



Lesson Plan 19

Reading WHMIS Information on Product Labels

CLB Level(s): 5-6

CLB Skill(s): Reading, Speaking

Essential Skill(s): Document Use

Objective(s)	Audience
<ul style="list-style-type: none"> ■ To understand what WHMIS is and to recognize and understand WHMIS symbols ■ To understand what kind of information is available on a WHMIS label ■ To learn where to find information on a workplace label 	<ul style="list-style-type: none"> ■ Learners who will work with hazardous materials ■ Learners taking WHMIS training
Grammar/Language Focus	Time Required
<ul style="list-style-type: none"> ■ should, should do, should have done 	2 hours
Vocabulary	Materials
<ul style="list-style-type: none"> ■ WHMIS, supplier label, workplace or worksite label, flammable, toxic, face shield, goggles, rubber gloves, First Aid 	<ul style="list-style-type: none"> ■ Appendices 1.1, 1.2, 2.1, 2.2, 3.1, 3.2 ■ Overhead projector
Workplace Culture	
WHMIS regulations must be followed in the workplace.	



Learning Activities

Activity 1: Building WHMIS Vocabulary

1. Distribute Appendix I.1 and have learners review the vocabulary listed using a dictionary as needed.
2. Review the vocabulary as a class.
3. Discuss what is dangerous about the following: strong smell, fumes, burning sensation on the skin
4. Distribute Appendix I.2 and have learners go through the discussion questions in pairs or groups.
5. Review the answers as a class.

Activity 2: Learning about WHMIS Symbols and Workplace Labels

1. Display Appendix 2.1 on the overhead and have learners try to guess the meaning of each¹.
2. Distribute Appendix 2.2 and complete it as a group. This will help learners understand the importance of reading labels before handling hazardous materials. The symbols are helpful but the other information on the label is more important – how to stay safe and how to treat injuries.

*Note – Labels are Bilingual in Canada.

Activity 3: WHMIS Stories

This activity can be done individually, in pairs or as a class.

1. Distribute Appendix 3.1.
2. Scan the document as a group, noting that there are two short stories, questions and labels.
3. Have learners read the stories, either silently or practice reading aloud.
4. Have learners write down their answers and share them with a partner.
5. Review the answers (Appendix 3.2) with the entire group.

Additional and/or Extended Learning Activities

Teachers can use the Internet to find more WHMIS supplier labels and have students create more scenarios and questions for the class to answer.

See the following site for a quiz on WHMIS symbols:

<http://www.coop.engr.uvic.ca/engrweb/whmis/quizSymbols.html>



Learning Activities

Reflective Evaluation

- Learners read, recognize and understand WHMIS symbols.
- Learners are able to state what kind information is available on a WHMIS labels
- Learners can locate information on a WHMIS label

Debriefing/Wrap-up

Brainstorm some of the jobs represented among the learners on the board and map out the hazardous materials that are used in each. For example, housekeeping: harsh cleaning fluids; mechanics: flammable materials. Have students identify which symbols match each product.

¹ Definitions are meant for the teacher. The meaning of each symbol can be paraphrased for the learner if necessary.



Skill Descriptors	
Canadian Language Benchmarks Skill(s)	Essential Skill(s)
<p>Reading</p> <p>Global Performance Descriptors</p> <ul style="list-style-type: none"> ■ Can get specific details from everyday routine texts, such as a set of instructions, plain language news items, a notice from the gas company. (CLB 5) <p>Examples of Tasks and Texts (Instructions)</p> <ul style="list-style-type: none"> ■ Explains instructions of use and warnings on the labels of common commercial/industrial chemical products. (CLB 6) 	<p>Document Use</p> <p>(Complexity of the Document)</p> <ul style="list-style-type: none"> ■ Document is simple. Brief text combined with uncomplicated structure E.g., simple signs, labels, lists (ES 1) <p>(Complexity of Finding Information: Information search)</p> <ul style="list-style-type: none"> ■ Limited search using key words, numbers, icons or other visual characteristics (e.g. line, colour, shape) to locate information. (ES 1) <p>(Complexity of Finding Information: Thinking Process)</p> <ul style="list-style-type: none"> ■ Minimal inference is required. Information found in the document(s) is a literal match (i.e., identical) to the information required. (ES 1)
<p>Speaking</p> <p>What the Person Can Do (Interaction in a group)</p> <ul style="list-style-type: none"> ■ Participate in a small group discussion (CLB 5) 	<p>(Tasks)</p> <ul style="list-style-type: none"> ■ Reads safety labels (ES 1) ■ Reads signs and symbols, such as WHMIS (ES 1)

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Activity 1: Building WHMIS Vocabulary

Appendix 1.1

Name: _____

Date: _____

Which of the words in the list do you already know? If you can, write a synonym or explain the meaning of the word. If you are not sure of the meaning, ask a partner.

Use your dictionary for words that you do not know. The first word is done for you.

Hazardous

Oil

risky, dangerous

Materials

Paint

Acid

Thinner

Batteries

Chemicals

Cylinders for gas

Gasoline

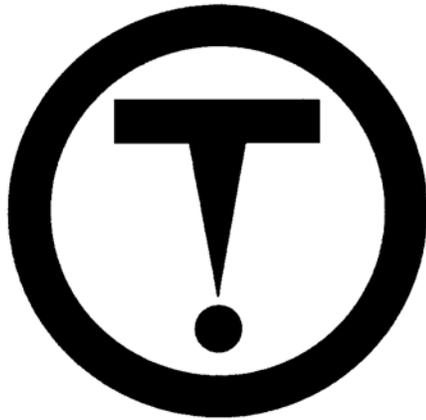
Glue

Name: _____

Date: _____

Discussion Questions

1. Have you ever worked with any hazardous materials?
2. What are warning labels?
3. What symbols have you seen? On what products?
4. Have you heard of Workplace Hazardous Materials Information System, or WHMIS? If you have, tell your group what you know.



Toxic Materials

These materials are poisonous. Their effects are not always quick, or if the effects are immediate, they are only temporary. The materials that do not have immediate effects, however, may still have very serious consequences such as cancer, allergies or reproductive problems.



Biohazardous Materials

These materials are organisms or the toxins they produce that can cause diseases in people or animals.



Corrosive Materials

Corrosive is the name given to materials that can cause severe burns to skin and other human tissues such as the eye or lung, and can attack clothes and other materials including metal.



Flammable Materials

Flammable means that the material will burn or catch on fire easily at normal temperatures (below 37.8 degrees C or 100 deg F).

¹ Definitions are from the Canadian Centre for Occupational Health and Safety website. More information regarding the effects of these materials can be found at their website: http://www.ccohs.ca/oshanswers/legisl/whmis_classifi.html.



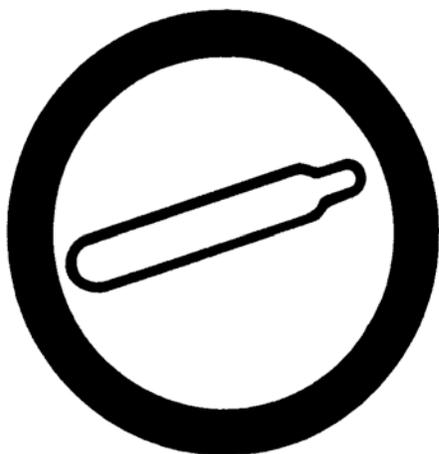
Poisonous Materials

These are materials that are very poisonous and immediately dangerous to life and health.



Oxidizing Materials

Oxidizers do not usually burn themselves but they will either help the fire by providing more oxygen or they may cause materials that normally do not burn to suddenly catch on fire (spontaneous combustion).



Compressed Gases

Any material that is normally a gas which is placed under pressure or chilled, and contained by a cylinder is considered to be a compressed gas.



Reactive Materials

This material can react very strongly and quickly with water to make a toxic gas. It will react with itself when it gets shocked (bumped or dropped) or if the temperature or pressure increases. Also, it can vigorously join to itself, break down, or lose extra water to become a more dense material.



Workplace
Hazardous Materials
Information System

WHMIS Logo

The logo is intended to be used widely and as fully as possible by any users or supporters of WHMIS to identify informational, promotional or educational material related to this national program. The logo should not be depicted on WHMIS labels nor MSDSs.

Activity 2: Learning about WHMIS and Workplace Labels² Appendix 2.2

1. WHMIS stands for _____

2. What is the purpose of WHMIS?

The purpose of WHMIS is to reduce injuries or diseases caused by exposure to hazardous materials used in the workplace.

3. All hazardous materials must have a “supplier label” or a “workplace label” on the container. Whenever a label is missing or damaged, the employee must tell a supervisor so that a new label can be made.³

4. Some information about labels:

- Supplier labels have a border that looks like this one.
- The dangers of working with the hazardous material are described.
- What to do if someone is injured, (First Aid)



² Definitions are from the Canadian Centre for Occupational Health and Safety website. More information regarding the effects of these materials can be found at their website:

http://www.ccohs.ca/oshanswers/legisl/whmis_classifi.html.

³ Sample label source: University of Waterloo Safety Office:

http://www.safetyoffice.uwaterloo.ca/whmis/supplier_labels.html (July 2008)

Activity 3: Fictional WHMIS Stories

Appendix 3.1

Story # 1

Martha has a job painting houses. She has to test paint to see if there is lead in it. She uses a sodium sulphite solution to test the paint. One day, Martha was pouring sodium sulphite solution and it splashed into her eyes.

Questions:

1. What should Martha have done to protect her eyes?
2. What should Martha do to treat her eyes?

Sodium Sulphite, Anhydrous

Irritating to eyes - Contact with acid liberates irritating sulphur dioxide gas - May cause allergic respiratory reaction.

Avoid contact with skin and eyes - Do not breathe dust - Use only in well ventilated area - Wear only suitable protective clothing, gloves and eye/face protection Wash thoroughly after handling.

In case of contact with eyes or skin, rinse immediately with plenty of water and seek medical advice.

See Material Safety Data Sheet

1-2-3 Chemicals Inc.
Waterloo, Ontario

Irritant pour les yeux - Au contact de l'acide dégage du gaz sulfureux irritant - Peut provoquer des réactions allergiques respiratoires.

Eviter le contact avec la peau et les yeux - Eviter de respirer les poussières - Utiliser seulement dans des zones bien ventilées - Porter un vêtement de protection approprié, des gants et un appareil de protection pour les yeux et le visage - Se laver soigneusement après manutention du produit.

En cas de contact avec les yeux ou la peau, laver immédiatement et abondamment avec l'eau et consulter un médecin.

Voir la Fiche Signalétique

Story # 2

Maurice is a maintenance worker in a plastics factory. One day, he was walking through the factory and noticed that a chemical was leaking from a barrel. He decided to get a rag and clean up the mess. He burned his hands.

Questions:

1. What should Maurice have done before he cleaned up the mess?
2. What information is on the workplace label about how to stay safe?

Acetone

Extremely Flammable

Keep away from all sources of ignition.

Wear butyl rubber gloves and chemical splash goggles

See MSDS

Answer Key

WHMIS stands for Workplace Hazardous Materials Information System

Story # 1

1. She should have worn a face shield.
2. She should rinse her eyes immediately with water and seek medical advice.

Story # 2

1. Maurice should have put on gloves, goggles and a mask in order to be able to approach the barrel to read the label.
2. The label says to avoid sparks or flames, and it says to wear rubber gloves and splash goggles.