environment in order to avoid workplace injuries.

The four main goals in the Workplace Safety Program are:

1. To make the young worker understand that the chance of an accident happening to them is high
2. To help the student be aware of common workplace injuries
3. To teach students how to recognize hazards that may cause injuries
4. To assist the student in understanding methods of prevention of injury and death

The program consists of three main components:

1. **Instructor's Manual** to assist in delivery of the program. The following information is provided for each lesson:
 - Overview of Lesson – what the student will learn
 - Materials Required – what you need in order to assist with the lesson
 - Overheads Provided – a listing of available overheads which can be found in the appendix of the document

- Basic Review Questions – which can be used for summation of the activity
- Branching Out (Extensions and Variations) – ideas for extending the learning activities

2. Student Self-paced Manual

- easy to read format
- main objectives for each lesson are identified up front
- quick quiz format (true/false and multiple choice) to check for understanding
- key words and phrases in bold text
- blue words can be found in glossary at back of document
- additional information (videos, articles) identified at end of each lesson for further exploration

3. Student Interactive CD Rom

- easy to read format
- main objectives for each lesson are identified up front
- quick quiz format (true/false and multiple choice) to check for understanding; incorrect responses receive a prompt to appropriate text reference
- key words and phrases in bold text
- blue words can be double clicked for access to glossary
- video and audio buttons can be double clicked for access to short audio and video clips
- additional information (videos, articles) identified at end of each lesson for further exploration

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An Introduction to Workplace Safety: Safety and the Young Worker – Lesson 1

Overview of Lesson

In this lesson students are introduced to the concept of a young worker (anyone under the age of 25), hazards (any danger or risk) and the leading causes of workplace injuries and death (electrocutions and injuries involving machines). Students view and glean information from two charts: one related to injuries to young workers, and the other to time loss injuries to young workers. Students learn that many accidents and incidents are not reported because supervisors, employers and young workers are unaware of proper reporting procedures. Students also examine an “incident pyramid” which illustrates the number of accidents and incidents that take place for every death which occurs (600 incidences for every death). The video “*Safety and the Young Worker*” can be used to introduce or to reinforce concepts covered in this lesson.

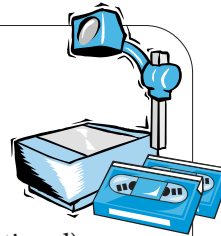
Materials Required:

Overheads: 1a - 1g

(listed separately and found in appendix)

Video: Safety and the Young Worker

Story: “The Week Time Stood Still” by Patricia Mason (optional)



Overheads Provided:

1a – Goals of the Workplace Safety Program

1b – Incidents

1c – Basic Facts on Accidents

1d – Causes of Incidences

1e – Chart Showing All Injuries to Young Workers

1f – Chart Showing Time Loss Injuries

1g – Incident Pyramid

Branching Out

1. Read aloud to the class, or have them read silently, “*The Week Time Stood Still*” by Patricia Mason. The story is long and covers a number of days after an accident that took the life of a young oil drill worker. After each section, stop and ask questions.



Basic Review Questions?

1. Define:
 - a) young worker
 - b) incident
 - c) hazard
 - d) time loss
2. From the table on time loss:
 - a) What is the most reported injury?
 - b) What is the second most reported injury?
 - c) How many of the above two injuries be prevented?
3. What is the leading cause of death among young workers in Canada?
4. Why are 15-24 year olds most likely to be injured on the job?
5. Identify some physical hazards in your school environment.



Laws in the NWT and Nunavut

– Lesson 2

Basic Review Questions

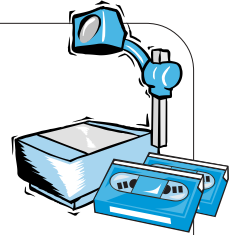
1. Name a law that applies all across Canada.
2. What are the three basic rights workers have to protect their health and safety?
3. If you are uncertain as to which labour laws govern your work site, what should you do?
4. What is the purpose of the NWT and Nunavut *Safety Act* and the NWT and Nunavut *Health and Safety Act*?
5. Whose responsibility is it to ensure that the standards of various *Safety Acts* are met?
6. What are regulations? How are they different from an Act?
7. If you think that work is unsafe and your supervisor does not agree, what should you do?
8. If you feel that your union representative and site manager are wrong when they decide a situation is safe, what should you do?

Overview of Lesson

In this lesson, students gain an understanding of laws and regulations which protect them in the workplace. Although laws and regulations across Canada are similar, they can differ from one jurisdiction to another. The main NWT and Nunavut laws are the NWT and Nunavut *Safety Acts* and the NWT and Nunavut *Mine Health and Safety Acts*. Canada-wide, students should be aware of the Workplace Hazardous Materials Information System (WHMIS) law as well as the *Labour Standards Acts*, both which will be covered in greater detail in future lessons in this course. Students are made aware of their three basic rights to protect their health and safety when exposed to hazardous materials, including their right to refuse work that is unsafe.

Materials Required:

Overheads: 2a - 2b
(listed separately and found in appendix)
Video: Safety and the Young Worker
(if not already viewed after Lesson 1)

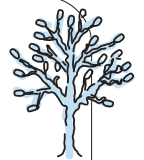


Overheads Provided:

2a – Your Three Rights to Know
2b – Flow Chart on the Right to Refuse Work

Branching Out

1. Obtain copies of the NWT and Nunavut *Safety Act* and the NWT and Nunavut *Health and Safety Act*. Locate the section of the Acts that would apply to the following:
 - duty of employer or owner or worker
 - the right to refuse unsafe work
 - offense and penalty of an employer or of a worker
 - working in a noisy area (regulations)
 - eye protection and contact lens restrictions (regulations)
 - working in a confined space (regulations)
2. For more information, refer to the WCB web sites: www.wcb.nt.ca or www.wcbnunavut.ca or the CD Rom: *Occupational Health and Safety for Everyone (Northwest Territories and Nunavut)*.



Health and Safety Hazards

– Lesson 3



Overview of Lesson

In this lesson, students learn about the four main types of health and safety hazards :

1. Chemical: inhalation, ingestion, absorption, injection
2. Physical: machinery, electricity, vibration, noise, temperature
3. Biological: bacteria, fungi, viruses
4. Ergonomic: tools, equipment, lighting, temperature, noise, movement of workers

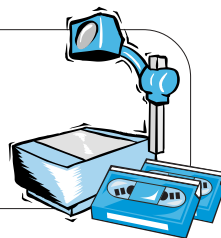
Examples for each type of hazard are discussed along with ways to reduce your risk of hazard. It is suggested that teachers and students develop a “semantic map” using the above information as one way of piecing all the information together. Begin by creating a central image on the board or page. Illustrate the concept (Health and Safety Hazards) by means of a word, a symbol or an image. Brainstorm main ideas associated with the topic and add them by means of words, symbols or images. Connect ideas by drawing lines, branches, spokes, roads, etc. Use any image as long as it promotes the idea of “connection”. When all major ideas have been articulated, use colours, images, words, names of songs and symbols to go back and flesh out the details around each main idea.

Tips for Creating Semantic Maps: Use as many different colours as you can. Use white space as well. Tape on additional sheets of paper if needed to expand your mind map. Try to think of symbols or images that can replace words. Create a metaphor for your overall image, e.g. A cloud (central idea) with thunderbolts (main ideas) and raindrops (details).

An optional video entitled “*It Didn’t Have To Happen*” can also be used to reinforce the need for safety training and awareness.

Materials Required:

- Video: It Didn’t Have to Happen
- Video: Silly Little Risks: Talking to Teens (optional)



Branching Out

1. In small groups, identify potential hazards in your school environment according to the four basic types of health and safety hazards.
2. Discuss ways in which to improve the ergonomics within the classroom environment.



Basic Review Questions?

1. Define: inhalation, ingestion, absorption, noise, biological agents, ergonomics, WHMIS, lock out.
2. What are the four main types of health and safety hazards? Explain what each type is.
3. Whose responsibility is it to identify and correct hazards on the work site?
4. What are the three ways in which chemicals can enter your body? How can each be prevented?
5. What happens if a worker is exposed to noise over a period of time?
6. What are some work sites where biological hazards are more likely to be found?
7. List five ergonomic hazards.
8. How can ergonomic hazards be removed?

WHMIS: An Introduction

– Lesson 4

Basic Review Questions

1. What should have been done on the work site to prevent the 19-year-old worker from losing his life?
2. What is WHMIS?
3. What does WHMIS require suppliers, employers and workers to do?
4. How do WHMIS laws differ across Canada?
5. Identify different ways in which hazardous materials can pose a danger (e.g. explosion, fire, skin contact, inhalation, ingestion).
6. What factors help determine how bad a hazard is likely to be?
(Examples: how easily it burns, how much there is, how toxic it is, how it enters the body, how concentrated it is.)

Overview of Lesson

In this lesson, students learn the basics of Workplace Hazardous Materials Information System (WHMIS).

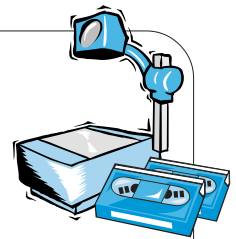
Lessons 5 to 7 will look at WHMIS in greater detail:

- Lesson 5 – WHMIS Responsibilities and Labels
- Lesson 6 – WHMIS Product Classification and Symbols
- Lesson 7 – WHMIS MSDS and Control of Hazardous Materials

Lesson 4 explores how WHMIS was developed (joint committees of employers, unions and governments) and why it is needed to let us know what materials are dangerous, and how we can protect ourselves when we handle them. The three main parts of WHMIS are introduced – symbols/labels, Material Safety Data Sheets (MSDS), and worker education. Finally, students learn that they have the responsibility to recognize symbols/labels, check for hazards, and follow recommended procedures.

Materials Required:

Overheads: 4a - 4d
(listed separately and found in appendix)
Video: It's A Hazardous World

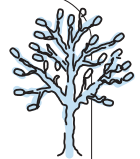


Overheads Provided:

4a – WHMIS
4b – WHMIS is Law
4c – Three Main Parts of WHMIS
4d – WHMIS Responsibilities (for workers)

Branching Out

1. Have students form small groups to discuss the video.
2. Explore the WCB web site (www.wcb.nt.ca or www.wcbnunavut.ca) and look up WHMIS and other safety related legislation.



*“A label read could save a life,
and prevent a lot of pain and strife.”*

WHMIS: Responsibilities and Labels

– Lesson 5

Overview of Lesson

Lessons 5 to 7 will look at WHMIS in greater detail:

- Lesson 5 – WHMIS Responsibilities and Labels
- Lesson 6 – WHMIS Product Classification and Symbols
- Lesson 7 – WHMIS MSDS and Control of Hazardous Materials

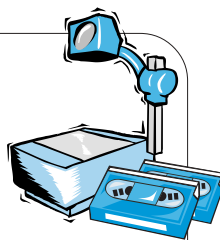
Lesson 5 explores the responsibilities of the three parties (employer, worker, supplier) with regards to WHMIS and labelling. Supplier labels (includes seven pieces of information in most cases), workplace labels (includes three pieces of information) and other means of identification (colour coding, number systems, signs and/or ID tags) are examined in greater detail.

Materials Required:

Overheads: 5a - 5k
(listed separately and found in appendix)

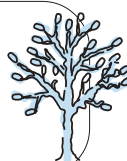
Overheads Provided:

- 5a – WHMIS Responsibilities
- 5b – Types of Labels
- 5c – WHMIS Labels
- 5d – Supplier Label (less than 100 ml)
- 5e – Supplier Label (more than 100 ml)
- 5f – Reasons for a Workplace Label
- 5g – Workplace Label Information
- 5h – Example Workplace Label
- 5i – Other Means of Identification
- 5j – Acceptable Format for a Supplier Label



Branching Out

1. Examine various supplier labels for common household or school related hazardous materials.



“To use chemicals safely, you need to know what makes them dangerous.”

Basic Review Questions?

1. Who are the three main WHMIS participants?
2. What are the main responsibilities of each party in terms of WHMIS?
3. What is the difference between a supplier label and a workplace label?
4. What is the difference between a risk phrase and precautionary measures?
5. How does WHMIS deal with the problems associated with small containers of hazardous materials?

WHMIS: Product Classification and Hazard Symbols

– Lesson 6

Overview of Lesson

Lessons 5 to 7 look at WHMIS in greater detail:

- Lesson 5 – WHMIS Responsibilities and Labels
- Lesson 6 – WHMIS Product Classification and Symbols
- Lesson 7 – WHMIS MSDS and Control of Hazardous Materials

Lesson 6 looks at the six classes of hazardous materials and the eight symbols used to identify hazardous materials. These classes are lettered A through F. Class D: poisonous and infectious materials, has three divisions for different types of poisons. Each of these divisions has a symbol. Class B: flammable and combustible materials, is divided into six divisions. However, Class B does not have symbols for each of its divisions. Students learn to recognize each symbol, explain what the symbol means and provide examples for each symbol. An activity on common materials and their classifications illustrates to students how common hazardous materials are in our environment. The video “*The Winning Label*” is an excellent introduction (or review) of the concepts being covered.

Basic Review Questions

1. What are the six classes of hazardous materials?
2. Which class of hazardous materials has more than one symbol?
3. What are four ways in which hazardous materials could contaminate you?
4. What is a flashpoint?

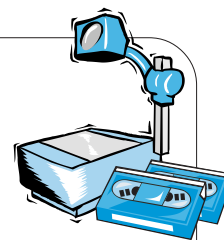
Materials Required:

Overheads: 6a - 6j

(listed separately and found in appendix)

Video: *The Winning Label*

Video: Part 2 of *Steering Clear of Hazardous Materials* (optional)



Overheads Provided:

6a – Symbols

6b – Controlled Products

6c – Compressed Gas

6d – Flammable and
Combustible Material

6e – Oxidizing Material

6f – Poisonous Material

6g – Toxic Material

6h – Biohazardous Material

6i – Corrosive Material

6j – Dangerously Reactive
Material

Branching Out

1. Research the *Hazardous Products Act* to identify the three types of hazardous products (e.g. prohibited, restricted and controlled products).
2. Identify potentially hazardous substances at home and school and classify them according to the six classes of hazardous materials.

WHMIS: MSDS and Control of Hazardous Materials

– Lesson 7

Overview of Lesson

Lessons 5 to 7 look at WHMIS in greater detail:

- Lesson 5 – WHMIS Responsibilities and Labels
- Lesson 6 – WHMIS Product Classification and Symbols
- Lesson 7 – WHMIS MSDS and Control of Hazardous Materials

In Lesson 7, students learn that there are nine parts to a Materials Safety Data Sheet (MSDS):

1. Product identification and use
2. Hazardous ingredients
3. Physical data
4. Fire and explosion data
5. Reactivity data
6. Toxicological properties
7. Preventative measures
8. First aid measures
9. Preparation information

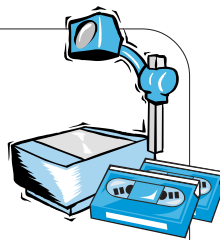
Some exemptions exist related to trade secrets or where the product falls under other legislation. Students also learn that hazardous materials that enter the body can have either acute or chronic effects. There are also three ways to control hazardous materials – at the source, in the pathway, or at the worker level. As previously learned, students have three basic rights – the right to know, the right to participate and the right to refuse work.

Materials Required:

Overhead: 7a - 7e
(listed separately and found in appendix)
MSDS for Propane and Gasoline

Overheads Provided:

7a – Right to Refuse
7b/7c – MSDS Propane
7d/7e/7f/7g – MSDS Gasoline



Branching Out

1. Use the 11 reminder safety questions for all workers to review the MSDS information for a specific hazardous substance such as gasoline or propane.



Basic Review Questions?

1. How many sections must be provided on a MSDS?
2. What is the title of the section of the MSDS that lists the hazardous ingredients of the product?
3. Which section of the MSDS lists the protective measures you can take to avoid harmful contact with the product?
4. How often must a MSDS be updated?
5. Name four ways that chemicals can enter your body.
6. What are the two effects that hazardous materials may have on your body? Explain what each type is.
7. What is sensitization?
8. What is a control measure?
9. What are the three methods of controlling hazardous material?



Handling, Carrying and Lifting

– Lesson 8

Basic Review Questions

1. Define manual handling.
2. List three types of manual handling.
3. List three types of manual handling injuries.
4. Before you lift an object, what should you check for or consider?
5. What are the steps for lifting?
6. Finish the following sentence:
The more you (*bend your knees*), the less you use your back.
7. In team lifting there are two critical steps. These are?

Overview of Lesson

In this lesson, students learn the three things they should consider before moving any objects: nature of the load, e.g. sharp edges or chemical hazard; working conditions, e.g. light and temperature; and personal limitations, e.g. age and strength.

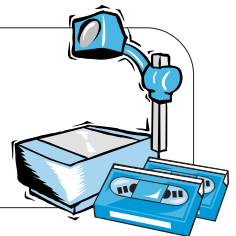
They also learn six important questions they should ask themselves:

1. Must the load be moved?
2. Must the load be lifted?
3. Can the load be moved using equipment?
4. Can the load be reduced?
5. Is it better to use more than one person to lift?
6. Is the load too heavy for a team to lift safely?

Students also explore the steps used to properly lift an object and avoid the most common work related injury – back injury.

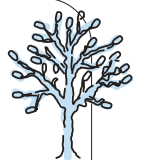
Materials Required:

Video: Dealing with Manual Handling
(Safety Care Series) (optional)



Branching Out

1. Create a series of posters for each of the steps involved in lifting an object.
2. Develop and make short video clips on proper and improper lifting techniques. Be sure to use empty (light) boxes to avoid actual injuries.



*“Carrying boxes
stacked up to your nose
can cause you and your company
safety woes.”*

Noise – Lesson 9

Overview of Lesson

In this lesson students learn ways to reduce noise hazards:

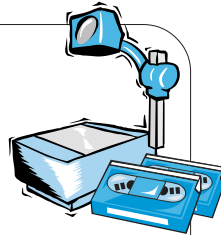
- At the source – redesigning the equipment to reduce noise or using another type of equipment.
- In the pathway – sound barriers, enclosing the noisy equipment, or rotating the workers from the noisy areas.
- Control at the worker level: There are many different types of personal protective equipment that you can wear to protect your hearing. When choosing the protection you will use, make sure that the equipment is comfortable and fits with any other equipment that is necessary on the job. Hearing protectors include earmuffs that fit over the ears and inserts that fit into the ears. Some inserts are disposable and can fit anyone’s ears while other inserts must be fitted to the user’s ears.

Materials Required:

Overheads: 9a - 9d
(listed separately and found in appendix)
Video: Walkman Generation (optional)

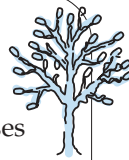
Overheads Provided:

9a – Decibel Chart
9b – Hearing Protection
9c – Diagram of Ear



Branching Out

1. Create a poster in a time-line/continuum format that shows various levels of noise (decibels) associated with common noises or equipment.



Basic Review Questions?

Questions on noise in the workplace.

1. What is the difference between permanent and temporary hearing loss?
2. What are the early signs of hearing loss?
3. What is really happening when people “get used to” a noise?
4. What are the three ways to control noise hazards? Give an example of each.



Mechanical Equipment, Tools and Safety

– Lesson 10

Basic Review Questions?

1. What is the function of guards on equipment?
2. Often machines have guards, but a worker does not use them. Why? Why not?
3. What is meant by the term “lock out”?
4. What is meant by the term “tag out”?
5. Who is responsible for restarting machinery after it has been locked out? Tagged out?
6. Give three reasons why portable power tools are dangerous.
7. What care should be taken when you are using tools that run on electricity?
8. What safety procedure may have been ignored in the case of the worker whose daughter lost the sight in one of her eyes?
9. A worker is assigned the task of putting a shelf on the wall. She will require a hammer, drill and screwdriver. What are some precautions that she should take?

Overview of Lesson

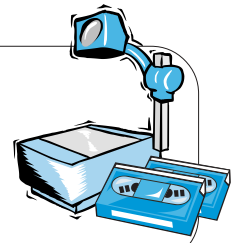
In this lesson students learn that all machines (whether powered or non-powered) have the potential to do harm. The more you are exposed to mechanical equipment on your job, the greater the number of hazards.

Students learn to identify examples of machinery, transport equipment, powered equipment and non-powered hand tools. Students learn about the importance of guards, lock outs and tag outs when working with machinery.

Personal protective equipment (e.g. eye protection, gloves, footwear, clothing, aprons and respirators) for portable power tools are discussed. The usefulness of different types of gloves (mesh, leather, rubber, asbestos or aluminum fabric) is emphasized for use with non-powered hand tools such as wrenches, screwdrivers, hammers, axes, rakes and knives.

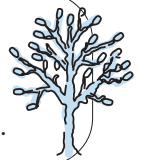
Materials Required:

- Video: Hand and Power Tool Safety (optional)
- Video: Protecting Hands from Hazards (optional)
- Video: High Impact Hand Safety (optional)



Branching Out

1. If able, visit an industrial arts shop and identify examples of guards as well as demonstrate lock out and tag out procedures.



*“Safety equipment is important,
everyone knows!
Finish the job
with ten fingers and toes.”*

*“Don’t pull your lock and turn it on
until you’re sure the workers are
finished and gone.”*

Electrical Safety

– Lesson 11

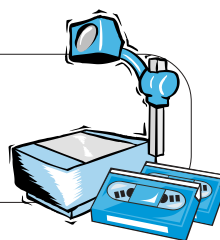
Overview of Lesson

In this lesson, students learn about the many hazards associated with electricity from electrical shock (which can affect your breathing, heart, brain, nerves and muscles) to electrocution. Students learn that when they come in contact with “live” equipment or wire, they become part of the electrical circuit, receiving a shock.

The concept of “grounding” is explained as a safe pathway for electricity to travel from the equipment or circuit to the ground, preventing shock. Ways of reducing electrical hazards, including personal protective equipment, are also touched upon.

Materials Required:

Video: Respect Electricity (optional)



Branching Out

1. In a room with a fume hood or out of doors, place pieces or strips of different fabric in foil pans and set on fire to determine which fabric is less flammable. The contents of the fabric can be determined by looking at the label.
2. Provide an illustration for each of the suggested precautions associated with respecting electricity.



*“Electrical equipment,
no matter how large or small,
before fixing, unplug them all!”*

*“Disconnect – use common sense,
or be referred to in the past tense.”*

Basic Review Questions?

1. How does an electrical shock affect your body?
2. What may happen if you receive an electrical shock while you are standing on a ladder?
3. What does grounding do?
4. When should you make repairs to electrical equipment?
5. What types of clothing should you wear if you are working with electricity?

Fire Safety

– Lesson 12

Basic Review Questions

1. What are the three things necessary for a fire to burn?
2. When should you fight a fire?
3. How are fires classified?
4. What type of fuel is involved in Class A fires, Class B fires, Class C fires and Class D fires?
5. What does P A S S stand for when it comes to using a fire extinguisher?
6. When should you Stop, Drop and Roll?
7. Locate all fire extinguishers in the school. How many fire exits does the school have?

Overview of Lesson

In this lesson students learn about the fire triangle and the three critical components that are required for a fire to burn – fuel, heat and air. If one of these is absent, then the fire cannot start or continue.

The four classes of fires are discussed:

1. Class A fires involve ordinary materials like wood, paper, plastic and cloth.
2. Class B fires involve flammable or combustible liquids: paint thinners, grease, gasoline, propane, kerosene, fuel oil, paint, and lamp oil.
3. Class C fires are electrical fires involving electrical equipment, switches and power tools.
4. Class D fires involve metals that burn, such as magnesium, potassium and sodium.

The **P-A-S-S** acronym is used for remembering proper fire extinguisher use:

P Pull the pin.

A Aim the nozzle of the extinguisher at the base of the flame.

S Squeeze the trigger. Make sure that the extinguisher is held upright.

S Sweep the extinguisher back and forth over the fire making sure that all the fire is covered.

Students also learn the “Stop, Drop and Roll” technique, as well as how to deal with burns, shock, and smoke and gas inhalation.

Materials Required:

Overheads: 12a - 12b

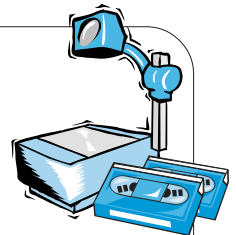
(listed separately and found in appendix)

Video: Remember Charlie (optional)

Overheads Provided:

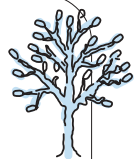
12a – Fire Triangle

12b – Types of Fire Extinguishers



Branching Out

1. Visit the local fire hall or have firefighters come in and give a demonstration of fire extinguishers and how to use them.
2. Review fire evacuation plans for your school.



Office Safety

– Lesson 13



Overview of Lesson

In this lesson, students learn about the leading causes of office injuries (slips, trips and falls) and identify hazards in their classroom environment.

The three main factors associated with repetitive strain injuries are discussed:

1. Actions that are repeated.
2. If force is used in the movement.
3. Awkward body positions.

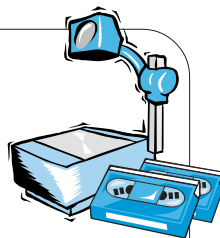
Students learn about the role of tendons, nerves and blood vessels related to various diagnoses for repetitive strain – tendonitis, bursitis, tenosynovitis, nerve damage, carpal tunnel syndrome, and thoracic outlet syndrome (blood vessels and nerves in neck and shoulders are squeezed). They also learn common treatments such as splints, tensor bandages, medicines, application of heat and cold, and surgery.

Materials Required:

Overhead: 13a (listed separately and found in appendix)

Video: Why Should I Care?

Video: Office Safety: It's a Jungle in There (optional)



Overheads Provided:

13a – Classroom Hazard Check List

Branching Out

1. Treat the classroom as an office. The desks are workspaces. Have the students list as many hazards as they can in the classroom. Hazards could include clothing, books, back packs on the floor, poor lighting, desks that are too small, chalk dust or fumes and room temperature.



Basic Review Questions?

1. What is the leading cause of office injuries?
2. What is the attitude that most people who work in offices have about safety?
3. What are some hazards to look for when using filing cabinets?
4. Where should heavier items in an office storage room be placed?
5. What are the three things that contribute to repetitive strain injuries?
6. What is the function of the following in your body: tendons, nerves, blood vessels?
7. How are the above affected by repetitive motions?



Ergonomics

– Lesson 14

Basic Review Questions

1. What is ergonomics?
2. What five things are considered when a workstation is designed ergonomically?
3. What are three ways to reduce repetitive strain injuries (RSI)?

Overview of Lesson

In this lesson, students learn that ergonomics is setting up the work site to meet the needs of the worker, resulting in fewer absences and higher productivity. Ergonomics can also help prevent or reduce repetitive strain injuries, which are the leading occupational injury at the workplace.

Five major factors need to be considered when designing a work site:

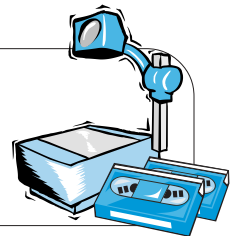
1. Workstation design: work area, hand tools, equipment, layout of the equipment and furniture.
2. Equipment and tools: chosen, designed, used and maintained to work comfortably and safely.
3. Manual handling: the less the better.
4. Environmental conditions: lighting, temperature, vibration of equipment, noise and animals/wildlife.
5. Work organization: jobs we do, how we do them, how fast we do them and how long we do them.

Students also learn that you can reduce repetitive strain injuries (RSI) by taking frequent breaks, rotating the worker from one workplace to another and by giving workers time to adjust to the pace of work when they start a new job or when they return from a leave.

Materials Required:

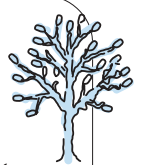
Video: Why Should I Care?

Video: Office Ergonomics: Watch Your Back (optional)



Branching Out

1. Form a safety committee and work together to develop safety procedures.
2. Redesign the classroom to meet the needs of individual students or redesign their work placement site.



Kitchen Safety and Hand Injuries

– Lesson 15

Overview of Lesson

In this lesson, students learn the three important steps when it comes to kitchen safety:

1. Be aware of potential hazards.
2. Follow safe procedures.
3. Use protective equipment when necessary.

Hazards that are in the kitchen include lifting, heat, electricity, sharp objects, flammable substances, slip, trip and fall hazards and poor housekeeping.

Students also learn about hand injuries. There are three ways by which your hands can be injured:

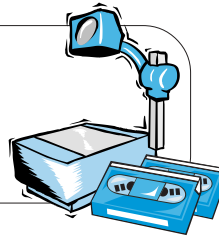
1. Catching your hands and fingers between two objects, e.g. in moving machinery, file cabinets.
2. Struck by an object, e.g. hammer.
3. Contact with an object or substance, e.g. chemicals or sharp objects.

Students are encouraged to think about the task they are going to perform before they actually do any work.

Materials Required:

Video: Kitchen Safety (optional)

Video: Hand Safety (optional)



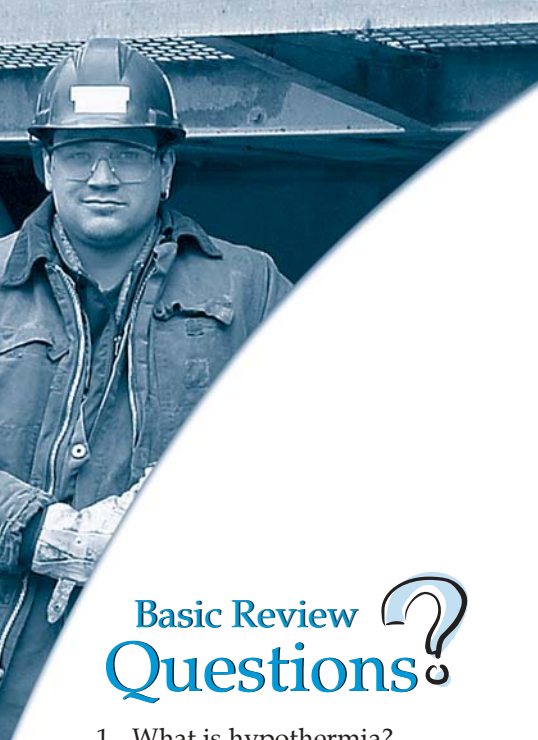
Branching Out

1. Think of 10 activities that you have done in class that require the use of hands and fingers. How would you perform them if you did not have the full use of your hands and fingers?
2. Use bandages to immobilize one thumb, both thumbs, the forefinger, all fingers, or the whole hand. Try performing some of the activities you identified but be sure to be CAREFUL.



Basic Review Questions

1. Why is it necessary to wash your hands often if you work in a food service industry?
2. What type of footwear should be worn in a kitchen?
3. What are four housekeeping tips that should be done in the kitchen?
4. How common are injuries to the hands?
 - a) What are the three types of injuries to the hands?
 - b) What are the results of each type of injury?
5. How are cuts caused?
6. What injury do gears, wheels and belts commonly cause?
7. What is the cause of repetitive strain injuries?
8. Why should you take off rings, watches and bracelets before you start to work with moving machinery?
9. Why should tools be stored properly?
10. Why should power be turned off when you are repairing machines?
11. What are some biological irritants that can affect your hands?
12. Why should you have a spare pair of gloves?



Environment

– Lesson 16

Overview of Lesson

In this lesson, students learn that the work environment is where you do your job. This could be indoors or outdoors.

Students also identify hazards associated with slips, trips and falls, as well as ways of preventing them, including:

- recognizing a potential accident situation and correcting it,
- being aware of your abilities and limitations,
- doing things the safe way even if it takes longer,
- fixing, removing or avoiding potential accidents, and
- using the proper equipment to do the job.

Students learn that hypothermia occurs when the body core cools below its normal temperature of 37° Celsius. Death usually results when the body core temperature drops below 27° Celsius. On the land, three conditions contribute to hypothermia – cold, moisture, and wind.

Young workers can prevent heat loss due to cold conditions by dressing warmly and using layers of clothing.

Students also learn that heat stress does not only happen in hot climates. You can suffer heat stress from working in hot workplaces like a kitchen or boiler room. If you wear heavy equipment that does not allow for air movement you may also experience heat stress. Heat stress reduces your ability to do work. You will become tired, irritable and may have cramps in your muscles. If heat stress is not recognized and treated, it may lead to heat stroke.

When discussing the environment, students often identify outdoor considerations related to wildlife (bears, wolverines, etc.). A video entitled “*Working in Bear Country*” is available from the WCB library to explore this topic.

Basic Review Questions?

1. What is hypothermia?
2. What three things contribute to hypothermia?
3. How do you prevent hypothermia?
4. What are the signs of hypothermia?
5. How should you dress to prevent hypothermia?
6. What causes heat stress?
7. How can you prevent heat stress?

Branching Out



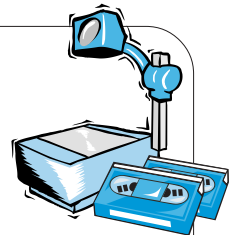
1. If you wish to include water safety, information may be available from the local Municipal and Community Affairs Office (NWT) or Community Government and Transportation Office (Nunavut).
2. Create a series of drawings (or models) showing the proper layering techniques for dressing for cold weather.

Materials Required:

Overhead: 16a (listed separately and found in appendix)
Video: Hypothermia: Outdoor Enemy (Outdoor Safety Series) (optional)

Overheads Provided:

16a – Prevention of Slips, Trips and Falls



Hazard Recognition and Confined Spaces

– Lesson 17

Overview of Lesson

In this lesson, students learn about hazard assessment by exploring possible hazards associated with the following four parts of the workplace:

1. People: employees or workers, management, visitors, clients, suppliers, and subcontractors.
2. Environment: where they work.
3. Materials: what they work with.
4. Equipment/tools: what they use.

Students also learn five basic approaches to hazard control: elimination, substitution, administrative controls, engineering controls and use of personal protective equipment (PPE). Students learn about “confined spaces” – areas where entry and exit are limited and where ventilation is poor.

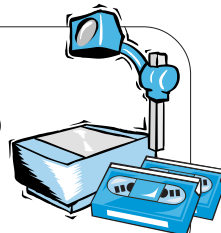
The concept of hazard assessment is discussed and students review a series of questions associated with the major groupings identified above and search for relevance to their own work experience situation. They also learn the importance of reporting hazards.

Materials Required:

Overheads: 17a (listed separately and found in appendix)

Overheads Provided:

17a – Hazard Assessment Check List



Branching Out

1. For hazards that have been identified in the workplace or classroom, try to identify how you could deal with them from five different perspectives – elimination, substitution, administrative controls, engineering controls, and personal protective equipment. Which approach seems to make the most sense?
2. Have a guest speaker from the community do a presentation on their job with regards to safety and the hazards they may encounter. These could be community specific e.g. hunter and trapper, construction worker.
3. Make use of the hazard assessment check list in the student text (and provided as overhead 17a) to conduct a more detailed assessment of a particular environment.



Basic Review Questions

1. What are the four main parts of the workplace that must be examined and evaluated to see what possible hazards may be present?
2. Identify the five approaches to hazard control.
3. What are the two conditions that make an area a confined space?
4. Why should you recognize that an area that you are asked to enter is a confined space?
5. Suppose you recognize that an area that you are asked to enter is confined. What should be done before you enter it?
6. Why should you not smoke in or near a confined space?
7. If a co-worker needs help while in a confined space, when should you go in the space to get him?



Injury on the Job

– Lesson 18

Basic Review Questions

1. What three things should you do if you are injured while on the job?
2. If you are injured on the job, when is a claim started with Workers' Compensation Board?
3. What does a case manager who is employed with WCB do?
4. Where does the money for WCB to pay injured workers come from?

Overview of Lesson

In this lesson, students learn that approximately one in seven young workers under the age of 25 will be injured each year. The most important thing is to get medical aid from a nurse or doctor, who must complete a Doctor's Report form. The young worker must also report injuries to the foreman, supervisor or employer who will be required to complete an Employer's Report of Accident form. As well, the young worker will be required to complete a Worker's Report of Accident form. Students learn why forms should be completed:

- to receive assistance for payment for medical treatment,
- to receive help in adapting to a new life style that is a result of injury, and
- to receive payment for lost wages.

They also learn when they are covered by WCB:

- during work hours,
- while they are in a company vehicle doing company business,
- while on the company premises (parking lot, construction camp), and
- while they are doing activities they have been instructed to do (e.g. if they are injured in a store picking up supplies for the company).

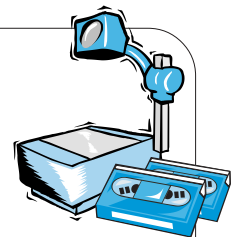
Students review a sample Worker's Report of Accident form and get a chance to fill one out during this lesson.

Materials Required:

Overheads: 18a - 18b
(listed separately and found in appendix)

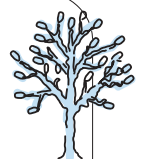
Overheads Provided:

18a/18b – Worker's Report of Accident Form



Branching Out

1. Describe an accident and have students follow the procedures for reporting an accident.
2. Assign different students different injuries and have them complete the Workers' Report of Accident form.



Labour Standards and Fair Practices

– Lesson 19

Overview of Lesson

In this lesson, students learn that the *Labour Standards Act* sets out the minimum conditions for employment. These conditions include:

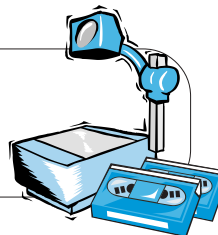
- hours of work,
- minimum wages,
- termination or ending of employment,
- annual vacations,
- general holidays,
- pregnancy and parental leave, and
- payment of wages.

The *Fair Practices Act* is also studied. It prohibits discrimination based on:

- race,
- creed,
- colour,
- sex (including pregnancy),
- marital status,
- nationality, ancestry,
- place of origin,
- disability,
- age,
- family status, and
- conviction for which the person has been pardoned.

Materials Required:

n/a



Branching Out

1. Contact an employee of Labour Services at the Government of the NWT or Nunavut to speak with students.
2. Obtain copies of the *Labour Standards Acts* for class viewing. Before examining them, have students discuss what they believe the minimum conditions for employment are.
3. Have students develop a set of questions they can use in a job interview situation regarding safety and employment conditions.



Basic Review Questions?

1. What is the purpose of the *Labour Standards Act*?
2. If you disagree with what your employer has paid you, what can you do?
3. Why should you keep pay slips?
4. If an employer fired you for missing too much work does this go against the *Labour Standards Act*?
5. If you feel you are being discriminated against, what should you do?
6. If you feel a co-worker is being discriminated against, what should you do?
7. As a new worker on the work site you are exposed to comments and gestures, by co-workers of the opposite sex. You find their actions offensive. How would you deal with the situation?

Resources

Lessons in this program will refer to various videos. Some will be identified as core resources (which have been sent to schools), and some have been identified as supplementary or optional resources. The supplementary or optional resources assist in developing the content of the lessons, but are not required in order to deliver the module. Video resources are available from the Workers' Compensation Board Library, P.O. Box 8888, Yellowknife, NT X1A 2R3. Phone toll free 1-800-661-0792 or fax requests to 1-867-873-0262

A complete listing of appropriate video resources follows. In addition, overheads and other resources provided for each lesson have been identified.

Lesson	Name of Lesson	Overheads Provided	Core Resource (Videos/Other)	Optional or Supplementary Resource (includes video)
1	An Introduction to Workplace Safety: Safety and the Young Worker	1a - 1g	Safety and the Young Worker	"The Week Time Stood Still" story by Patricia Mason
2	Laws in the NWT and Nunavut	2a - 2c	Safety and the Young Worker	
3	Health and Safety Hazards		It Didn't Have to Happen	Silly Little Risks: Talking to Teens
4	WHMIS: An Introduction	4a - 4d	It's a Hazardous World	
5	WHMIS Responsibility and Labels	5a - 5j		
6	Product Classification and Hazard Symbols	6a - 6j	The Winning Label	Steering Clear of Hazardous Materials Part 2
7	MSDS and Control of Hazardous Materials	7a - 7g	MSDS for propane and gasoline	
8	Manual Handling, Carrying and Lifting			Dealing with Manual Handling (Safety Care Series)
9	Noise in the Workplace, Slips, Trips and Falls	9a - 9c		Walkman Generation
10	Mechanical Equipment, Tools and Safety			Hand and Power Tool Safety Protecting Hands from Hazards High Impact Hand Safety
11	Electrical Safety			Respect Electricity
12	Fire Safety	12a - 12b		Remember Charlie
13	Office Safety	13a	Why Should I Care?	Office Safety: It's a Jungle in There
14	Ergonomics		Why Should I Care?	Office Ergonomics: Watch Your Back
15	Kitchen Safety and Hand Injuries			Kitchen Safety Hand Safety
16	Environment			Hypothermia: Outdoor Enemy (Outdoor Safety Series) Working in Bear Country
17	Hazard Recognition and Confined Spaces	17a		
18	Injury on the Job	18a - 18b	Worker's Report of Accident Form (OH 18a - 18b)	
19	Labour Standards			

Workplace Safety Passports

(WCB) Workplace Safety Passports

Students are eligible for a wallet size passport (card) which identifies that the student has passed the Workplace Safety final exam and the WHMIS final quiz. The passport will also include a photo ID of the student, if a photo is sent to the WCB along with the passport reporting form.

On both the Workplace Safety final exam and the WHMIS final quiz, students require a 70% to pass. Information on which courses students have passed can be sent to the WCB using the Workplace Safety Passport Report Form which follows. Forms can be sent to the WCB after the completion of the Workplace Safety final exam and the WHMIS final quiz. Once the WCB has received information that students have passed the first two requirements, they will send a laminated, wallet size Workplace Safety Passport to the student(s). When the WCB receives confirmation of the level of First Aid course completed by the student, a new passport will be issued.

The Week Time Stood Still by Patricia Mason

– Appendix 1

In 1994, the WCB accepted claims for 152 workers who died. Twenty-year old Darcy Jones, an oil worker from Fort St. John, was one of them. His mother, Patricia Mason, calls the dark days after his death on September 10, 1994, the “week time stood still.” This is her story.

The day broke crisp and cool. After all, it was September 10. The sun’s rays caught the shimmering waters of Shuswap Lake. It was a beautiful day!

Off we go from our Eagle Bay home to Kamloops to spend the day looking at vehicles, attending to some business and shopping.

It is 4:30 p.m. Need fuel. Stop at Petro-Can in Sorrento. See my husband Gerry with a big white fluffy puppy in his arms.

“What are you doing with that dog?”

“Taking it home.”

“No you’re not. We already have two pugs.” He reluctantly hands back the puppy.

“What are you thinking?” I ask.

“I just thought that would be a good dog for Darc.”

“What? How could we get it to him in Fort St. John? Besides, he would really like a pug.” Funny feeling in the pit of my stomach.

We are home. It is 6:30 p.m. Think I will go lie down on the couch for awhile.

Phone’s ringing. My husband picks it up. I hear him say, “She’s sleeping. This is her husband.” I hear murmurs. What is it? What has happened? Terrible feeling in my gut. Oh my God, what now? As I get up and walk, he dials the phone. Hear him say, “Get over here right away!”

What’s going on? It is 9:15 p.m. I walk toward the bedroom.

The knot tightens. No, God. I have this sick feeling. Feet! Move! Darcy! It takes forever to get

down the 20-foot hallway, as he hangs up the phone. My husband looks strange! “Who was on the phone?” I say.

He looks up at me, stunned. “The RCMP. They have to come out and see us.”

“Who?” I say. Long prolonged silence. I know! He looks at me. No! Not my boy!

He grabs me, folds me in his arms, holding tight. I am suffocating. I push away. “Let me go! Let me go! I can’t breathe. Let me go! What did they say?”

They are on their way out from Salmon Arm.” Forty-five minutes, I think.

“How do you know it is Darcy?”

He answers, “They wouldn’t directly say. I went through the list of the family. When I got to Darcy, they went silent - I knew.”

“What happened? Car accident?”

“I don’t know. They wouldn’t tell me.”

“He’s dead.”

“We won’t know that until they get here.”

“Don’t do this to me. We both know that when the RCMP have to come out, there has been a fatality.”

“No, hon, just wait.”

“No! No, God, please no, not my boy!”

The sick feeling deepens. I know! Coffee, have to make coffee. My husband holds me. My body is screaming. Nothing comes out!

He’s crying. I’m crying. Where am I? Coffee. Need coffee! To the kitchen! Mind racing! Water! Coffee! Start! Walk! Pace! Move in circles! What is happening? My baby!

Phone rings. Husband answers. The look on his face, confirms. The RCMP are here. “You stay in the house, “ Gerry commands.

An eternity passes. I don't want to know! My husband appears in the doorway. I know for sure. That look on his face! No words are necessary.

The constables introduce themselves. "Are you Patricia Mason?"

"Yes," I reply.

"Is your son Darcy Carl Jones?" "No," I wanted to scream!

"Yes."

"There has been an industrial accident and we are here to inform you that the accident was fatal." Silence. I am silently screaming, "Not my boy." "Are you all right?"

"Yes. What happened?"

"I am sorry; we do not have details. The constable you are to contact doesn't come on shift until 7:00 a.m. in Fort St. John."

"Would you like coffee?"

"Yes, that would be nice."

Push up! Legs move! Cups! Pour! Coffee! Crashing in my head!

"Is there anything we can do?"

"Thank you, no. We appreciate your kindness and know how hard a job this has to be for you."

"Thank you. Good night."

I need a drink. I am shaking like a leaf. My body is numb. I hurt. An unbearable pain. Voices. Get your thoughts under control. Concentrate. Now the really difficult part. We have to tell the family. Phone calls.

My beautiful daughter. How can we tell her that her only sibling is dead? K.C. can't be alone when she finds out. She has already lost her father. Better call her fiancé Mike's parents. What is she going to do when she is told? She will go berserk. Dear God, why? The tears erupt. Not for me, not for my son, but for my daughter.

Must keep alert. Mom. Have to tell Mom. Not tonight. Phone rings. Who is Gerry talking to now? It is K.C. Gerry is crying. Hands the phone to me.

"Mommy, please tell me it isn't true!" It's been a long time since she has called me mommy. I know her heart is broken. I know I cannot spare her the pain.

"I'm sorry, sweetheart, but it is true."

"No, mommy, not Darcy." She cries. I cry for her. My heart is shattered. "What happened?" she gasps, between tears.

"All we know is that he died at work. No details until 7:00 a.m."

"I am leaving now for Fort St. John," my husband says.

"No. Try and get some sleep first. It is 12:05 a.m."

Gerry is staring into space. He can't lie down to rest. Our friends Anne and Rein are there, consoling, comforting. My husband is crying.

We convince Gerry to wait until daylight at least. He's a doer, and he needs to go toward his stepson. He has to be on the move. "Go to bed, hon," I beg. We sit alone with each other, lost in our thoughts, feeling the pain. If there is a hell, we are living it.

The morning breaks. Time to phone the RCMP in Fort St. John. My husband asks where our son is. My husband asks what happened. He asks what seems to be all the right questions. My husband is leaving for Fort St. John in an hour. I pack his bag. I am moving in a zombie-like state.

My husband has called our doctor. "Need something for my wife. She is in shock and starting to shake uncontrollably." Then he is driving away.

What next? Food. Need some things in town. Rein will go into town for the prescription. Should get some rest.

Phone rings. Anne monitors the calls. I can't do it. Thank God for Anne. I do not want to talk to anyone other than family. Can't think. Shock! Rein back from town. Anne says, "Take this." I take it. Now, go lie down. Do I rest? Who knows? I am up.

K.C. called. She has gotten me an outfit for the funeral and one for herself. Good. She is keeping her mind busy. Arrived safe and sound. Will call me in the morning. Rest.

It is 4:33 a.m. The house is still. I sit with my coffee, waiting for some answers. I need to know. Anne hears me up. We talk; we cry; we hold each other. She is my strength; she is my friend. Today is going to be a tough one. Today is the day we have to find out how our son died. Today should go away.

The phone calls. The many, many phone calls. This time it is Gerry. My poor husband. We should be doing this together. He knows I am not in control. He sounds exhausted. He sounds sad. He sounds miserable. He explains that our son died instantly. That he suffered no pain. He explains what happened. I do not understand. I know nothing about the oil patch and service rigs. I ask questions.

They are doing an autopsy. Gerry has met with the RCMP, with Darcy's boss, and the Workers' Compensation people. He signed for the body to be released from the funeral home.

"Do you want him cremated?"

"No, I want him home in one piece."

"Hon, sweetheart, listen to me. Under no circumstances will there be a viewing or an open

casket. I'm afraid, sweetheart, that you will not be able to see Darcy again." No questions, no arguments, I could tell by the tremor in his voice. "Take comfort in that he didn't know what happened." It was no comfort.

"K.C. and I have discussed what we want. We would like him to be buried in Cranbrook, where he grew up."

"I knew that, dear. I have to make arrangements to fly the body."

"K.C. and Mike will be here late this afternoon."

"Good, you need them there."

Lots of phone calls. Everyone is so sad. Phone rings. It is Gerry again. Too many decisions to be made. Darcy's friends are asking where the funeral will be and when. O.K. I'll phone Gordon at McPherson's, the funeral home in Cranbrook. I don't want to make this phone call. This is my son, my only boy child, my baby. Gordon at McPherson's remembers us. He took charge of the services for Darcy's great-grandfather, his grandfather, his father, and his grandmother. Darcy is the last male in the family. The end of an era; there will be no more. I cry. I cry for all the generations.

The afternoon is passing slowly. Anne listens as I talk about my loss. I anxiously await Mike and K.C. We need Darcy's address book. Need to contact his closest friends.

Gerry calls. He has made arrangements for Darcy's roommates to pack up his things. They are all taking this pretty hard. Gerry will load everything into the pick-up. "We need to discuss what clothes you want him dressed in." This is nonsense, I think. We are not supposed to outlive our children. "I guess his dress pants and sports jacket with his burgundy silk shirt."

"All right, hon. Do you want his snowboard?"

This was my son. His snowboard. He water-skied, had been on snow skis since he was five, but his passion was the snowboard.

“Of course, I want his snowboard.”

“There are his cars.”

“See if you can store them somewhere.” His ‘61 Valiant, converted to a stock racing car, is in the shop. He was pretty proud of that car. It could go about 160 in a quarter mile. His bike is also in the shop. I want all of what is left of my son. All the material things that made him the person that he was.

My daughter is here. I have to be strong for her. She has to be strong for me. We hug and cry. Our emotions run wild. “What happened?” K.C. wants to know.

“Gerry will have to explain it, dear.”

We have to write a eulogy for the service. We also need an obituary for the papers. Still have a lot to face. K.C. is on the phone notifying Darcy’s friends who are scattered across Canada. We need Darcy’s address book. Have to wait until Gerry gets back home. Finally, I am tired.

Gerry calls. They couldn’t find Darcy’s silk shirt. His dress shoes don’t fit, nor do his dress pants. “What did you do then? I ask.

“I dressed him as he dressed everyday. His new blue jeans, t-shirt (from the drag races in Spokane; the kids said it was his favourite), his running shoes and sports coat.” That was our boy.

“You sound tired” I say.

It is 4:33 a.m. Tuesday morning. It is September 13. I have a thousand thoughts running through my head. I think of nothing else but my son. I need to write my son’s eulogy. No one else can do this. It is mine to do. What do I say? His

laughing smile never to be seen again. Never to hear him tell one of his jokes. Never to hear him call me Shorty again. I write, but cannot capture the essence of my son. It is too painful. I write facts. That is all I can do.

K.C. is up. She holds me. We need to lay out some plans for the day. Keep busy. Music, we have to decide on music for the service. “The Rose.” What else? Anne suggests, “No More Tears in Heaven.” Will phone Darcy’s friend Henry. He suggests “Gone Too Soon.” Isn’t that true?

It is a sun-filled day. Warm for September. Neighbours stop by with cards and words of kindness. They bring food. They bring love. Flowers are delivered. There is laundry to do. We must be ready to leave for Cranbrook. I cannot leave my boy alone. We are financially unprepared. We have to speak to our banker.

Gerry is home. He is weary. The trip has taken its toll. He has deteriorated. He holds K.C. and they cry. He holds Mike and they cry. His day is not finished; the worst burden is yet to come. He has to tell us the dreadful truth. He would like to spare us, but he knows he can’t. Darcy is on an aircraft headed for Cranbrook. Gerry has to tell us how he died.

“He was out on the service rig, swabbing the well. The sandline wasn’t spooling properly so Darcy grabbed a poplar stick and was manually trying to spool the line into the drum when the stick snapped. He lost his balance and fell into the line and drum. It was instant. He didn’t suffer. He was wrapped, the cable took . . . He lost his fingers on one hand and . . . he had severe head injuries . . . He never knew what happened.”

Tears were streaming down all our faces. K.C. didn't understand why she couldn't see her brother to say good-bye. Gerry couldn't tell her at this point that her brother's brain was exposed and he had multiple facial injuries. He only said that the sandline travelled at about 2,600 revolutions per minute and that it did not stop on a dime.

"Did he receive first aid?"

"Yes, an Airvac helicopter was sent." We were all lost in our thoughts.

We needed Darcy's address book. It was time to look among his possessions. I didn't know if I could handle seeing my son's things. I entered the basement with a foreboding. I knew that to see his things would mean the truth, that I hadn't been in a bad nightmare since Saturday night. I started looking for his address book. There was so little here. Was this all there was to my son?

I picked up one of his shirts, smelling his body odour and his cologne and broke into a million pieces. I lost it. I had no control. All the many thousands of tears I had to cry came forth. I entered into a place where only I knew from where the pain came. My husband walked in and barked instructions to K.C. "Get your mother out of here and upstairs now! Don't let her come down here again."

I had trouble controlling my legs. I was shaking. K.C. poured me a strong drink. Now, there was no comfort. Now, there was only pain. I sat, holding my son's shirt, letting my tears flow with abandon, releasing my torment, entering into that place called grief.

It is 4:33 a.m. Wednesday. Why am I awakening at this time every morning? It is very weird. I begin writing a tribute to my son:

Before you were born, I loved you.

When I looked into your beautiful big brown eyes, with those one-inch lashes, my heart was full, and I loved you.

When I tried to comb your hair and your cowlicks stood up on end, I loved you.

When I put you in K.C.'s arms, she loved you - and I loved both of you.

I continue writing through your childhood tumbles, your typical teens, your hurt, and triumphs. You could always bat those big brown eyes, knowing that I would melt, because of that gorgeous smile, get your own way, and I loved you. When I first laid eyes on you in your grad tux, tears welled and I was so very proud. Was this really my little boy? This very tall handsome fella - now a man.

The last time we were all together was Christmas. You held me in your arms, gave me your big bear hug, ruffled up my hair and called me Shorty. That was the last time we saw you. Those memories forever etched in time.

It is the day before the funeral. Deep in thought about whether I would have enough courage and strength to read my tribute during the service, I wonder about what my son had written in his address book. It reads:

Name: D. Jones

In Case of Illness or Accident, Notify

Name: GOD

Address: UP

Telephone: 777-7777

Had our son had a premonition?

We leave for the funeral home. The minister will meet us there. I wonder where my son is? Where in this big building is he? We discuss flowers, the service memorial hand-out, the cemetery plot, the pallbearers, the honorary pallbearers. We need to pick out a casket.

We see a beautiful gold one with a cream lining. Gerry asks if this can be sealed and locked. Gordon explains that it will be locked and only he will have the key. Gerry is satisfied. I hand Gordon my son's graduation picture to be placed on the casket.

We want a "Celebration of Life" service. The minister knows exactly what we want. I ask him if there is any significance to sevens in the Bible and show him Darcy's address book. The look on his face is astonishment. He says no more.

Back at my mom's, my family begins to arrive. This is going to be a day of tears. My young nieces and nephews are devastated. I feel like I have a rubber face.

That night we gather together in the family room at McPherson's for a private service. The room is filled with the most beautiful flowers I have ever seen. Where had they all come from?

Our minister needs to speak to Gerry and I outside. He has done some research after speaking to us this morning. He knew then that the sevens Darcy had written in his address book were significant and dated back to the days of the Hebrews. He explained to us that he had been too shocked to say anything that morning. He had never come across this before. He explained that there are seven days in the week, that there are seven archangels, that seven and the multiples of seven are very significant in the Bible. He asked if he could use the book in the service tomorrow. We gave it to him. We knew our son was in good hands.

It is 4:33 a.m. Friday, September 16, 1994. I lie in bed, dreading this day. Somehow the morning passes. From the time we enter the chapel, until much after the service, the day is a blur in my memory. I recall my husband holding my hand very tightly.

I remember thinking as I walked toward the front pews and my son's casket that there were a lot of people there for us and that the chapel was full to capacity. I do not remember the exact words our minister spoke, but I do remember the song "Gone Too Soon" and thinking how appropriate it was.

I remember my legs wouldn't hold me so that I could read the tribute I had written for my son, so his co-worker and second "mom" Judy read it.

I remember being ever so proud of my daughter as she walked past her brother's casket to read to him her fond farewell. I remember wondering if our son knows how very much we loved him.

At the gravesite, I only remember placing a white rose on my son's casket and my husband holding me up to get me back to the car. I know that Darcy's friends paid their final tribute to him by playing his favourite song at the gravesite.

Six months have passed since that day and the one clear memory I have is of the words spoken to me by one of Darcy's close friends. He said that Darcy was very much loved. Then he asked me if I knew why, and he replied, "Because he never gave anyone any reason not to." That was my son.

Workplace Safety Final Exam

– Appendix 2

Indicate which statements are true or false.

1. A young worker is anyone under the age of 25.
2. Injuries from machines and electrocutions account for the leading cause of death among young workers (next to car accidents).
3. WHMIS applies only within the NWT and Nunavut.
4. You do not have the right to refuse work in the workplace.
5. Ingestion occurs when hazardous chemicals are breathed in.
6. Irritated skin is often a sign of a chemical hazard that has been absorbed.
7. A needle puncture is an example of a chemical hazard being injected.
8. Manual handling includes any activity that requires the use of force by a person to lift and lower objects.
9. Young workers are better able to cope with manual handling and are less susceptible to injury than older, experienced workers.
10. Temperature and the amount of light are examples of working conditions that might affect your ability to move an object.
11. Having difficulty hearing and understanding when people are talking may be an early warning sign of hearing loss.
12. On most work sites, you will eventually “get used to” noise.
13. Headphones from CD players and tape players can help protect you from noise.
14. Noise hazards can be eliminated by rotating workers from noisy areas and by using personal protective equipment.
15. A two-handed control is an example of a “guard”.
16. Cutting off the power supply to machinery is an example of a “tag out”.
17. When you receive an electric shock, you actually become part of an electrical circuit.
18. Electricity can cause serious injury or death to humans, even at low voltages.
19. An electric shock can affect your heart, nerves and muscles, but not your brain.
20. Electrocution is one of the leading causes of death among young workers.
21. To stop a fire, one of the three components of the fire triangle needs to be removed.
22. If fire is spreading quickly, you should try to contain it rather than going for help.
23. Class B fires involve ordinary materials like paper, wood, plastic and cloth.
24. Class C fires are electrical in nature, involving electrical equipment, switches and power tools.
25. When working on a computer, you should try to keep your wrists in a straight line with your lower arms.
26. When using a computer, your feet should be flat on the floor or footrest.
27. Ergonomics is setting up the work site to meet the needs of the employer.
28. Your work site should fit you. You should not have to adjust to the work site.
29. You should wash your hands and forearms with soap before you start work in a kitchen.

30. Washing of hands is not necessary each time you blow your nose or after you use the washroom.
31. It is okay to wear small jewellery items when working in the kitchen.
32. To clean a knife, direct the edge towards you and wipe with cloth on the back of the blade.
33. A damp cloth can be used as a good substitute for a pot holder.
34. One of the most common causes of falls are makeshift stacks of furniture or boxes that are used in place of a step ladder.
35. Hypothermia occurs when your body cools more than 10 degrees below its normal temperature of 37° Celsius.
36. With mild hypothermia, you will start to shiver and become tired.
37. In severe hypothermia, you may start to do “weird” things – e.g. become irrational.
38. Hypothermia can lead to failure of the heart and breathing, causing death.
39. Moisture, cold and wind all contribute to hypothermia.
40. You can avoid creating hazards by following established procedures and avoiding short cuts.
41. One in 10 young workers under the age of 25 will be injured each year.
42. It is very important to let your nurse or doctor know that your injury occurred at work.
43. When you are injured, your doctor must complete a form for the WCB.
44. When you are injured, your employer is not required to fill out a form for the WCB because you have already done so.
45. Upon receiving the first report of your accident, the WCB will set up a claim and assign a case manager to your case.
46. You are covered by the WCB during work hours only.
47. You are covered by the WCB while you are in a company vehicle doing company business.
48. You are covered by the WCB while you are doing activities you have been instructed to do by your employer.
49. You are covered by the WCB when you get home after work.
50. You are responsible, as a worker, to contact your employer about any absence from work, within a reasonable period of time before your work was to begin.

Choose the best answer for each question.

1. How many basic rights are you guaranteed under WHMIS regulations?
 - a) 2
 - b) 3
 - c) 4
 - d) 12
2. Whose responsibility is it to ensure that the standards of the NWT and Nunavut *Safety Acts* and the NWT and Nunavut *Health and Safety Acts* are met?
 - a) employer
 - b) worker
 - c) government
 - d) safety officer
3. Which of the following is not a basic right workers have to protect their health and safety?
 - a) the right to know about possible hazardous materials in the workplace
 - b) the right to decide hours of employment and minimum wage
 - c) the right to participate in decisions affecting workplace safety conditions
 - d) the right to refuse work if you believe it to be dangerous to health and safety
4. Before a load is moved, you should consider:
 - a) nature of load
 - b) working conditions
 - c) personal limitations
 - d) all of the above
5. Put the following sequence in its proper order for lifting an object.
 - a) Use your whole hand, not just the fingers to grip. Keep your arms as straight as possible.
 - b) Centre and balance your body over your feet. Pull the load close to your body.
 - c) Lift with your legs, not with your back. Move your feet. Don't twist your back to turn.
 - d) Make sure your footing is firm. Place one foot forward beside the object; place the other foot slightly behind and hip width from the front foot. Always keep your back straight.
6. Which of the following is not an example of personal protective equipment?
 - a) sneakers or running shoes
 - b) gloves
 - c) protective aprons
 - d) respirators or breathing masks
7. Which of the following are common non-powered hand tools?
 - a) drills, axes and chainsaws
 - b) saws, hammers and drills
 - c) screwdrivers, hammers, axes
 - d) wrenches, rakes, knives and welding equipment
8. The third prong on an electrical cord serves what purpose?
 - a) It can be used for locking out the power tool.
 - b) It prevents fuses from blowing.
 - c) It provides grounding, preventing shock.
9. Which personal protective equipment should not be used to help reduce electric shocks?
 - a) rubber soled shoes
 - b) rubber gloves
 - c) non-conductive head equipment
 - d) leather gloves

10. Clothes made of what material are less likely to burn?
- polyester
 - synthetic
 - cotton
11. The best course of action if you or a co-worker catches on fire is to:
- run and get a fire extinguisher
 - stop, drop, and roll
 - try to pat the fire out with your hands
12. Major burns should be treated as soon as possible at a hospital. You can also:
- immerse the burn area in water
 - apply ice to the burn area
 - remove any charred clothing
 - cover the person loosely with a clean, dry sheet or dressing
13. Which is not a sign of “shock”?
- cold sweat
 - pale skin colour
 - clammy skin
 - regular breathing
14. Which of the following are not affected by repetitive strain injuries (RSIs)?
- shoulders and neck
 - wrists and hands
 - knees and feet
 - back and elbows
 - all of the above are affected
15. Which of the following is a true statement?
- If you repeat a motion more than 10 times per day, you are at risk for injury.
 - Awkward body positions and movements increase the chance of a repetitive strain injury.
 - Using a screwdriver rather than a hammer will reduce your risk of injury.
 - Taking notes in class will cause repetitive strain injury.
16. Which of the following environmental conditions affect your productivity and health?
- lighting
 - the temperature
 - vibration of equipment
 - noise
 - animals
 - they are all factors
17. You can reduce RSI by:
- taking fewer but longer breaks to allow for recovery time
 - staying with the same job so that your body adjusts to it over time
 - giving workers time to adjust to the pace of work when they start a new job or when they return from a leave
18. You can prevent hand injuries by:
- using readily available tools rather than your hands
 - following safe work procedures and using protective equipment
 - only wearing small items of jewellery on the work site
 - all of the above
19. If you are uncertain of the hazards, you should:
- proceed slowly
 - try not to get too anxious about it
 - ASK – its the smart thing to do!
20. Slips can be caused by which of the following conditions:
- loose flooring or carpets which are not rubberized on the bottom
 - electrical cords not secured to the floor (by duct tape)
 - unnecessary clutter or obstacles catching your foot
 - all of the above

21. You can prevent slips, trips and falls by:
- recognizing a potential accident situation and correcting it
 - doing things in a safe way even if it takes longer
 - using proper equipment to do the job
 - all of the above
22. You can prevent the body from losing heat due to moisture by:
- building a shelter if necessary
 - wearing wool clothing
 - using layers of clothing
23. When using layers of clothing, the second layer should:
- include a garment with an adjustable neck opening to prevent perspiration and allow for control of body heat
 - include a toque and warm gloves
 - cover the core areas of the body
 - include a parka and insulated pants
24. If you end up in water, will your body lose heat faster or slower than on land?
- faster
 - slower
 - at the same rate
25. If heat stress is not monitored, it may:
- make you tired
 - make you irritable
 - cause muscle cramps
 - lead to heat stroke
26. Which statement is not true about confined spaces?
- Your ability to enter is limited.
 - Your ability to leave or exit is limited.
 - The ventilation is poor.
 - The lighting is generally poor.
27. What is a thorough examination of an operation (job site, shop, etc.), to identify actual and potential hazards, called?
- MSDS inspection
 - Hazard assessment
 - RSI inspection
28. Which of the following is not covered under the *Fair Practices Act*?
- race
 - creed
 - sex
 - marital status
 - nationality
 - age
 - they are all covered under the Act
29. Which of the following is allowed?
- dismissing a person from a job because she is pregnant
 - asking questions about your age or sex on an application form
 - releasing someone who has a conviction (even though he/she was pardoned)
 - releasing someone who is always showing up late for work
30. If you feel that you are being discriminated against or harassed, you should:
- hire a good lawyer
 - consider looking for a different job
 - tell your coworker or supervisor as soon as possible
 - immediately contact the Fair Practices Office

Have students indicate the correct answers below.

- | | | | | |
|-----------|-----------|-----------|-----------|-----------|
| 1. _____ | 11. _____ | 21. _____ | 31. _____ | 41. _____ |
| 2. _____ | 12. _____ | 22. _____ | 32. _____ | 42. _____ |
| 3. _____ | 13. _____ | 23. _____ | 33. _____ | 43. _____ |
| 4. _____ | 14. _____ | 24. _____ | 34. _____ | 44. _____ |
| 5. _____ | 15. _____ | 25. _____ | 35. _____ | 45. _____ |
| 6. _____ | 16. _____ | 26. _____ | 36. _____ | 46. _____ |
| 7. _____ | 17. _____ | 27. _____ | 37. _____ | 47. _____ |
| 8. _____ | 18. _____ | 28. _____ | 38. _____ | 48. _____ |
| 9. _____ | 19. _____ | 29. _____ | 39. _____ | 49. _____ |
| 10. _____ | 20. _____ | 30. _____ | 40. _____ | 50. _____ |

Have students indicate the correct answers below.

- | | | |
|-----------|-----------|-----------|
| 1. _____ | 11. _____ | 21. _____ |
| 2. _____ | 12. _____ | 22. _____ |
| 3. _____ | 13. _____ | 23. _____ |
| 4. _____ | 14. _____ | 24. _____ |
| 5. _____ | 15. _____ | 25. _____ |
| 6. _____ | 16. _____ | 26. _____ |
| 7. _____ | 17. _____ | 27. _____ |
| 8. _____ | 18. _____ | 28. _____ |
| 9. _____ | 19. _____ | 29. _____ |
| 10. _____ | 20. _____ | 30. _____ |

Workplace Safety Final Exam

– Correct Responses

Correct answers below.

- | | | | | |
|------------------|------------------|------------------|------------------|------------------|
| 1. <u> T </u> | 11. <u> T </u> | 21. <u> F </u> | 31. <u> F </u> | 41. <u> F </u> |
| 2. <u> T </u> | 12. <u> F </u> | 22. <u> F </u> | 32. <u> F </u> | 42. <u> T </u> |
| 3. <u> F </u> | 13. <u> F </u> | 23. <u> F </u> | 33. <u> F </u> | 43. <u> T </u> |
| 4. <u> F </u> | 14. <u> T </u> | 24. <u> T </u> | 34. <u> T </u> | 44. <u> F </u> |
| 5. <u> F </u> | 15. <u> T </u> | 25. <u> T </u> | 35. <u> F </u> | 45. <u> T </u> |
| 6. <u> T </u> | 16. <u> F </u> | 26. <u> T </u> | 36. <u> T </u> | 46. <u> T </u> |
| 7. <u> T </u> | 17. <u> T </u> | 27. <u> F </u> | 37. <u> T </u> | 47. <u> T </u> |
| 8. <u> T </u> | 18. <u> T </u> | 28. <u> T </u> | 38. <u> T </u> | 48. <u> T </u> |
| 9. <u> F </u> | 19. <u> F </u> | 29. <u> T </u> | 39. <u> T </u> | 49. <u> F </u> |
| 10. <u> T </u> | 20. <u> T </u> | 30. <u> F </u> | 40. <u> T </u> | 50. <u> T </u> |

Correct answers below.

- | | | |
|------------------|------------------|------------------|
| 1. <u> B </u> | 11. <u> B </u> | 21. <u> D </u> |
| 2. <u> A </u> | 12. <u> D </u> | 22. <u> B </u> |
| 3. <u> B </u> | 13. <u> D </u> | 23. <u> A </u> |
| 4. <u> D </u> | 14. <u> E </u> | 24. <u> A </u> |
| 5. <u>DBAC</u> | 15. <u> B </u> | 25. <u> D </u> |
| 6. <u> A </u> | 16. <u> F </u> | 26. <u> D </u> |
| 7. <u> C </u> | 17. <u> C </u> | 27. <u> B </u> |
| 8. <u> C </u> | 18. <u> B </u> | 28. <u> G </u> |
| 9. <u> D </u> | 19. <u> C </u> | 29. <u> D </u> |
| 10. <u> C </u> | 20. <u> D </u> | 30. <u> C </u> |

WHMIS Final Quiz

– Appendix 3

1. What does WHMIS stand for?
 - a) Workplace Hazardous Material Information System
 - b) Work site Hazardous Material Information System
 - c) Workplace Health Material Identification System
2. Which one of these is on a workplace label?
 - a) the toxicity of the product
 - b) the first aid measures
 - c) the fire extinction method
 - d) the product name
3. What does MSDS stands for?
 - a) Material Standard Detail Sheet
 - b) Material Safety Data Sheet
 - c) Material Safety Detail Sheet
 - d) Material Safety Detail Supply
4. Which of these is a controlled product?
 - a) plants
 - b) gasoline
 - c) wood
 - d) dairy products
5. Which of these tells you what personal protective equipment you should wear?
 - a) product name
 - b) supplier name
 - c) first aid measures
 - d) precautionary measures
6. You have just filled a small can or jar with a product from a larger can or jar. Which of the following would you use to label your smaller can or jar?
 - a) a job label
 - b) a clear ID label
 - c) a workplace label
 - d) a supplier label
7. How often does an MSDS have to be updated?
 - a) once a year
 - b) every two years
 - c) every three years
 - d) every four years
8. How many WHMIS symbols are there?
 - a) 10
 - b) 9
 - c) 8
 - d) 7
9. Where would you look to find out more information on a hazardous product?
 - a) workplace label
 - b) MSDS
 - c) supplier label
 - d) home label
10. How many parts are there to an MSDS?
 - a) 3
 - b) 5
 - c) 9
 - d) 12
11. Who is responsible for making and providing a supplier label?
 - a) employer
 - b) worker
 - c) shipper
 - d) supplier
12. When working with WHMIS products you should always read:
 - a) the safety policy
 - b) the supplier trade secrets
 - c) the work site procedures
 - d) the MSDS and labels

13. If a product is swallowed, this means the product was?

- a) ingested
- b) inhaled
- c) absorbed
- d) abducted

14. Which one of these would be a chemical causing death or other serious (acute) health effects immediately?

- a) oxidizing
- b) corrosive
- c) poisonous
- d) reactive

15. By Canadian laws, who must train workers about WHMIS?

- a) employer
- b) worker
- c) supplier
- d) importers

16. What does corrosive mean?

- a) it will cause cancer
- b) it will explode if heated
- c) it will burn and destroy skin
- d) it will cause death if it is inhaled

17. Dangerously Reactive material means?

- a) it can explode if it is exposed to heat
- b) it can react if it is shocked or punctured
- c) it can react if it is mixed with other products
- d) all of the above

In the space provided, put the letter of the symbol with the appropriate name for that symbol.

18. Compressed gas



19. Flammable and combustible



20. Oxidizing



21. Poisonous



22. Toxic



23. Biohazardous



24. Corrosive



25. Dangerously reactive



Have students indicate the correct answer below.

- | | | | | |
|----------|-----------|-----------|-----------|-----------|
| 1. _____ | 6. _____ | 11. _____ | 16. _____ | 21. _____ |
| 2. _____ | 7. _____ | 12. _____ | 17. _____ | 22. _____ |
| 3. _____ | 8. _____ | 13. _____ | 18. _____ | 23. _____ |
| 4. _____ | 9. _____ | 14. _____ | 19. _____ | 24. _____ |
| 5. _____ | 10. _____ | 15. _____ | 20. _____ | 25. _____ |

WHMIS Final Quiz

– Correct Responses

Correct answers below.

- | | | | | |
|-------------|--------------|--------------|--------------|--------------|
| 1. <u>a</u> | 6. <u>a</u> | 11. <u>d</u> | 16. <u>c</u> | 21. <u>e</u> |
| 2. <u>d</u> | 7. <u>c</u> | 12. <u>d</u> | 17. <u>d</u> | 22. <u>f</u> |
| 3. <u>b</u> | 8. <u>c</u> | 13. <u>a</u> | 18. <u>h</u> | 23. <u>c</u> |
| 4. <u>b</u> | 9. <u>b</u> | 14. <u>c</u> | 19. <u>g</u> | 24. <u>b</u> |
| 5. <u>d</u> | 10. <u>c</u> | 15. <u>a</u> | 20. <u>d</u> | 25. <u>a</u> |