

INSTRUCTOR NOTES

Apprenticeship Completion

Skill Builder: Key Words & Phrases, Flowcharts

During the activity pre/apprentices will:

- Discuss barriers to apprenticeship completion
- Review common elements of charts and graphs
- Locate information in complex forms

Skill Focus

- **Key Skill:** Document Use
- **Supporting Skill(s):** Numeracy (measurement & calculation)

Handouts

- Questions and Document Set (2 pages)

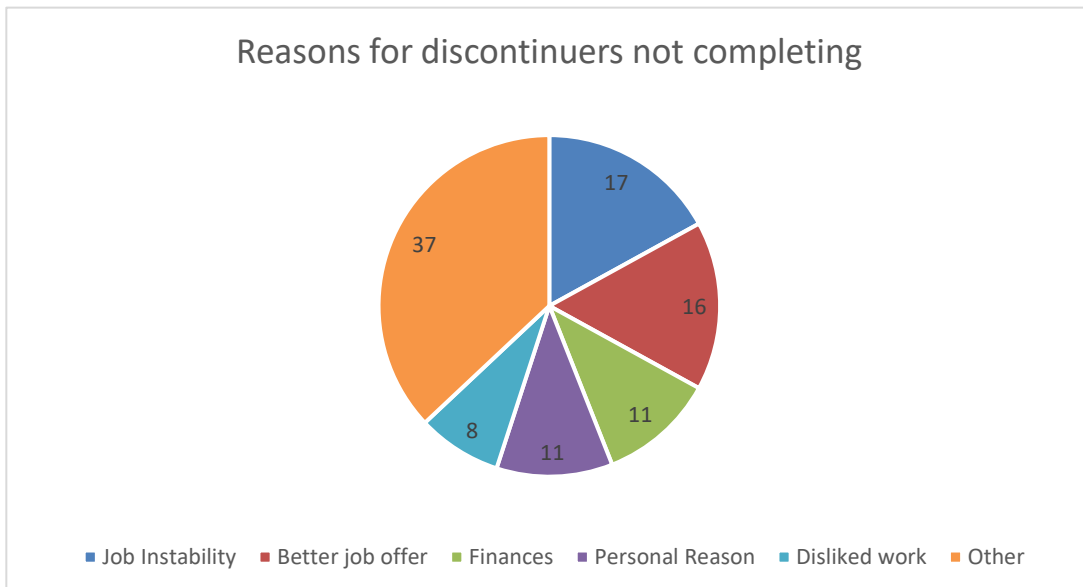
Talking Points

- In 2015 (last available data), 75% of registered apprentices completed their certification.
- Research proves that apprentices who complete their programs are more likely to find employment and earn higher income.
- Failure to complete apprenticeship costs everyone: apprentices, government and employers.
- Using charts in place of text is a quick way to show detailed information at a glance.
- Need more help? Use the Skill Builders identified in the Handout.

Distribute the Handout.

ANSWER KEY: Apprenticeship Completion
Skill Builders: Key Words & Phrases, Flowcharts

1. If the total number of survey respondents was 28,469, how many people discontinued their program during 2011- 2013? **12,099 (42.5% of 28,469)**
2. What percentage of those apprentices who discontinued their program went on to complete in 2015? How many people is that? **5% completed in 2015. 604 people.**
3. What period of time has elapsed between the pie charts? **2 years (2013-2015)**
4. What data is shown on each of the X and Y axes in the bar chart?
X: percentage of responders, Y: reasons given for discontinuing.
5. The values in the bar chart do not add up to 100 percent. What is the approximate percentage of missing values in the bar graph? Why are the missing values excluded from the bar graph? **The missing values represent approximately 11% of the total reasons discontinuers do not complete apprenticeship training. Missing values represent other unspecified reasons for discontinuers not completing apprenticeship training and are likely too small to report on a bar chart (each reason being less than 1%).**
6. Redraw the bar graph as a pie chart. Represent all reasons of more than 5% by their own section. Represent all other reasons including any missing values as a single section labelled "other". Label the chart section including text and percentages. Use whole numbers for all values.
5 reasons are represented as more than 5%



Handouts: Apprenticeship Completion (2 pages)
Skill Builders: Key Words & Phrases, Flowcharts

IN THE WORKPLACE: Apprenticeship completion is a serious issue. While the experience of every apprentice is unique, recognizing frequently cited barriers to completion and preparing for how to address them if they arise, is a key to attaining certification.

Refer to the **Apprenticeship Status** chart and graph to locate the answers to the following questions.

1. If the total number of survey respondents was 28,469, how many people discontinued their program during 2011- 2013?

2. What percentage of those apprentices who discontinued their program went on to complete in 2015? How many people is that?

3. What period of time has elapsed between the two pie charts?

4. What data is shown on each of the X and Y axes in the bar chart?

5. The values in the bar chart do not add up to 100 percent. What is the approximate percentage of missing values in the bar graph? Why are the missing values excluded from the bar graph?

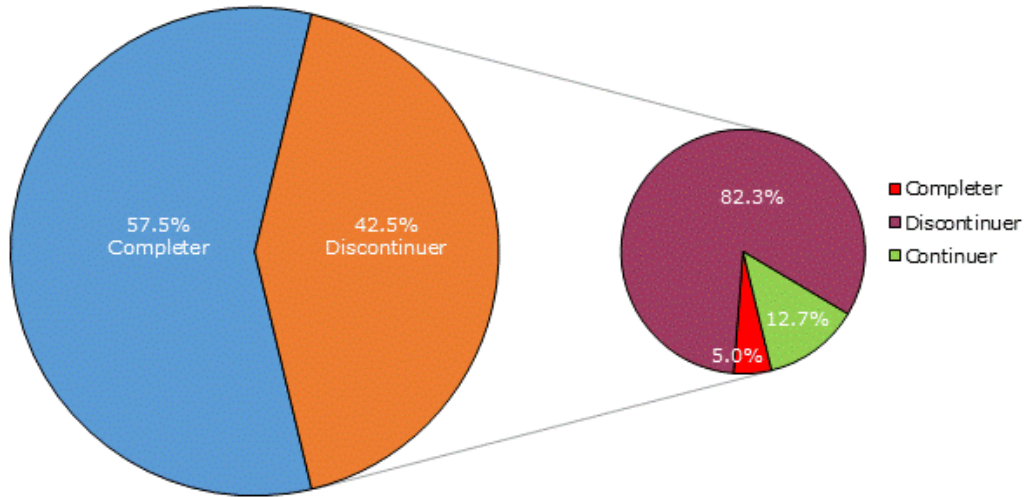
6. Redraw the bar graph as a pie chart. Represent all reasons of more than 5% by their own section. Represent all other reasons including any missing values as a single section labelled "other". Label the chart section including text and percentages. Use whole numbers for all values.

Apprenticeship Status

Apprentice status (2011 to 2013) and apprentice status of discontinuers in 2015, Canada

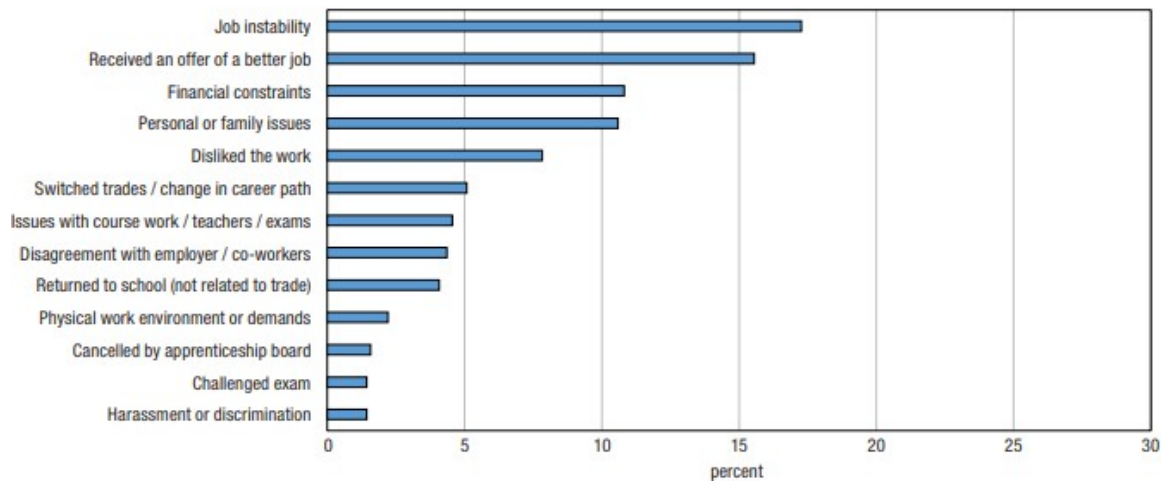
Apprentice status (2011 to 2013)

Apprentice status of discontinuers (2015)



Source: Statistics Canada, National Apprenticeship Survey (NAS), 2015.

Main reason reported by discontinuers for not completing their apprenticeship, Canada



Frank, K. & Jovic, E. (2015). Apprenticeship status 2011-2013 [Image]. In National apprenticeship survey 2015. (p. 14). Ottawa, ON: Statistics Canada

Frank, K. & Jovic, E. (2015). Main reason reported by discontinuers [Image]. In National apprenticeship survey 2015. (p. 24). Ottawa, ON: Statistics Canada

INSTRUCTOR NOTES

Flowchart: Backhoe Operation
Skill Builder: Flowcharts

During the activity pre/apprentices will:

- Review common elements of flowcharts
- Recognize how the display of information in flowcharts can simplify and clarify complex processes

Skill Focus

- **Key Skill:** Document Use
- **Supporting Skill(s):** Thinking (planning & organizing)

Handouts

- Questions and Document Set (2 pages)

Talking Points

- Flowcharts are used to make complex processes easier to understand and to show the “big picture” at a glance.
- Flowcharts usually flow from left to right or top to bottom.
- Flowcharts typically include shapes, and use a minimum of text.
- Flowcharts clarify the order in which tasks should be completed and may include roles and responsibilities related to each task.
- Need more help? Use the Skill Builder identified in the Handout.

Distribute the Handout.

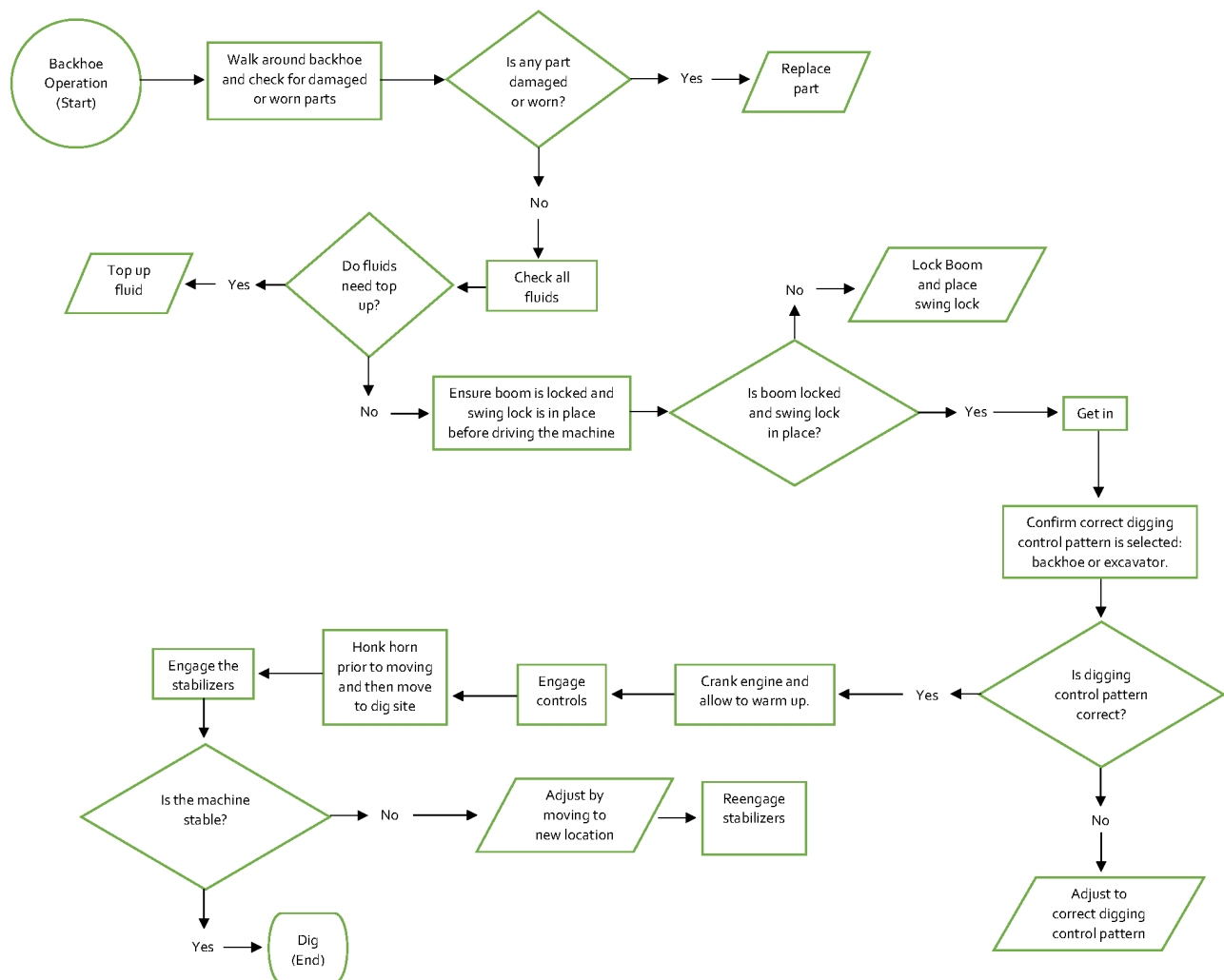
ANSWER KEY: Flowchart: Backhoe Operation Skill Builder: Flowcharts

Answers may vary but must be logical and contain proper usage of symbols to be considered correct.

Note: Possible decision points include:

- Need to replace parts
- Need to top up fluids
- Need to adjust controls
- Need to move backhoe to stabilize
- Need to adjust boom and swing lock

An example flowchart is shown for your reference.



HANDOUT: Flowchart: Backhoe Operation (2 pages)
Skill Builder: Flowcharts

IN THE WORKPLACE: A common use for flowcharts is to display processes at a glance and identify steps in those processes where decisions may be required.





Use the information on backhoe operation to create a flowchart about starting a backhoe. Use the symbols on the next page to help you.

- Make sure the chart is logical and that you can explain why you ordered the steps as you did.
- You must include at least 3 decision points showing YES and NO options
- The flowchart must have a start and a finish
- Use the appropriate shapes for each step in the flowchart
- Label the flowchart

Backhoe Operation: Backhoes are designed to do one thing: dig. But that does not mean that anyone can just jump in and safely start digging. There are a number of steps that need to be completed to ensure safe operation. Many of the steps are related to the condition of the machine itself. Others have to do with ensuring that the controls are set to the appropriate task.

1. Walk around backhoe and check for damaged or worn parts. Replace as needed.
2. Check all fluids (fuel, oil, hydraulic fluid, DEF, and coolant/anti-freeze). Top up as needed.
3. Ensure the boom is locked and swing lock is in place before driving the machine
4. Get in.
5. Confirm correct digging control pattern is selected: backhoe or excavator digging. Adjust controls to suit task if required.
6. Crank engine and allow to warm up.
7. Engage controls.
8. Honk the horn prior to moving the machine to alert those nearby and then move to dig site.
9. Engage the stabilizers to prevent the machine from rocking or tipping. If unable to stabilize adjust location.
10. Reengage stabilizers.
11. Dig

Common flowchart symbols:

Symbol	Name	What it means
	Start/Stop	A circle, oval or rounded rectangle starts or ends the process.
	Step/Task	A rectangle means a step in the process or a task. Slanted rectangles usually mean sub-steps or sub-processes.
	Process Direction	Arrows and lines indicate the order of the steps.
	Decision Point	A diamond shape means that you need to make a choice or decision.

INSTRUCTOR NOTES

Hazard Assessment

Skill Builders: Key Words & Phrases, Entry Forms

During the activity pre/apprentices will:

- Review common elements of forms used to assess and report hazards
- Enter information in complex forms

Skill Focus

- **Key Skill:** Document Use
- **Supporting Skill(s):** Thinking (critical thinking)

Handouts

- Questions and Document Set (2 pages)

Talking Points

- Mistakes in hazard assessments can result in injuries and fatalities.
- The purpose of the assessment is twofold. 1) identify any hazard and related risk, and 2) identify and put into place ways to control the risk.
- Reporting risk prevents future accidents and resulting injury and downtime.
- Most hazard assessment forms use similar structure and categories.
- Need more help? Use the Skill Builders identified in the Handout.

Distribute the Handout.

ANSWER KEY: Hazard Assessment
Skill Builders: Key Words & Phrases, Entry Forms

1. What date format is required? **D/M/Y**
2. Who should the completed form be given to? **Supervisor**
3. For each identified hazard, identify an appropriate control from the options. **Possible answers include the following. Other answers should be considered correct if the pre/apprentice can provide a direct link.**
 - a) Confined space: **Confined Space Entry Procedures**
 - b) Animal droppings: **Respirator**
 - c) Unsafe equipment: **There is no control provided. A note needs to be made in the comment section.**
Accept Lockout tag out procedure. Procedure may be required when reporting unsafe equipment or to indicate that machinery/equipment is non-operational due to unsafe condition and/or imminent repair.
 - d) Sharp objects: **Protective gloves**
4. Complete the assessment form to identify any hazards in the room you are currently working in (or an outside space or class shop if available). Work with a partner or in a small group. Compare your results with another team who assessed the same space.

Answers will vary depending on the space assessed. The resulting discussion should provide answers to the following questions:

- a) **Was it possible to complete all sections of the form?**
- b) **Were the hazards correctly identified?**
- c) **Is there a plan for controlling the hazard in place?**

HANDOUTS: Hazard Assessment (2 pages)
Skill Builders: Key Words & Phrases, Entry Forms

IN THE WORKPLACE: Assessing and reporting on hazards is a common task across trades. The ability to do so accurately is important as the reports impact the future safety of workers. Workers complete assessments prior to the start of each new task or when conditions have changed. Always check your work area for hazards prior to starting work as and check the condition of all tools and equipment.

Read the **Hazard Assessment Form** to complete the tasks and locate answers to the questions. Write the answers in the space provided and complete the form as requested.

1. What date format is required?

2. Who should the completed form be given to?

3. For each identified hazard, identify an appropriate control from the options.

a) Confined space: _____

b) Animal droppings: _____

c) Unsafe equipment: _____

d) Sharp objects: _____

4. Complete the assessment form to identify any hazards in the room you are currently working in (or an outside space or class shop if available). Work with a partner or in a small group. Compare your results with another team who assessed the same space.

HAZARD ASSESSMENT FORM				
This purpose of this assessment is to identify hazards associated with your work tasks, and to ensure hazards are controlled prior to starting work. Provide completed copies of this form to your supervisor. For assistance contact the Occupational Health and Safety Coordinator.				
WORK LOCATION:		Work Crew:		
DESCRIPTION OF JOB OR TASK:				
SUPERVISOR IN CHARGE:		ASSESSMENT DATE (D/M/Y):		
POTENTIAL HAZARDS (Check all that apply and add others as required)				
<input type="checkbox"/> Confined Space	<input type="checkbox"/> Extreme heat / cold	<input type="checkbox"/> Mould	<input type="checkbox"/> Obstructions	<input type="checkbox"/> Fall hazards
<input type="checkbox"/> Working Alone	<input type="checkbox"/> Noise	<input type="checkbox"/> Electrical	<input type="checkbox"/> Slip/Trip Hazards	<input type="checkbox"/> Unsafe tools
<input type="checkbox"/> Awkward postures or lifting	<input type="checkbox"/> Asbestos	<input type="checkbox"/> Lighting	<input type="checkbox"/> Mechanical	<input type="checkbox"/> Unsafe equipment
<input type="checkbox"/> Hazardous gases/chemicals	<input type="checkbox"/> Sharp objects	<input type="checkbox"/> Animal droppings	<input type="checkbox"/> Entrapment	<input type="checkbox"/>
OTHER HAZARDS OR INFORMATION:				
REQUIRED HAZARD CONTROLS (Check all that apply and add additional controls in the available space).				
Lockout tag out procedure	<input type="checkbox"/>	Mechanical ventilation	<input type="checkbox"/>	
Hard hat	<input type="checkbox"/>	Ladders for safe access and egress	<input type="checkbox"/>	
Protective gloves	<input type="checkbox"/>	Mechanical aids (dolly etc.)	<input type="checkbox"/>	
Respirator	<input type="checkbox"/>	Atmospheric testing	<input type="checkbox"/>	
Eye protection	<input type="checkbox"/>	Emergency or rescue procedure	<input type="checkbox"/>	
Protective footwear	<input type="checkbox"/>	Scaffolds (Inspected and tagged)	<input type="checkbox"/>	
Hearing protection	<input type="checkbox"/>	Work Permit	<input type="checkbox"/>	
Coveralls	<input type="checkbox"/>	Additional training	<input type="checkbox"/>	
Pedestrian Barricades	<input type="checkbox"/>	Machine guarding	<input type="checkbox"/>	
Stand by worker	<input type="checkbox"/>	Check in protocol with office	<input type="checkbox"/>	
Confined Space Entry Procedures	<input type="checkbox"/>	Fire extinguisher	<input type="checkbox"/>	
Additional Lighting (e.g. Flashlight)	<input type="checkbox"/>	Fall protection	<input type="checkbox"/>	
Communication device	<input type="checkbox"/>	Other	<input type="checkbox"/>	
Additional Controls or Comments (Use back of page if necessary):				

INSTRUCTOR NOTES

Incident Report

Skill Builders: Key Words & Phrases, Entry Forms

During the activity pre/apprentices will:

- Review common elements of forms used to report incidents
- Enter information into complex forms

Skill Focus

- **Key Skill:** Document Use
- **Supporting Skill(s):** Reading

Handouts

- Questions and Document Set (4 pages)

Talking Points

- Entry forms are widely used in the workplace to collect or retrieve information (e.g., job applications, incident reports, invoices, etc.).
- Recognizing that entry forms share a common structure makes it more likely that you will fill them out correctly.
- Need more help? Use the Skill Builders identified in the Handout.

Distribute the Handout.

ANSWER KEY: Incident Report
Skill Builders: Key Words & Phrases, Entry Forms

Answers may vary but the following information should be included. Have pre/apprentices compare their completed reports with partners.

INCIDENT REPORT

GENERAL INFORMATION			
Name of Person Completing Report:			
Name of Injured or Affected Person:			<input checked="" type="checkbox"/> Employee <input type="checkbox"/> Customer
Incident Date: June 2 /17	Time of Occurrence:	Facility:	
Department:		Location (specific): Wakaw	
INCIDENT TYPE			
<input checked="" type="checkbox"/> Slip/Trip/Fall	<input type="checkbox"/> Cut	<input type="checkbox"/> Property Damage	
<input type="checkbox"/> Personal Illness	<input type="checkbox"/> Struck by	<input type="checkbox"/> Property Theft	
<input type="checkbox"/> Ergonomic	<input checked="" type="checkbox"/> Caught in	<input type="checkbox"/> Fire / Flood Hazardous Spill / Leak	
<input type="checkbox"/> Inappropriate Conduct	<input type="checkbox"/> Chemical Exposure	<input type="checkbox"/> Other:	
<input type="checkbox"/> Violence / Threat / Harassment	<input type="checkbox"/> Biohazard Exposure		
OTHER PERSONNEL INVOLVED AND WITNESSES			
	Name	Department	Phone / Contact
1	Bradley Davidson	Supervisor	
2			
3			
BASIC DESCRIPTION OF OCCURRENCE			
<div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <ol style="list-style-type: none"> 1. Worker was feeding gravel into loader. 2. Machine was switched off and supervisor ordered work to clear. 3. Machine was turned back on while worker still clearing. 4. Worker traveled through the conveyor. 5. Worker then fell 12 feet. </div> <p style="text-align: right;"><input type="checkbox"/> See Attached Documentation</p>			
FIRST AID / MEDICAL RESPONSE			
First Aid Provided: <input type="checkbox"/> Yes <input type="checkbox"/> No		Ambulance Involved: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
First Aider:		Sent to Hospital: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<input type="checkbox"/> Emergency First Aider <input type="checkbox"/> Standard First Aider		Medical Facility:	
<input type="checkbox"/> Security <input type="checkbox"/> Other:		Time Off Site:	
Details of the first aid that was provided:			

SEE OVER

Rev. 201708

Incident Report

CAUSES THAT LED TO THE INCIDENT

- 1. Supervisor did not follow procedure.
- 2. Supervisor did not perform visual check before restarting machine.

ACTIONS TAKEN TO PREVENT RECURRENCE

- (Not mentioned in the article but assumed following safe work practices)
- 1. All workers were refreshed on correct procedures.
 - 2. Subsequent court action and fine would be a deterrent.
 - 3. Supervisor no longer with company.

REPORTED TO

Authority	Name	Date	Case / Ref #:
Supervisor / Director / Dean			N/A
Human Resources			N/A
Workers' Compensation Board			
Police			

REPORT COMPLETED BY

Name	Position	Date	Time
Enter own name and sign			

SIGNATURE:

SENIOR MANAGEMENT REVIEW

Name	Position	Date

SIGNATURE:

Send completed original form to Occupational Health & Safety
by interoffice mail or email to safety@organization.ca

HANDOUT: Incident Report (4 pages)
Skill Builders: Key Words & Phrases, Entry Forms

IN THE WORKPLACE: Workers use incident reports to document the exact details of an unusual event that occurred at work, such as an injury to a worker or customer. Accuracy is important as the report may form part of a legal proceeding.

The article, **Site supervisor fined following workplace incident at gravel crushing pit**, describes a real workplace incident in Saskatchewan.

Use the information in the article to complete the **Incident Report** as if you had observed the accident. Complete as much of the report as you can.

Use point form to complete the following sections:

- Basic description of the occurrence
- Causes that led to the incident
- Actions taken to prevent recurrence (NOTE: this information is not explicitly provided in the article so use your best judgement and experience)

INCIDENT REPORT

GENERAL INFORMATION		
Name of Person Completing Report:		
Name of Injured or Affected Person:		<input type="checkbox"/> Employee <input type="checkbox"/> Customer
Incident Date:	Time of Occurrence:	Facility:
Department:		Location (specific):

INCIDENT TYPE		
<input type="checkbox"/> Slip/Trip/Fall	<input type="checkbox"/> Cut	<input type="checkbox"/> Property Damage
<input type="checkbox"/> Personal Illness	<input type="checkbox"/> Struck by	<input type="checkbox"/> Property Theft
<input type="checkbox"/> Ergonomic	<input type="checkbox"/> Caught in	<input type="checkbox"/> Fire / Flood Hazardous Spill / Leak
<input type="checkbox"/> Inappropriate Conduct	<input type="checkbox"/> Chemical Exposure	<input type="checkbox"/> Other:
<input type="checkbox"/> Violence / Threat / Harassment	<input type="checkbox"/> Biohazard Exposure	

OTHER PERSONNEL INVOLVED AND WITNESSES		
Name	Department	Phone / Contact
1		
2		
3		

BASIC DESCRIPTION OF OCCURRENCE
<input type="checkbox"/> See Attached Documentation

FIRST AID / MEDICAL RESPONSE	
First Aid Provided: <input type="checkbox"/> Yes <input type="checkbox"/> No	Ambulance Involved: <input type="checkbox"/> Yes <input type="checkbox"/> No
First Aider:	Sent to Hospital: <input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Emergency First Aider <input type="checkbox"/> Standard First Aider	Medical Facility:
<input type="checkbox"/> Security <input type="checkbox"/> Other:	Time Off Site:
Details of the first aid that was provided:	

SEE OVER

Rev. 201708

Incident Report

CAUSES THAT LED TO THE INCIDENT

CAUSES THAT LED TO THE INCIDENT

ACTIONS TAKEN TO PREVENT RECURRENCE

ACTIONS TAKEN TO PREVENT RECURRENCE

REPORTED TO

Authority	Name	Date	Case / Ref #:
Supervisor / Director / Dean			N/A
Human Resources			N/A
Workers' Compensation Board			
Police			

REPORT COMPLETED BY

Name	Position	Date	Time

SIGNATURE:

SENIOR MANAGEMENT REVIEW

Name	Position	Date

SIGNATURE:

**Send completed original form to Occupational Health & Safety
by interoffice mail or email to safety@organization.ca**

Site supervisor fined following workplace incident at gravel crushing pit.

Failure to follow safety protocols at a gravel crushing pit near Wakaw led to serious injuries for one man last year, and now, fines against the supervisor on shift at the time.

Bradley Davidson was fined a total of \$4,900 in Prince Albert Provincial Court Friday in connection with the workplace incident, which happened June 2, 2017. Davidson, 28, pleaded guilty to one violation under the province's Occupational Health and Safety Act.

Davidson was employed for nine years with the same company at the time of the incident, and was supervising operations at the site, located about seven kilometres outside Wakaw. The company was not charged in connection with the incident.

At the time of the accident, a worker on the gravel crushing crew was working at the site feeding gravel into the conveyor with a loader, when the machine was switched off and he was ordered to clear debris. While still up in the air on the conveyor, Davidson started up the machine, failing to do a visual check and ensure the man had safely cleared the area.

Unable to get anyone's attention once the machine started up and knowing that he was going to be pushed through the conveyor, the man decided to go feet first, but caught his arm on a roller, breaking it, before continuing to travel through the machine. The momentum of the conveyor continued to push him through three more levels of the conveyor before he fell some 12 feet to the ground.

Along with a broken arm, the man suffered a split pelvis, deflated lung, a C-1 spinal fracture and broken ribs. He spent 17 days in hospital following the incident and seven months off work.

Miraculously, he was able to return to work, and his lawyer said he continues to be good friends with Davidson despite the workplace incident. The lawyer also said workplace incidents are taken seriously, and asked for a fine totaling \$10,500 in court last week, and that "This is a situation where Mr. Davidson simply didn't follow the procedures that he was supposed to follow, that he was trained to follow," she added.

Court heard Friday that Davidson no longer works for the company.

Tebbutt, C. (Sept. 20, 2018). Site supervisor fined following workplace incident at gravel crushing pit. paNOW. <https://panow.com/2018/09/10/site-supervisor-fined-following-workplace-incident-at-gravel-crushing-pit/>

INSTRUCTOR NOTES

Invoice 3

Skill Builders: Entry Forms, Tables

During the activity pre/apprentices will:

- Review common elements of invoices
- Locate information in complex forms

Skill Focus

- **Key Skill:** Document Use
- **Supporting Skill(s):** Numeracy (measurement & calculation)

Handouts

- Questions and Document Set (3 pages)

Talking Points

- Paperwork – either paper or digital – is part of most tradesperson’s work.
- Mistakes in order forms, invoices and log books can result in costly errors.
- Being able to quickly and accurately locate the information you need in a form can save time and money.
- Most forms use similar structure and categories.
- Need more help? Use the Skill Builders identified in the Handout.

Distribute the Handout.

ANSWER KEY: Invoice 3
Skill Builders: Entry Forms, Tables

1. What is the invoice number? **9-23**
2. When was the invoice issued? **October 23, 2018**
3. What is the last date payment should be made?
November 22, 2018 (30 days from October 23)
4. What 3 ways can payment be made? **Credit card, billed to account, or by cheque**
5. If paying by cheque, what name should the cheque be issued to? **RCP Contractors**
6. What is the full name of the person who placed the order? **Chris Adam**
7. What is the product number? **3127X3**
8. What is the % of tax being charged? **13%**
9. If the apprentice's time is billed out at \$25 an hour, how much of the total labour charge is for the journeyperson's time? **\$1,120.00**
10. The company offers a discount to educational institutions on invoices over \$8,000 before tax. Is the university eligible for the discount? How do you know?
No. It is an educational institution but before tax the invoice is less than \$8,000.

HANDOUTS: Invoice 3 (3 pages)
Skill Builders: Entry Forms, Tables

IN THE WORKPLACE: Accurately entering and verifying information in complex forms such as invoices and work orders is a common task across trades. Errors in costs, hours worked, and materials to be delivered can result in significant losses to the company in time and hours worked.

Read the **RyCan Contractors Invoice** to complete the tasks and locate answers to the questions. Write the answers in the space provided or **highlight** the information on the invoice.

1. What is the invoice number?

2. When was the invoice issued?

3. What is the last date payment should be made?

4. What 3 ways can payment be made?

5. If paying by cheque, what name should the cheque be issued to?

6. What is the full name of the person who placed the order?

7. What is the product number?

8. What is the % of tax being charged?

9. If the apprentice's time is billed out at \$25 an hour, how much of the total labour charge is for the journey person's time?

10. The company offers a discount to educational institutions on invoices over \$8,000 before tax. Is the university eligible for the discount? How do you know?

RyCan Contractors

123 Market Street
 Kamloops, BC V1S 1A4
 Phone: 898-123-1234

INVOICE

INVOICE # 9-23
 DATE: OCT/23/2018

TO:
 Chris Adam
 Thompson College
 805 TC Drive
 Kamloops, BC, V2C 028
 Phone: 250-555-5555

SHIP TO:
 Same as ordered.

COMMENTS OR SPECIAL INSTRUCTIONS:

Removal of existing toilets and replacement with low-flo high-efficiency models.

SALESPERSON	P.O. NUMBER	REQUISITIONER	SHIPPED VIA	TERMS
J.B. Bowen	Same as invoice #	C. Adam	NA	30 days from invoice date

QUANTITY	DESCRIPTION	UNIT PRICE	TOTAL
7	Afwell millennial commercial toilets #3127X3 (white)	763.00	5,341.00
7	Replacement batteries	27.00	189.00
7	Recycling/disposal fees	60.00	420.00
8	Labour: Journeyperson + apprentice (8 hours)	165.00	1,320.00
SUBTOTAL			7270.00
SALES TAX			945.10
SHIPPING & HANDLING			NA
TOTAL DUE			8,215.10

Payment may be made by credit card, billed to account, or by cheque.
 Make all cheques payable to RCP Contractors.
 If you have any questions concerning this invoice, please contact us.

THANK YOU for your business!

INSTRUCTOR NOTES

Line Drawings
Skill Builder: Technical Drawings

During the activity pre/apprentices will:

- Convert between imperial and metric systems
- Navigate technical drawings

Skill Focus

- **Key Skill:** Document Use

Handouts

- Questions and Document Set (2 pages)

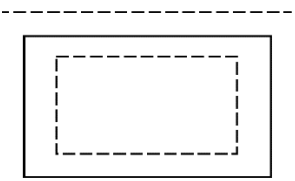
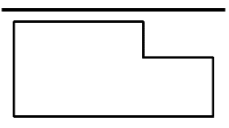
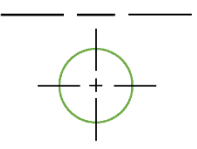
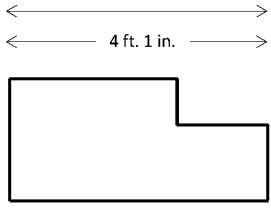
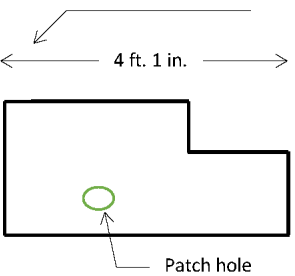
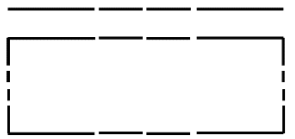
Talking Points

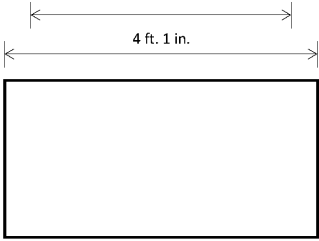
- Contractors, estimators, builders and tradespersons all rely on technical drawings for the information they need to construct and/or manufacture a product.
- Basic math errors in can result in costly materials and lost-time time mistakes.
- While electronics can help with most calculations, it is important to be able to recognize when an answer does not look right as information may have been inputted incorrectly.
- Need more help? Refer to the Skill Builders identified in the Handout.
- You may also use your phone or a calculator to help with the calculations.

Distribute the Handout.

ANSWER KEY: Line Drawings
Skill Builders: Technical Drawings

1. See below.

Line #	Example	Def.	Definition
1		C	Hidden line: Short dashed lines use to show nonvisible surfaces. Usually shows as medium thickness.
2		G	Object or Visible line: Thick dark line use to show outline of an object, visible edges and surfaces.
3		A	Centre Line: Long and short dash lines. Usually indicates centre of holes, circles and arcs. Line is thin and dark.
4		B	Dimension Line: Thin and dark lines use to show the size (span) of an object with a numeric value. Usually terminates with arrowheads or tick markings. Often shown with a break in the middle where the measurement will be noted.
5		E	Leader Line: Medium line with arrowhead to show notes or to label for size or special information about a feature.
6		D	Property Line: Long dashes alternating with two short dashes. This line is used to show the actual legal line of the property.

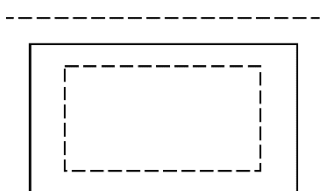
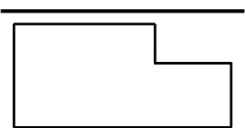
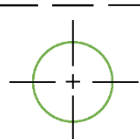
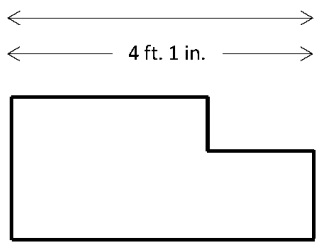
<p>7</p>		<p>F</p>	<p>Extension Line: Thin and dark line used to show the start and end of a dimension. The extension line does not touch the object and it ends just past the head of the arrow.</p>
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2. Answers will vary.

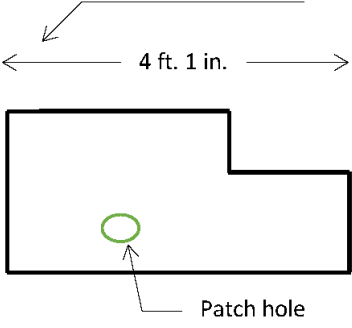
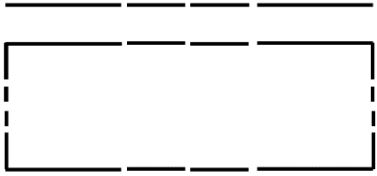
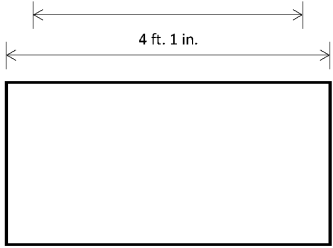
HANDOUTS: Line Drawings (2 pages)
Skill Builders: Technical Drawings

IN THE WORKPLACE: Contractors, estimators, builders and tradespersons all rely on technical drawings for the information they need to safely and accurately build and repair large and small construction.

- Match the numbered images on the left with the correct definition on the right.

Line #	Example	Def.
1		
2		
3		
4		

Def.	Definition
A	Centre Line: Long and short dash lines. Usually indicates centre of holes, circles and arcs. Line is thin and dark.
B	Dimension Line: Thin and dark lines use to show the size (span) of an object with a numeric value. Usually terminates with arrowheads or tick markings. Often shown with a break in the middle where the measurement will be noted.
C	Hidden line: Short dashed lines use to show nonvisible surfaces. Usually shows as medium thickness.
D	Property Line: Long dashes alternating with two short dashes. This line is used to show the actual legal line of the property.
E	Leader Line: Medium line with arrowhead to show notes or to label for size or special information about a feature.
F	Extension Line: Thin and dark line used to show the start and end of a dimension. The extension line does not touch the object and it ends just past the head of the arrow.
G	Object or Visible line: Thick dark line use to show outline of an object, visible edges and surfaces.

<p>5</p>		
<p>6</p>		
<p>7</p>		

2. Locate a complex line drawing in your technical training materials and identify as many of the line types as you can. If there are differences in how the lines are used, what do you think the reason for that is?

INSTRUCTOR NOTES Log Book: HEO
Skill Builder: Entry Forms**During the activity pre/apprentices will:**

- Review the importance of tracking time
- Locate and enter information in complex forms
- Make basic calculations

Skill Focus

- **Key Skill:** Document Use
- **Supporting Skill(s):** Numeracy

Handouts

- Questions and Document Set (3 pages)

Talking Points

- Paperwork – either paper or digital – is part of most tradesperson’s work.
- Mistakes in log books, order forms and invoices can result in costly errors.
- The ability to specifically account for time spent on individual activities is essential to staying on budget.
- Most forms use similar structure and categories.
- Need more help? Use the Skill Builder identified in the Handout.

Distribute the Handout.

ANSWER KEY: Log Book: HEO
Skill Builder: Entry Forms

- Under the subheading "From", in what order should the date information be entered?
Day, month, year
- In what month was the excavator entry completed? **September.**
- The period of operation for the backhoe was incorrectly recorded and actually ended on June 11, 2015. Correct the entry using the boxes provided below.

	Type of Machine	Date			Date			Period of Operation		
Page	Model and Size	From			To			days/weeks/months		
3	Backhoe, Caterpillar	15	09	14	11	06	15	6	3	7

- Enter the correct number of months to complete entry 5. **5**
- Complete the "To" line for entry 6. **18**
- On which machine did the operator complete the greatest number of days?
Wheel skidder.
- On which machine did the operator complete the fewest number of days?
Loader.
- Add a 7th entry using the following information:
 - Same equipment as first entry
 - Started work 14 days after entry 6 completed
 - Worked 6 months and 3 days

6	Wheel skidder, Hitachi	07	05	17	01	08	18	4	3	14
7	Excavator, Hitachi	15	08	18	18	02	19	3	0	6

HANDOUT: Log Book: HEO (3 pages)
Skill Builder: Entry Forms

IN THE WORKPLACE: Accurately entering and verifying information in complex forms such as log books, invoices and work orders is a common task across trades. Tracking time has direct connection to a range of tasks including machinery use related to certification requirements and to monitoring project costs. Accuracy is important when using log books as they are considered to be legal documents.

Refer to the **Log Book Index** to complete the tasks and locate answers to the questions. Write the answers in the spaces provided or **highlight** the information in the log book.

- Under the subheading "From" in what order should the date information be entered?

- In what month was the excavator entry completed?

Use the following information to answer the next questions:

- "Period of Operation" refers to the total number of days, full weeks and full months the activity occurred in.
- The period of operation for the backhoe was incorrectly recorded and actually ended on June 11, 2015. Correct the entry using the boxes provided below.

	Type of Machine	Date			Date			Period of Operation		
Page	Model and Size	From			To			days/weeks/months		

- Enter the correct number of months to complete entry 5.

- Complete the "To" line for entry 6.

6. On which machine did the operator complete the greatest number of days?

7. On which machine did the operator complete the fewest number of days?

8. Add a 7th entry using the following information:

- a. Same equipment as first entry
- b. Started work 14 days after entry 6 was completed
- c. Worked 6 months and 3 days

Operators Log Book Index

	Type of Machine	Date			Date			Period of Operation		
Page	Model and Size	From			To			days/weeks/months		
1	<i>Excavator, Hitachi</i>	26	04	14	14	09	14	5	2	4
2	<i>Backhoe, Caterpillar</i>	15	09	14	06	11	15	1	3	13
3	<i>Loader, John Deere</i>	15	11	15	30	03	16	1	2	4
4	<i>Grader, Caterpillar</i>	10	04	16	18	11	16	1	1	7
5	<i>Dozer, Hitachi</i>	20	11	16	23	04	17	3	0	
6	<i>Wheel skidder, Hitachi</i>	07	05	17	01	08		4	3	14
7										
8										
9										
10										
11										
12										

Bow Valley College. (2020). Operators Log Book Index. [Table]. Calgary, Canada: Author

INSTRUCTOR NOTES

Maintenance Schedule: Sprinkler
Skill Builder: Entry Forms, Tables & Lists

During the activity pre/apprentices will:

- Recognize scheduled maintenance is an essential part of preventing machine breakdown
- Locate information in forms
- Create work schedules

Skill Focus

- **Key Skill:** Document Use
- **Supporting Skill(s):** Numeracy

Handouts

- Questions and Document Set (3 pages)

Talking Points

- Poor maintenance of tools and machinery can result in costly errors.
- Scheduling maintenance according to employer and manufacturers' recommendations will reduce breakdown.
- Most forms used for scheduling use similar structure and categories.
- Need more help? Use the Skill Builder identified in the Handout.

Distribute the Handout.

ANSWER KEY: Maintenance Schedule: Sprinkler
Skill Builder: Entry Forms, Tables & Lists

1. Which tasks need to be performed 4 times a year?
Conduct main drain tests and check general condition of standpipe systems.
2. How often should dry trip tests be performed? **Once a year.**
3. How often should wet trip tests be performed? **Every 3 years.**
4. Which sprinkler tests relate to water flow?
 1. **Conduct flow test of open sprinklers**
 2. **Perform water flow tests**
 3. **Perform fire pump flow test**
5. How often should alarms be inspected? **Water flow alarms should be inspected monthly.**
6. What types of valves need to be inspected? **Check valves, dry pipe valves, pressure regulating, and altitude valves.**
7. **Exact days on calendar may vary but should clearly show which tasks need to be performed weekly and monthly.**
 - A. **Check water level in tanks (weekly)**
 - B. **Start fire pumps (weekly)**
 - C. **Check air pressure (weekly)**
 - D. **Inspect and test controllers (do not include)**
 - E. **Inspect valves for open position (monthly)**

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1 E	2
3 A	4 B	5 C	6	7	8	9
10 A	11 B	12 C	13	14	15	16
17 A	18 B	19 C	20	21	22	23
24 A	25 B	26 C	27	28		

8. Assuming the year starts January 1, what additional tasks would have to be completed in March? **Conduct main drain tests and check general condition of standpipe systems.**

HANDOUT: Maintenance Schedule: Sprinkler (3 pages)
Skill Builder: Entry Forms, Tables & Lists

IN THE WORKPLACE: Scheduling maintenance means that machinery is less likely to break down. Following and accurately verifying information in workplace forms such as maintenance schedules is a common task across trades. For example, to make sure that sprinkler systems are reliable, plumbers must perform periodic inspection and maintenance of all system components.

Read the **Sprinkler Maintenance Schedule** to complete the tasks and locate answers to the questions. Write the answers in the space provided or **highlight** the information in the form.

1. Which tasks need to be performed 4 times a year?

2. How often should dry trip tests be performed?

3. How often should wet trip tests be performed?

4. What sprinkler tests relate to water flow?

5. How often should alarms be inspected?

6. What types of valves need to be inspected?

7. Assuming the year starts January 1, complete the calendar to show when the following tasks need to be performed during February. Enter the corresponding letter (A, B, etc.) on the day you would schedule the maintenance

- A. Check water level in tanks
- B. Start fire pumps
- C. Check air pressure
- D. Inspect and test controllers
- E. Inspect valves for open position.

February

Sun	Mon	Tue	Wed	Thu	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		

8. Assuming the year starts January 1, what additional tasks would have to be completed in March?

Summary of Inspection and Test Frequencies for Sprinkler Systems.

	Weekly	Monthly	Quarterly	Annually	Every 3 years
Check general condition of sprinklers and sprinkler system				X	
Conduct flow tests of open sprinklers				X	
Conduct main drain tests			X		
Test water flow alarms		X			
Check air and water pressure in dry pipe systems	X				
Trip test dry pipe valves				X	
Drain low points in dry pipe systems				X	
Trip test deluge and pre-action systems				X	X ¹
Trip test high-speed suppression systems					X
Check general condition of standpipe systems			X		
Perform water flow tests				X	
Check general condition of hydrants				X	
Check general condition of fire department connections				X	
Check water levels in tanks	X				
Check general condition of water storage tanks				X	
Check water level and air pressure in pressure tanks	X				
Check general condition of pressure tanks				X	
Check tank heating systems				X	
Inspect and test cathodic protection equipment				X	
Start fire pumps	X				
Check fuel supply to engine drivers	X				
Perform fire pump flow tests				X	
Inspect and test controllers				X	
Inspect valves for open position		X			
Conduct general preventive maintenance inspection of valves				X	
Inspect check valves, water flow meters, and backflow preventers					X ¹
Test pressure regulating and altitude valves				X	
1- Annual trip test may be dry: wet trip test including flow of water through heads/nozzles shall be conducted a minimum of once every 3 years.					

Bow Valley College. (2020). Sprinkler Maintenance Schedule. [Entry Form]. Calgary, Canada: Author

INSTRUCTOR NOTES

Mileage Log

Skill Builder: Entry Forms, Tables & Lists

During the activity pre/apprentices will:

- Review common elements of time and distance logs
- Calculate costs and distances

Skill Focus

- **Key Skill:** Document Use
- **Supporting Skill(s):** Numeracy (measurement and calculation)

Handout

- Questions and Document Set (2 pages)

Talking Points

- Paperwork – either paper or digital – is part of most tradesperson’s work.
- Basic calculation errors made in your mileage logs or time sheets can result in errors in your payment and wasted time in the payroll office.
- Logs are legal documents. In the event of an accident or other incident that goes to court, logs are often required as evidence.
- While electronics can help with most calculations, it is important to be able to recognize when an answer does not look right. This is usually a sign that the information was inputted incorrectly.
- Need more help? Use the Skill Builder identified in the Handout.

Distribute the Handout.

ANSWER KEY: Mileage Log

Skill Builder: Entry Forms, Tables & Lists

Mileage Log						
Employee name	Alex Wu		Rate per km	.56	Do not write here:	
ID	0015822		For period	13/09/19 --- 19/09/19		
Authorized by	LG		Total mileage	112 km		
Authorized on	21/09/19		Total reimbursement	\$62.72		
Date	Starting Location	Destination	Odometer start	Odometer end	Mileage	Reimbursement
13/09/19	Office	Site B	23111	23128	17	9.52
15/09/19	Warehouse	Site A (return trip)	23156	23200	44	24.64
17/09/19	Office	Warehouse	23209	23221	12	6.72
18/09/19	Site A	Warehouse	23241	23263	22	12.32
19/09/19	Site B	Office	23277	23294	17	9.52

HANDOUTS: Mileage Log (2 pages)
Skill Builder: Entry Forms, Tables & Lists

IN THE WORKPLACE: Accurately calculating information in complex forms such as mileage logs and invoices is a common task across trades. Basic math errors can result in you being under or overpaid, or a client's bill not being accurate.

Use the **Mileage Form** to complete the following tasks.

1. Use the following information to complete as much of the form as you can:
 - a. Rate per km - .56
 - b. Employee ID # - 0015822
 - c. Driving period was 1 week (7 days)
 - d. Log was authorized 2 days after the last entry was made
 - e. Distance from office to warehouse = 12 km
 - f. Distance from warehouse to Site A = 22 km
 - g. Distance from office to Site B = 17 km

2. Calculate the total mileage and total reimbursement. Need help? Use your phone or a calculator.

Mileage Log

Employee name	Alex Wu		Rate per km		Do not write here:	
ID			For period	13/09/19 ---		
Authorized by	LG		Total mileage			
Authorized on			Total reimbursement	\$		
Date	Starting Location	Destination	Odometer start	Odometer end	Mileage	Reimbursement
13/09/19	Office	Site B	23111			
15/09/19	Warehouse	Site A (return trip)		23200		
17/09/19	Office	Warehouse	23209			
18/09/19	Site A		23241	23263		
19/09/19	Site B	Office	23277			

Bow Valley College. (2020). Mileage Log. [Entry Form]. Calgary, Canada: Author

INSTRUCTOR NOTES

Project Schedule

Skill Builders: Key Words & Phrases, Charts & Graphs

During the activity pre/apprentices will:

- Review common elements of charts used to track project schedules and responsibilities
- Locate information in complex forms

Skill Focus

- **Key Skill:** Document Use
- **Supporting Skill(s):** Numeracy (scheduling, budgeting & accounting)

Handouts

- Questions and Document Set (2 pages)

Talking Points

- The ability to meet project deadlines is an important skill for all tradespersons as failed deadlines cost money.
- Using charts in place of text is a quick way to show task sequence and identify potential delays where one task must be completed before another can begin.
- Horizontal bar graphs, also called Gantt charts, are frequently used to show the start and finish dates of inter-related project tasks and can include resources, milestones, and show who is responsible for each task.
- Need more help? Use the Skill Builders identified in the Handout.

Distribute the Handout.

ANSWER KEY: Project Schedule
Skill Builder: Key Words & Phrases, Charts & Graphs

1. What is the project completion date? **Thursday June 27.**
2. Who is responsible for the wiring and how many days will they need? **SR is responsible and the wiring will take 6 days.**
3. Who is responsible for the greatest number of project days? How many? **WM is responsible for 13 days.**
4. What tasks must be completed before the materials are purchased? **Design and engineer and obtain permits.**
5. If the inspection is moved up a week, what task(s) definitely need to be rescheduled? What additional task(s) may need to be rescheduled? **Definitely install AC and install PV modules. Maybe install DC wiring.**
6. How many work days can the procurement of the PV modules be delayed without impacting the schedule? **3 work days (to have them arrive the day before they are installed).**

Handouts: Project Schedule (2 pages)
Skill Builder: Key Words & Phrases, Charts & Graphs

IN THE WORKPLACE: Staying on schedule is critical to staying on budget and having the required resources (human and material) available when needed. A shared project schedule helps plan for potential problems and ensures neither time nor money are wasted.

Refer to the **Schedule: Solar Panel Installation** to locate the answers to the following questions.

1. What is the project completion date?

2. Who is responsible for the wiring and how many days will they need?

3. Who is responsible for the greatest number of project days? How many?

4. What tasks must be completed before the materials are purchased?

5. If the inspection is moved up a week, what task(s) definitely need to be rescheduled? What additional task(s) may need to be rescheduled?

6. How many work days can the procurement of the PV modules be delayed without impacting the schedule?

Schedule: Solar Panel Installation

Task	Who	June 3					June 10					June 17					June 24				
		M	T	W	T	F	M	T	W	T	F	M	T	W	T	F	M	T	W	T	F
Design and engineer	JK	█																			
Obtain permits	RT		█																		
Procure materials	RT					█															
Install roof attachments	WM						█														
Assemble racking	WM									█											
Install PV modules	WM											█									
Install DC wiring	SR							█													
Install AC system	WM															█					
Inspection	JK																			█	
Run Test	JK/WM																			█	

Note: Project dates refer to the first workday of that week.

Bow Valley College. (2020). Schedule: Solar Panel Installation. [Gantt chart]. Calgary, Canada: Author

INSTRUCTOR NOTES

Product Recall: Chainsaw

Skill Builder: Key Words & Phrases, Scanning, Tables & Lists

During the activity pre/apprentices will:

- Become familiar with the contents of a product recall alert
- Identify key information in a document

Skill Focus

- **Key Skill:** Document Use
- **Supporting Skill(s):** NA

Handouts

- Questions and Document Set (4 pages)

Talking Points

- Working safely is the responsibility of everyone on the job site.
- Continuing to use a product that has been recalled may put you or other members of your team at risk.
- Product recall notices may be quite long – knowing which section to look in for the information you need will save time.
- Need more help? Use the Skill Builder identified in the Handout.

Distribute the Handout.

ANSWER KEY: Product Recall: Chainsaw
Skill Builders: Key Words & Phrases, Scanning, Tables & Lists

1. When was the recall issued? **July 19, 2018**
2. How many Makita DCS products are included in the recall? **4**
3. How many of the affected units were sold in Canada? **2,503 units**
4. Is a Dolmar PS7900 purchased in January 2002 affected? Why or why not?
No. The affected products were not sold in Canada until April 2002.
5. What is another word for laceration? **Cut**
6. What are the 3 classes of chainsaw included in the recall? **64, 73, and 79 cc classes**
7. What is the hazard and the related danger in using the recalled chainsaws?
Hazard: The automatic chain brake does not easily engage when the saw kicks back Danger: That a user may come in contact with the chain and be cut by it
8. What should a person who owns a chainsaw in the list do immediately and later?
Immediately stop using it. Later take to a Makita Canada Factory Service Centre.
9. Can the chainsaws be repaired? At what cost? **Yes. Repair is free.**
10. What company manufactures the Makita chainsaws? **Dolmar GMBH, Makita Engineering**
11. The information in a product recall alert is divided into 3 sections. What would you title each section?
Answer may vary but suggested answers include: Section 1: Recall summary or Important information Section 2: Affected products Section 3: What you should do
12. Answers will vary depending on the product selected.

HANDOUTS: Product Recall: Chainsaw (4 pages)
Skill Builders: Key Words & Phrases, Scanning, Tables & Lists

IN THE WORKPLACE: Health Canada issues product alerts and recalls that are designed to keep consumers and workers safe. “Safety alerts” are issued as suggestions, but if a product is recalled it is always considered a danger to human health or safety. This means it could cause injury, death or adverse health effects as a result of its normal use. The Health Canada website has a special section dedicated to the recall of Tools and Electrical Products.

Read the **Product Recall Alert** to locate the following information. **Highlight** the information in the document or write your answers in the space provided.

1. When was the recall issued?

2. How many Makita DCS products are included in the recall?

3. How many of the affected units were sold in Canada?

4. Is a Dolmar PS7900 purchased in January 2002 affected?

5. What is another word for laceration?

6. What are the 3 classes of chainsaw included in the recall?

7. What is the hazard and the related danger in using the recalled chainsaws?

8. What should a person who owns a chainsaw in the list do?

9. Can the chainsaws be repaired? At what cost?

10. What company manufactures the chainsaws?

11. The information in a product recall alert is divided into 3 sections. What would you title each section?

12. Google the product alert page of the Government of Canada website. Go to the “Tools and Electrical Products” section and select a product under current or past recall. Scan the alert for the required information to complete the table below.

Date of alert	
Affected products	
Model number	
Identified hazard	
Name of manufacturer	
Instructions to consumer	

Makita Canada Inc. recalls Makita and Dolmar Chainsaws

Starting date: July 19, 2018
Posting date: July 19, 2018
Type of communication: Consumer Product Recall
Subcategory: Tools and Electrical Products
Source of recall: Health Canada
Issue: Laceration Hazard
Audience: General Public
Identification number: RA-67192

Affected products

Makita and Dolmar 64, 73 and 79 cc Gas Powered Chainsaws

Product description

This recall involves Makita and Dolmar brand chainsaws in the 64, 73 and 79 cc classes. These chainsaws were sold with and without chainsaw bars and chains. The motor housing/fuel tank are either red/orange or teal blue in colour.

The model number and date of manufacture are located on the label at the back of the saw near the handle. The table below provides the model number and date of manufacture of the affected chainsaws.



The following products are included in this recall.

Class	Brand	Model Number	Date of Manufacture	
64cc	Makita	DCS6401-PH DCS6421-20	Before June 1, 2018	
	Dolmar	PS6400		
73cc	Makita	DCS7301-PH EA7300P50E EA7300P50E	Before June 1, 2018	
		Dolmar		PS7300 PS7310
	Makita			DCS7901-PH
		Dolmar		PS7900 PS7910



Hazard identified

The automatic chain brake does not easily engage when the saw kicks back, possibly exposing the user to contact with the chain while it is still moving, posing a laceration hazard.

As of July 4, 2018, the company has received no report of incident or injury in Canada.

Number sold

Approximately 2,503 units of the affected products were sold in Canada.

Time period sold

The affected products were sold in Canada from April 2002 to June 2018.

Place of origin

Manufactured in Germany

Companies:

Distributor: Makita Canada Inc.
Whitby, Ontario
CANADA

Manufacturer: Dolmar GMBH, Makita Engineering
Hamburg
GERMANY

What you should do

Consumers should immediately stop using the affected chainsaws, and take the saw to the nearest Makita Canada Factory Service Centre to have the saw examined and repaired free of charge.

For more information, consumers may contact the nearest [Makita Factory Service Centre](#), by [email](#) or by visiting the company's [website](#).

Please note that the Canada Consumer Product Safety Act prohibits recalled products from being redistributed, sold or even given away in Canada.

Health Canada would like to remind Canadians to report any health or safety incidents related to the use of this product or any other consumer product or cosmetic by filling out the [Consumer Product Incident Report Form](#).

This recall is also posted on the [OECD Global Portal on Product Recalls website](#). You can visit this site for more information on other international consumer product recalls.

Date modified: 2018-08-03

Health Canada. (July 19, 2018). Makita Canada Inc. recalls Makita and Dolmar chainsaws.

<https://healthycanadians.gc.ca/recall-alert-rappel-avis/hc-sc/2018/67192r-eng.php>

Note: content has been edited for space. Do not assume all information is accurate.

INSTRUCTOR NOTES

Product Recall: Digital Clamp Meters

Skill Builders: Key Words & Phrases, Scanning, Tables & Lists

During the activity pre/apprentices will:

- Become familiar with the contents of a product recall alert
- Identify key information in a document

Skill Focus

- **Key Skill:** Document Use
- **Supporting Skill(s):** NA

Handouts

- Questions and Document Set (4 pages)

Talking Points

- Working safely is the responsibility of everyone on the job site.
- Continuing to use a product that has been recalled may put you or other members of your team at risk.
- Product recall notices may be quite long – knowing which section to look in for the information you need will save time.
- Need more help? Use the Skill Builder identified in the Handout.

Distribute the Handout.

ANSWER KEY: Product Recall: Digital Clamp Meters
Skill Builders: Key Words & Phrases, Scanning, Tables & Lists

1. When was the recall issued? **May 25, 2017**
2. How many meter types are included in the recall? **5**
3. How many of the affected units were sold in Canada? **Approximately 21 units**
4. Is an EX655 purchased in April 2016 affected? Why or why not?
Yes. The affected products were sold in Canada between January 2016 and April 2017.
5. What years were the recalled meters distributed? **2016 and 2017**
6. Which Extech meters are not included in the recall?
Those that have a serial number ending in an "A"
7. What is the hazard and the related danger in using the recalled meters?
Hazard: The screws can come loose which can fail to give accurate voltage readings Danger: That electrocution can occur
8. What should a person who owns a meter do right away?
Immediately stop using it and contact Extech for an exchange.
9. Can a consumer have the meters repaired? **No. They can be replaced.**
10. What company manufactures the meters? **Uni-Trend Technology Limited.**
11. The information in a product recall alert is divided into 3 sections. What would you title each section?
Answer may vary but suggested answers include: Section 1: Recall summary or Important information Section 2: Affected products Section 3: What you should do
12. Answers will vary depending on the product selected.

HANDOUTS: Product Recall: Digital Clamp Meters (4 pages)
Skill Builders: Key Words & Phrases, Scanning, Tables & Lists

IN THE WORKPLACE: Health Canada issues product alerts and recalls that are designed to keep consumers and workers safe. “Safety alerts” are issued as suggestions, but if a product is recalled it is always considered a danger to human health or safety. This means it could cause injury, death or adverse health effects as a result of its normal use. The Health Canada website has a special section dedicated to the recall of Tools and Electrical Products.

Read the **Product Recall Alert** to locate the following information. **Highlight** the information in the document or write your answers in the space provided.

1. When was the recall issued?

2. How many meter types are included in the recall?

3. How many of the affected units were sold in Canada?

4. Is an EX655 purchased in April 2016 affected?

5. What years were the recalled meters distributed?

6. Which Exech meters are not included in the recall?

7. What is the hazard and the related danger in using the recalled meters?

8. What should a consumer do right away?

9. Can a consumer have the meters repaired?

10. What company manufactures the meters?

11. The information in a product recall alert is divided into 3 sections. What would you title each section?

12. Google the product alert page of the Government of Canada website. Go to the “Tools and Electrical Products” section and select a product under current or past recall. Scan the alert for the required information to complete the table below.

Date of alert	
Affected products	
Model number	
Identified hazard	
Name of manufacturer	
Instructions to consumer	

Extech recalls Digital Clamp Meters

Starting date: May 25, 2017
Posting date: May 25, 2017
Type of communication: Consumer Product Recall
Subcategory: Tools and Electrical Products
Source of recall: Health Canada
Identification number: RA-67192

Affected products

Extech AC/DC Digital Clamp Meters

Product description

This recall involves AC/DC digital clamp meters that are used to measure AC/DC voltage, resistance, capacitance, frequency, temperature, continuity, and diode.

The following products are included in this recall.

Model number	Serial number	Date Code	UPC Code	Certification File Number
EX650	R15XXXXXXXX	2015	793950396506	UL E201687
EX655	R15XXXXXXXX	2015	793950396551	UL E201687
MA160	R17XXXXXXXX	2016	793950316016	ETL 150112090GZU-001
MA61	R15XXXXXXXX	2015-2016	793959370612	ETL 150609099GZU-001
MA63	R15XXXXXXXX	2015-2016	793950370636	ETL 150609099GZU-001

The model number can be found on the front of the unit and the serial number is on the back. Serial numbers ending with an "A" are not included in the recall.



Hazard identified

The clamp meters terminal input screws can come loose which can fail to give accurate readings, causing the user to falsely believe that the electrical power of the test subject is low or off, posing an electrocution hazard.

As of May 17, 2017 the company has received no report of incidents in Canada and no reports of injury. In the United States, the company has received reports of the screw coming loose and no reports of injury.

Number sold

Approximately 21 units of the affected products were sold in Canada and 800 were sold in the United States.

Time period sold

The affected products were sold in Canada from January 2016 to April 2017.

Place of origin

Manufactured in China

Companies:

Distributor: Extech
Goleta, California
UNITED STATES

Manufacturer: Uni-Trend Technology Limited
Guandong
CANADA

What you should do

Consumers should immediately stop using the meter and contact Extech for an exchange.

For more information, or to register for an exchange, consumers can contact Extech by phone at 111-111-1111, Monday to Friday 9:00 am to 5:00 pm EST, by email, or by visiting the company website and clicking on “Safety Notices” at the bottom of the page.

Please note that the Canada Consumer Product Safety Act prohibits recalled products from being redistributed, sold or even given away in Canada.

Health Canada would like to remind Canadians to report any health or safety incidents related to the use of this product or any other consumer product or cosmetic by filling out the [Consumer Product Incident Report Form](#).

This recall is also posted on the [OECD Global Portal on Product Recalls website](#). You can visit this site for more information on other international consumer product recalls.

Date modified: 2017-05-25

Ref: Health Canada. (2017). Recalls and safety alerts: digital clamp meters.

<https://healthycanadians.gc.ca/recall-alert-rappel-avis/hc-sc/2017/63356r-eng.php>

Note: content has been edited for space. Do not assume all information is accurate.

INSTRUCTOR NOTES

Product Recall: Torch Handles

Skill Builder: Key Words & Phrases, Scanning, Tables & Lists

During the activity pre/apprentices will:

- Become familiar with the contents of a product recall alert
- Identify key information in a document

Skill Focus

- **Key Skill:** Document Use
- **Supporting Skill(s):** NA

Handouts

- Questions and Document Set (4 pages)

Talking Points

- Working safely is the responsibility of everyone on the job site.
- Continuing to use a product that has been recalled may put you or other members of your team at risk.
- Product recall notices may be quite long – knowing which section to look in for the information you need will save time.
- Need more help? Use the Skill Builder identified in the Handout.

Distribute the Handout.

ANSWER KEY: Product Recall: Torch Handles
Skill Builders: Key Words & Phrases, Scanning, Tables & Lists

1. When was the recall issued? **July 31, 2014**
2. What brand names was the product sold under? **Lincoln Electric Company and Harris Products Group.**
3. How many of the affected units were sold in Canada? **Approximately 350 units**
4. Is a WELD-HDL 18-5 purchased in December 2014 affected? Why or why not?
No. The affected products were sold in Canada only until May 2014.
5. What does the model number prefix 440 indicate? **That the product is sold as part of a kit.**
6. Which Harris handles are not included in the recall?
Those that are marked with a "o" above the word "Harris" and to the right of the rivet head.
7. What is the hazard and the related danger in using the recalled product?
Hazard: The torch handles can leak oxygen or fuel
Danger: Fire can occur
8. What should a consumer do both right away and later?
Immediately stop using the recalled torch handle. Later, contact Harris for a replacement.
9. What 2 ways is the product sold? **Individually and as part of a kit or outfit.**
10. Where and by what company is the product manufactured?
Harris Calorific International in Dzieronow, Poland.
11. The information in a product recall alert is divided into 3 sections. What would you title each section?
Answer may vary but suggested answers include: Section 1: Recall summary or Important information Section 2: Affected products Section 3: What you should do
12. Answers will vary depending on the product selected.

HANDOUTS: Product Recall: Torch Handles (4 pages) Skill Builders: Key Words & Phrases, Scanning, Tables & Lists

IN THE WORKPLACE: Health Canada issues product alerts and recalls that are designed to keep consumers and workers safe. “Safety alerts” are issued as suggestions, but if a product is recalled it is always considered a danger to human health or safety. This means it could cause injury, death or adverse health effects as a result of its normal use. The Health Canada website has a special section dedicated to the recall of Tools and Electrical Products.

Read the **Product Recall Alert** to locate the following information. **Highlight** the information in the document or write your answers in the space provided.

1. When was the recall issued?

2. What brand names was the product sold under?

3. How many of the affected units were sold in Canada?

4. Is a WELD-HDL 18-5 purchased in December 2014 affected?

5. What does the model number prefix 440 indicate?

6. Which Harris handles are not included in the recall?

7. What is the hazard and the related danger in using the recalled product?

8. What should a consumer do both right away and later?

9. What 2 ways is the product sold?

10. Where and by what company is the product?

11. The information in a product recall alert is divided into 3 sections. What would you title each section?

12. Google the product alert page of the Government of Canada website. Go to the “Tools and Electrical Products” section and select a product under current or past recall. Scan the alert for the required information to complete the table below.

Date of alert	
Affected products	
Model number	
Identified hazard	
Name of manufacturer	
Instructions to consumer	

Harris Products Group recalls torch handles

Starting date: July 31, 2014
Posting date: July 31, 2014
Type of communication: Consumer Product Recall
Subcategory: Tools and Electrical Products
Source of recall: Health Canada
Issue: **Fire Hazard**
Identification number: RA-40729

Affected products

Torch handles used for welding, cutting, brazing, soldering and/or heating

Product description

This recall involves two models of torch handles that were manufactured from December 1, 2013 through March 31, 2014 and sold under the Lincoln Electric Company and Harris Product Group names. The specific model of torch handles are:

- Model 18-5
- Model 85

All of the potentially affected torch handles are stamped with the model number and one of the following manufacturing codes: FM, GA, GB, and GC. Both the model number and the date code are stamped permanently into the torch handle at the end opposite to the valve.

These models are sold both individually and as part of an outfit (including hoses, tanks, regulators and other parts).

The list of products that contain the potentially-affected torch handles is as follows:

Description	Kit Model Number
WELD-HDL,85 WITH C/V	1401340
WELD-HDL,85 LECO	1401346
KIT,8525 C DLX RAD	4400250
KIT, STANDARD DUTY WE250A	4403209
KIT, 85601-510 DLX CUTWELDER BAG	4403212
KIT, 8525GX-510 DLX STEELWORKER BAG	4403224
VALVE-ASY VA85	9101228
VALVE-ASY VA63	9101230

Units with “0” above the word “Harris” and to the right of the rivet head are not included in this recall.

Hazard identified

The torch handles can leak oxygen or fuel, posing a fire hazard.

Neither Harris Products Group nor Health Canada has received reports of consumer incidents or injuries related to the use of the torch handles in Canada.

Number sold

Approximately 350 of the recalled torches were sold in Canada and approximately 13,000 in the United States through various retailers and gas distributors.

Time period sold

The recalled torch handles were sold from December 2013 to May 2014 in Canada and the United States.

Place of origin

Manufactured in Poland.

Companies:

Manufacturer: Harris Calorific International
Dzierzoniow
POLAND

Distributor: Harris Products Group
Gainesville, Georgia
UNITED STATES

What you should do

Consumers should immediately stop using the meter and contact Harris Products Group to receive a free replacement.

For more information, consumers may contact Harris Products Group by phone at 111-111-1111, Monday to Friday 9:00 am to 5:00 pm EST, or online and click on Recall for more information.

Please note that the Canada Consumer Product Safety Act prohibits recalled products from being redistributed, sold or even given away in Canada.

Health Canada would like to remind Canadians to report any health or safety incidents related to the use of this product or any other consumer product or cosmetic by filling out the [Consumer Product Incident Report Form](#).

Date modified: 2014-07-31

Ref: Health Canada. (July 31, 2014). Harris Products Group recalls torch handles.
<https://healthycanadians.gc.ca/recall-alert-rappel-avis/hc-sc/2014/40729r-eng.php>

Note: content has been edited for space. Do not assume all information is accurate.

INSTRUCTOR NOTES

Product Recall: Hot Water Boiler

Skill Builder: Key Words & Phrases, Scanning, Tables & Lists

During the activity pre/apprentices will:

- Become familiar with the contents of a product recall alert
- Identify key information in a document

Skill Focus

- **Key Skill:** Document Use
- **Supporting Skill(s):** NA

Handouts

- Questions and Document Set (4 pages)

Talking Points

- Working safely is the responsibility of everyone on the job site.
- Continuing to use a product that has been recalled may put you or other members of your team at risk.
- Product recall notices may be quite long – knowing which section to look in for the information you need will save time.
- Need more help? Use the Skill Builder identified in the Handout.

Distribute the Handout.

ANSWER KEY: Product Recall: Hot Water Boiler
Skill Builders: Key Words & Phrases, Scanning, Tables & Lists

1. How long after the posting date was the recall information modified? **10 days later**
2. What 2 conditions can cause the seal to deteriorate? **Excessive use and/or improper installation**
3. How many of the affected units were sold in Canada? **Approximately 7359 units**
4. Is a model Tft155 purchased in October 2018 affected? Why or why not?
No. The affected products were sold in Canada only until January 2018.
5. What is the common UPC prefix for all of the recalled boilers? **First 8 digits: 62823373**
6. Which information is different between the Canadian and American reports?
Reports of seal deterioration: CAN: 2, USA: 1
Reports of emissions: CAN: 1, USA: 0 Reports of injuries is the same (none)
7. What is the hazard and the related danger in using the recalled product?
Hazard: Grommet seal may deteriorate
Danger: Exposure to low levels of carbon monoxide
8. What should a consumer do both right away and later?
Immediately stop using the recalled boilers. Later, contact their installer to have an upgrade kit installed.
9. Who can install the upgrade kit? **Only certified installers.**
10. Where and by what company is the product distributed?
NY Thermal in Saint John, New Brunswick, Canada
11. The information in a product recall alert is divided into 3 sections. What would you title each section?
Answer may vary but suggested answers include: Section 1: Recall summary or Important information Section 2: Affected products Section 3: What you should do
12. Answers will vary depending on the product selected.

HANDOUTS: Product Recall: Hot Water Boiler (4 pages) Skill Builders: Key Words & Phrases, Scanning, Tables & Lists

IN THE WORKPLACE: Health Canada issues product alerts and recalls that are designed to keep consumers and workers safe. “Safety alerts” are issued as suggestions, but if a product is recalled it is always considered a danger to human health or safety. This means it could cause injury, death or adverse health effects as a result of its normal use. The Health Canada website has a special section dedicated to the recall of Tools and Electrical Products.

Read the **Product Recall Alert** to locate the following information. **Highlight** the information in the document or write your answers in the space provided.

1. How long after the posting date was the recall information modified?

2. What 2 conditions can cause the seal to deteriorate?

3. How many of the affected units were sold in Canada?

4. Is a model Tft155 purchased in October 2018 affected? Why or why not?

5. What is the common UPC prefix for all of the recalled boilers?

6. What information is different between the Canadian and American reports?

7. What is the hazard and the related danger in using the recalled product?

8. What should a consumer do both right away and later?

9. Who can install the upgrade kit?

10. Where and by what company is the product distributed?

11. The information in a product recall alert is divided into 3 sections. What would you title each section?

12. Google the product alert page of the Government of Canada website. Go to the “Tools and Electrical Products” section and select a product under current or past recall. Scan the alert for the required information to complete the table below.

Date of alert	
Affected products	
Model number	
Identified hazard	
Name of manufacturer	
Instructions to consumer	

NY Thermal Inc. (NTI) recalls Trinity Tft Gas-Fired Hot Water Boilers

Starting date: May 15, 2018
Posting date: May 15, 2018
Type of communication: Consumer Product Recall
Subcategory: Household Items, Appliances
Source of recall: Health Canada
Issue: **Public Safety**
Identification number: RA-66672

Affected products

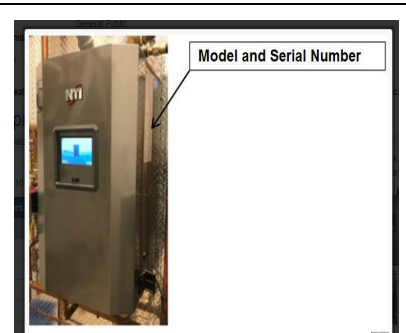
NTI Trinity Tft Gas-Fired Hot Water Boilers

Product description

This recall involves 10 models (see table below) of Trinity Tft Gas-Fired Hot Water Boilers.

The Serial Numbers range from 1000 to 1115541.

Model	UPC
Tft60	628233731005
Tft85	628233731036
Tft110	628233731067
Tft155	628233731098
Tft155	628233731128
Tft200	628233731159
Tft250	628233731180
Tft300	628233731210
Tft340	628233733467
Tft399	628233731241



Hazard identified

Deterioration of the grommet seal in certain excessively used and/or improperly installed NTI boilers could potentially permit the escape of low levels of carbon monoxide.

As of April 30, 2018 the company has received 2 reports of grommet seal deterioration in Canada, and in one of those cases there was a report of a low level emission of carbon dioxide but no reports of injuries.

Number sold

Approximately 7359 of the affected products were sold in Canada and approximately 16,000 were sold in the United States.

Time period sold

The affected products were sold in Canada and the United States from October 7, 2011 to January 24, 2018.

Place of origin

Manufactured in United States.

Companies:

Manufacturer: Duravent
Albany, New York
UNITED STATES

Distributor: NY Thermal Inc.
Saint John, New Brunswick
CANADA

What you should do

Consumers should immediately stop using the recalled boilers and contact their installer to have an upgrade kit installed. The company will pay a certified installer to complete the upgrade. The upgrade is estimated to take approximately 10 minutes, and does not require the disconnection of the exhaust venting, gas or water lines.

For more information, consumers may contact NYI toll-free at 111-111-1111, Monday to Friday 7:00 am to 7:00 pm EST, or online through the company's website.

Please note that the Canada Consumer Product Safety Act prohibits recalled products from being redistributed, sold or even given away in Canada.

Health Canada would like to remind Canadians to report any health or safety incidents related to the use of this product or any other consumer product or cosmetic by filling out the [Consumer Product Incident Report Form](#).

Date modified: 2018-05-25

Health Canada. (May 15, 2018). NY Thermal Inc. (NTI) recalls Trinity Tft gas-fired hot water boilers. <https://healthycanadians.gc.ca/recall-alert-rappel-avis/hc-sc/2018/66672r-eng.php>

Note: content has been edited for space. Do not assume all information is accurate.

INSTRUCTOR NOTES

SDS: Auto Service Technician

Skill Builders: Key Words & Phrases, Tables & Lists

During the activity pre/apprentices will:

- Become familiar with the contents and purpose of an SDS
- Identify key information in a document

Skill Focus

- **Key Skill:** Document Use
- **Supporting Skill(s):** NA

Handouts

- Questions and Document Set (5 pages)

Talking Points

- Working safely is the responsibility of everyone on the job site.
- In 2015, SDS became the legal standard but the term MSDS may still be used on the job site.
- The format for all SDS is standardized and set by law.
- All SDS must be available in paper format on the job site.
- SDS are long documents – knowing which section to look in for the information you need will save time, and in an emergency, maybe someone's life.
- Need more help? Use the Skill Builders identified in the Handout.

Distribute the Handout.

ANSWER KEY: SDS: Auto Service Technician
Skill Builder: Key Words & Phrases, Tables & Lists

PART 1.

Search Questions	Section (1-16)
1. What is the name of the product?	1
2. What is the product made of?	3
3. Where should the product be stored when not in use?	7
4. What should you do if this product splashes in your eyes?	4
5. Is the product made in Canada?	1
6. If this product catches fire, how do you put it out?	5
7. What sort of PPE should be worn when using this product?	8
8. What should the product smell like?	9
9. How can you dispose of leftover product?	13
10. What are the US shipping codes for this product?	14
11. What is the product used for?	1
12. What hazards are associated with this product?	2
13. What changes if any have been made since the last revision?	16
14. Are there potential long term risks associated with using this product?	11

PART 2.

1. What is the name of the product? **Integrally Molded Brake Pad**
2. What is the phone number to call in a medical emergency? **(519) 763-9000**
3. What month and year was the SDS last issued? **August 2015**
4. What should you do if the product gets in your eyes?
**Remove any contact lenses.
Immediately and continuously flush eyes with water for 15 minutes. If irritation persists, seek medical attention.**
5. Where can you find information on what protective equipment to use? **Section 8**
6. When should a respirator be used as part of the PPE? **If airborne dust is generated.**
7. How should the product be stored? Why?
In a dry area. Product could rust if in contact with moisture.
8. Identify 2 recommended actions for how to clean up the product and 1 action that is not recommended.
Recommended: Use a HEPA vacuum or wet clean up Not recommended: Do not use compressed air
9. What evidence is there that dust from the product may pose a health risk?
**SDS advises minimize dust generation and to use adequate ventilation if dust is generated.
SDS advises not to use compressed air to contain the product (would blow any dust).**
10. When should calling for medical help be the first response?
If the product is ingested (eaten or swallowed).

HANDOUTS: SDS: Auto Service Technician (5 pages)

Skill Builder: Key Words & Phrases, Tables & Lists

IN THE WORKPLACE: According to the WCB (Workers' Compensation Board), it is each worker's responsibility to learn about hazardous products they use and to follow safe work procedures. Detailed information about hazardous products is provided in Safety Data Sheets, usually called SDS.

PART 1: SDS standards are set by law. Every SDS must contain information on the following 16 sections.

1. **Product and Company Information:** Includes product name, what the product is used for, the chemical name, the name of the manufacturer or suppliers with contact information.
2. **Hazardous Identification:** The related hazard classifications (with pictograms) and the potential health effects of each hazard associated with the product.
3. **Composition/Ingredients:** Chemical and common names of hazardous ingredients.
4. **First aid measures:** Immediate treatment and information for medical professionals.
5. **Fire-fighting measures:** Suitable extinguishers and instructions to fire-fighters.
6. **Accidental release measures:** What to do if the product spills out of its container.
7. **Handling and Storage:** Precautions for safe handling.
8. **Exposure Controls/Personal Protection:** Guidelines for safe use and required personal protective equipment (PPE).
9. **Physical and Chemical Properties:** Information such as product colour and smell and details related to the product's chemicals' effects on health, safety and the environment.
10. **Stability and Reactivity:** What happens to the product if it comes into contact with another product.
11. **Toxicological information:** How health can be affected by short-term and long-term exposure to the product.
12. **Ecological information:** Information on the environmental impact of the product.
13. **Disposal Considerations:** Information on safe waste disposal including packaging.
14. **Transport Information:** Shipping information such as the shipping classification and the Transport Canada PIN (Product Information Number) for the whole product.
15. **Regulatory Information:** Safety, health and environmental regulations specific to the product.
16. **Other information:** Details of any changes to the SDS since the last revision.

On the job you will need to look up information in the SDS. You want to be efficient and start with the section that will most likely have the answers you are looking for.

- Decide which of the 16 section of the SDS you would scan **first** to find the answer to each of the search questions below.
- Enter the **section number** of the section in the space provided.

Search Questions	Section (1-16)
1. What is the name of the product?	
2. What is the product made of?	
3. Where should the product be stored when not in use?	
4. What should you do if this product splashes in your eyes?	
5. Is the product made in Canada?	
6. If this product catches fire, how do you put it out?	
7. What sort of PPE should be worn when using this product?	
8. What should the product smell like?	
9. How can you dispose of leftover product?	
10. What are the US shipping codes for this product?	
11. What is the product used for?	
12. What hazards are associated with this product?	
13. What changes if any have been made since the last revision?	
14. Are there potential long term risks associated with using this product?	

PART 2: Locate the answers to the following questions in the SDS sections that follow. Highlight the answers or write the in the space provided below.

1. What is the name of the product?

2. What is the phone number to call in an emergency?

3. What month and year was the SDS last issued?

4. What should you do if the product gets in your eyes?

5. Where can you find information on what protective equipment to use?

6. When should a respirator be used as part of the PPE?

7. How stored the product be stored? Why?

8. Identify 2 recommended actions for how to clean up the product and 1 action that is not recommended.

9. What evidence is there that dust from the product may pose a health risk?

10. When should calling for medical help be the first response?



SAFETY DATA SHEET

SAFETY DATA SHEET NUMBER: ABS-BP-SDS-1

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Integrally Molded Brake Pad
MANUFACTURER / SUPPLIER: ABS Friction Inc.
 55 Taggart Street
 Guelph, ON
 Canada, N1L 1M9
 EMERGENCY PHONE NUMBER: (519) 763-9000
 8:30 AM to 4:30 PM ET
www.absfriction.com
PRODUCT USE: Vehicle brake pad
DATE OF PREPARATION: August 20, 2015

SECTION 4 - FIRST AID MEASURES

INHALATION: If symptoms are experienced (e.g. cough, irritation, etc.), remove victim to fresh air. If irritation persists, seek medical attention.
SKIN CONTACT: In case of irritation, remove contaminated clothing and flush affected areas with water. If irritation persists, seek medical attention.
EYE CONTACT: Remove any contact lenses. Immediately and continuously flush eyes with plenty of water for at least 15 minutes. If irritation persists, seek medical attention.
INGESTION: Seek medical attention.
PERSONAL PROTECTIVE EQUIPMENT FOR FIRST AID RESPONDERS: Not applicable

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear appropriate personal protective equipment – refer to Section 8 for more information. This would include a particulate respirator if airborne dust is generated.
ENVIRONMENTAL PRECAUTIONS: Not applicable
METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Avoid generating dust from this product. Clean up using methods that do not generate dust such as HEPA vacuum or wet clean up. Avoid using compressed air for removal of dust.

SECTION 7 – HANDLING AND STORAGE

HANDLING PROCEDURES AND EQUIPMENT: Handle in accordance with good industrial hygiene and safety practices. Minimize dust generation. Use adequate ventilation if dust is generated. Avoid contact with skin and eyes.
STORAGE REQUIREMENTS: Store the product in a dry area as contact with moisture may promote rust.
SENSITIVITY TO MECHANICAL IMPACT: Not sensitive
SENSITIVITY TO STATIC DISCHARGE: Not sensitive

ABS Friction. (August 20, 2015). Internally molded brake pad. [Safety Data Sheet]. <http://www.absfriction.com/pdf/MSDS.pdf>

Note: This document has been modified. Sections 2, 3, 5 and 8-16 are not included here. This document is not an official version.

INSTRUCTOR NOTES

SDS: Carpenter

Skill Builders: Key Words & Phrases, Tables & Lists

During the activity pre/apprentices will:

- Become familiar with the contents and purpose of an SDS
- Identify key information in a document

Skill Focus

- **Key Skill:** Document Use
- **Supporting Skill(s):** NA

Handouts

- Questions and Document Set (5 pages)

Talking Points

- Working safely is the responsibility of everyone on the job site.
- In 2015, SDS became the legal standard but the term MSDS may still be used on the job site.
- The format for all SDS is standardized and set by law.
- All SDS must be available in paper format on the job site.
- SDS are long documents – knowing which section to look in for the information you need will save time, and in an emergency, maybe someone's life.
- Need more help? Use the Skill Builders identified in the Handout.

Distribute the Handout.

ANSWER KEY: SDS: Carpenter**Skill Builders: Key Words & Phrases, Tables & Lists****PART 1.**

Search Questions	Section (1-16)
1. What is the name of the product?	1
2. What is the product made of?	3
3. Where should the product be stored when not in use?	7
4. What should you do if this product splashes in your eyes?	4
5. Is the product made in Canada?	1
6. If this product catches fire, how do you put it out?	5
7. What sort of PPE should be worn when using this product?	8
8. What should the product smell like?	9
9. How can you dispose of leftover product?	13
10. What are the US shipping codes for this product?	14
11. What is the product used for?	1
12. What hazards are associated with this product?	2
13. What changes if any have been made since the last revision?	16
14. Are there potential long term risks associated with using this product?	11

PART 2.

1. What is the name of the product? **LePage PL200 Construction Adhesive**
2. What is the phone number to call in a medical emergency? **1-877-671-4608 or 1-303- 592-1711**
3. What month and year was the SDS last issued? **December 2018**
4. What should you do if the product gets in your eyes?
Rinse cautiously with water for several minutes.
Remove contact lenses if present and easy to do.
Continue rinsing.
If eye irritation persists: Get medical attention.
5. How can you prevent the product getting in your eyes? **Wear eye protection.**
6. What 3 types of personal protection equipment should be worn when using the product?
Protective gloves, eye protection, and face protection.
7. After the product container is closed, identify 3 precautions for how it should be stored.
In a well-ventilated place.
Keep cool.
Store locked up.
8. One hazard of the product is that it is highly flammable. Identify 2 ways you can reduce that risk. **Accept any two of the following:**
 1. **Keep away from heat, sparks, open flames, hot surfaces – no smoking.**
 2. **Use explosion-proof equipment.**
 3. **Use only non-sparking tools.**
 4. **Take precautionary measures against static discharge.**
9. One hazard of the product is that inhaling it may cause drowsiness or dizziness. Identify 2 ways you can reduce that risk. **Accept any two of the following:**
 1. **Keep container tightly closed.**
 2. **Avoid breathing vapours, mist or spray.**
 3. **Use only outdoors or in well-ventilated area.**
10. How many pages are in the complete SDS? **8**

HANDOUTS: SDS: Carpenter (5 pages)

Skill Builders: Key Words & Phrases, Tables & Lists

IN THE WORKPLACE: According to the WCB (Workers' Compensation Board), it is each worker's responsibility to learn about hazardous products they use and to follow safe work procedures. Detailed information about hazardous products is provided in Safety Data Sheets, usually called SDS.

PART 1: SDS standards are set by law. Every SDS must contain information on the following 16 sections.

1. **Product and Company Information:** Includes product name, what the product is used for, the chemical name, the name of the manufacturer or suppliers with contact information.
2. **Hazardous Identification:** The related hazard classifications (with pictograms) and the potential health effects of each hazard associated with the product.
3. **Composition/Ingredients:** Chemical and common names of hazardous ingredients.
4. **First aid measures:** Immediate treatment and information for medical professionals.
5. **Fire-fighting measures:** Suitable extinguishers and instructions to fire-fighters.
6. **Accidental release measures:** What to do if the product spills out of its container.
7. **Handling and Storage:** Precautions for safe handling.
8. **Exposure Controls/Personal Protection:** Guidelines for safe use and required personal protective equipment (PPE).
9. **Physical and Chemical Properties:** Information such as product colour and smell and details related to the product's chemicals' effects on health, safety and the environment.
10. **Stability and Reactivity:** What happens to the product if it comes into contact with another product.
11. **Toxicological information:** How health can be affected by short-term and long-term exposure to the product.
12. **Ecological information:** Information on the environmental impact of the product.
13. **Disposal Considerations:** Information on safe waste disposal including packaging.
14. **Transport Information:** Shipping information such as the shipping classification and the Transport Canada PIN (Product Information Number) for the whole product.
15. **Regulatory Information:** Safety, health and environmental regulations specific to the product
16. **Other information:** Details of any changes to the SDS since the last revision.

On the job you will need to look up information in the SDS. You want to be efficient and start with the section that will most likely have the answers you are looking for.

- Decide which of the 16 sections of the SDS you would scan **first** to find the answer to each of the search questions below.
- Enter the **section number** of the section in the space provided.

Search Questions	Section (1-16)
1. What is the name of the product?	
2. What is the product made of?	
3. Where should the product be stored when not in use?	
4. What should you do if this product splashes in your eyes?	
5. Is the product made in Canada?	
6. If this product catches fire, how do you put it out?	
7. What sort of PPE should be worn when using this product?	
8. What should the product smell like?	
9. How can you dispose of leftover product?	
10. What are the US shipping codes for this product?	
11. What is the product used for?	
12. What hazards are associated with this product?	
13. What changes if any have been made since the last revision?	
14. Are there potential long term risks associated with using this product?	

PART 2: Locate the answers to the following questions in page 1 of the SDS. Highlight the answers or write them in the space provided below.

1. What is the name of the product?

2. What is the phone number to call in a medical emergency?

3. What month and year was the SDS last issued?

4. What should you do if the product gets in your eyes?

5. How can you prevent the product getting in your eyes?

6. What 3 types of personal protection equipment should be worn when using the product?

7. After the product container is closed, identify 3 precautions for how it should be stored.

8. One hazard of the product is that it is highly flammable. Identify 2 ways you can reduce that risk.

9. One hazard of the product is that inhaling it may cause drowsiness or dizziness. Identify 2 ways you can reduce that risk.

10. How many pages are in the complete SDS?

Safety Data Sheet



Revision Number: 003.0

Issue date: 10/18/2018

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: LePage® PL200® Construction Adhesive
IDH number: 1421928
Product type: Adhesive
Restriction of Use: None identified
Region: Canada
Company address: Henkel Canada Corporation
 Meadowpine Boulevard 2515
 Mississauga, Ontario L5N 6C3
Contact information:
 Telephone: +1 (905) 814-6511
 MEDICAL EMERGENCY Phone: Poison Control Center
 1-877-671-4608 (toll free) or 1-303-592-1711
 TRANSPORT EMERGENCY Phone: CHEMTREC
 1-800-424-9300 (toll free) or 1-703-527-3887
 Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER: HIGHLY FLAMMABLE LIQUID AND VAPOR.
 CAUSES SKIN IRRITATION.
 CAUSES SERIOUS EYE IRRITATION.
 MAY CAUSE DROWSINESS OR DIZZINESS.
 MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.

HAZARD CLASS	HAZARD CATEGORY
FLAMMABLE LIQUID	2
SKIN IRRITATION	2
EYE IRRITATION	2A
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE	2

PICTOGRAM(S)



Precautionary Statements

Prevention: Keep away from heat, sparks, open flames, hot surfaces - no smoking. Keep container tightly closed. No release into water. Use explosion-proof equipment. Use non-sparking tools. Take action to prevent static discharges. Do not breathe vapors, mist, or spray. Wash affected area thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves, eye protection, and face protection.

Response: If on skin (or hair): Take off immediately all contaminated clothing. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if you feel unwell. If skin irritation occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing. In case of fire: Use foam, dry chemical or carbon dioxide to extinguish.

IDH number: 1421928

Product name: LePage® PL200® Construction Adhesive

INSTRUCTOR NOTES

SDS: Heavy Equipment Operator
Skill Builders: Key Words & Phrases, Tables & Lists

During the activity pre/apprentices will:

- Become familiar with the contents and purpose of an SDS
- Identify key information in a document

Skill Focus

- **Key Skill:** Document Use

Handouts

- Questions and Document Set (5 pages)

Talking Points

- Working safely is the responsibility of everyone on the job site.
- In 2015, SDS became the legal standard but the term MSDS may still be used on the job site.
- The format for all SDS is standardized and set by law.
- All SDS must be available in paper format on the job site.
- SDS are long documents – knowing which section to look in for the information you need will save time, and in an emergency, maybe someone's life.
- Need more help? Use the Skill Builders identified in the Handout.

Distribute the Handout.

ANSWER KEY: SDS: Heavy Equipment Operator
Skill Builders: Key Words & Phrases, Tables & Lists

PART 1.

Search Questions	Section (1-16)
1. What is the name of the product?	1
2. What is the product made of?	3
3. Where should the product be stored when not in use?	7
4. What should you do if this product splashes in your eyes?	4
5. Is the product made in Canada?	1
6. If this product catches fire, how do you put it out?	5
7. What sort of PPE should be worn when using this product?	8
8. What should the product smell like?	9
9. How can you dispose of leftover product?	13
10. What are the US shipping codes for this product?	14
11. What is the product used for?	1
12. What hazards are associated with this product?	2
13. What changes if any have been made since the last revision?	16
14. Are there potential long term risks associated with using this product?	11

PART 2.

1. What is the product used for? **Parts washer cleaner**
2. How many hazard types are identified? List them. **3. Acute toxicity, skin corrosion, and eye irritation**
3. What 2 things does the pictogram indicate?
The product is corrosive to metal.
The product is corrosive to skin.
4. What should you do and not do if the product gets in your mouth?
Do: rinse mouth and drink water Do
not: induce vomiting
5. What PPE should be used with the product? **Gloves, protective clothing, eye protection, and face protection**
6. Where can you find more information on possible side effects of exposure to the product? **Section 11**
7. What does Category 1C refer to? **Skin corrosion**
8. How should the product be disposed of?
In accordance with local, regional, national and international regulations
9. What is Canutec and why is their contact information included in the SDS? If you need help, use your phone to search for the answer.
Canutec is the Canadian Transport Emergency Centre. Their information is included because they operate a 24-hour emergency hotline for immediate advice and recommended actions related to the transport of hazardous products.

HANDOUTS: SDS: Heavy Equipment Operator (5 pages)
Skill Builders: Key Words & Phrases, Tables & Lists

IN THE WORKPLACE: According to the WCB (Workers' Compensation Board), it is each worker's responsibility to learn about hazardous products they use and to follow safe work procedures. Detailed information about hazardous products is provided in Safety Data Sheets, usually called SDS.

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3. **Composition/Ingredients:** Chemical and common names of hazardous ingredients.
4. **First aid measures:** Immediate treatment and information for medical professionals.
5. **Fire-fighting measures:** Suitable extinguishers and instructions to fire-fighters.
6. **Accidental release measures:** What to do if the product spills out of its container.
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15. **Regulatory Information:** Safety, health and environmental regulations specific to the product.
16. **Other information:** Details of any changes to the SDS since the last revision.

On the job you will need to look up information in the SDS. You want to be efficient and start with the section that will most likely have the answers you are looking for.

- Decide which of the 16 sections of the SDS you would scan **first** to find the answer to each of the search questions below.
- Enter the **section number** of the section in the space provided.

Search Questions	Section (1-16)
1. What is the name of the product?	
2. What is the product made of?	
3. Where should the product be stored when not in use?	
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5. Is the product made in Canada?	
6. If this product catches fire, how do you put it out?	
7. What sort of PPE should be worn when using this product?	
8. What should the product smell like?	
9. How can you dispose of leftover product?	
10. What are the US shipping codes for this product?	
11. What is the product used for?	
12. What hazards are associated with this product?	
13. What changes if any have been made since the last revision?	
14. Are there potential long term risks associated with using this product?	

PART 2: Locate the answers to the following questions in the SDS. **Highlight** the answers in the document or write them in the space provided below.

1. What is the product used for?

2. How many hazard types are identified? List them.

3. What 2 things does the pictogram indicate?

4. What should you do and not do if the product gets in your mouth?

5. What PPE should be used with the product?

6. Where can you find more information on possible side effects of exposure to the product?

7. What does Category 1C refer to?

8. How should the product be disposed of?

9. What is Canutec and why is their contact information included in the SDS? If you need help, use your phone to search for the answer.

SECTION 1. IDENTIFICATION

Product Identifier	Excalibur JW92
Recommended Use	Parts Washer Cleaner.
Manufacturer/	Excalibur Chemicals, 1120 McDonald St., Regina, SK, S4N 4X3, 306-569-2781,
Supplier Identifier	www.excaliburindustrial.com Canutec, (613) 996-6666, Collect calls accepted or dial 666 on your cellular.

SECTION 2. HAZARD IDENTIFICATION

Classified according to Canada's Hazardous Products Regulations (WHMIS 2015).

Classification

Acute toxicity (Oral) - Category 5; Skin corrosion - Category 1C; Eye irritation - Category 2A

Label Elements**Danger**

Causes severe skin burns and eye damage.

Wear protective gloves/protective clothing/eye protection/face protection.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Call a POISON CENTRE or doctor if you feel unwell.

Dispose of contents and container in accordance with local, regional, national and international regulations.

SECTION 4. FIRST-AID MEASURES**Inhalation**

Move to fresh air. Keep at rest in a position comfortable for breathing.

Skin Contact

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Quickly and gently blot or brush away excess chemical. Wash with plenty of water.

Eye Contact

Quickly and gently blot or brush chemical off the face. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion

Rinse mouth with water. Drink 1 or 2 glasses of water. Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting.

First-aid Comments

Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

Review Section 11 (Toxicological) of this Safety Data Sheet.

Immediate Medical Attention and Special Treatment

Special Instructions: Treat Symptomatically.

Excalibur Industrial. (2016). Mirage JW92 SDS (Safety Data Sheet). Saskatoon, SK: Swish-Kemsol

This document has been modified. Sections 3 and 5-16 (inclusive) are not included here. This document is not an official version.

INSTRUCTOR NOTES

SDS: Welder

Skill Builders: Key Words & Phrases, Tables & Lists

During the activity pre/apprentices will:

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- Identify key information in a document

Skill Focus

- **Key Skill:** Document Use

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- Questions and Document Set (5 pages)

Talking Points

- Working safely is the responsibility of everyone on the job site.
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- The format for all SDS is standardized and set by law.
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- SDS are long documents – knowing which section to look in for the information you need will save time, and in an emergency, maybe someone's life.
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ANSWER KEY: SDS: Welder
Skill Builders: Key Words & Phrases, Tables & Lists

PART 1.

Search Questions	Section (1-16)
1. What is the name of the product?	1
2. What is the product made of?	3
3. Where should the product be stored when not in use?	7
4. What should you do if this product splashes in your eyes?	4
5. Is the product made in Canada?	1
6. If this product catches fire, how do you put it out?	5
7. What sort of PPE should be worn when using this product?	8
8. What should the product smell like?	9
9. How can you dispose of leftover product?	13
10. What are the US shipping codes for this product?	14
11. What is the product used for?	1
12. What hazards are associated with this product?	2
13. What changes if any have been made since the last revision?	16
14. Are there potential long term risks associated with using this product?	11

PART 2.

1. What is the product? **Welding electrodes and rods**
2. How many hazard types are identified? List them. **4. Heat, radiation, electricity and fumes**
3. What day and month was the SDS last updated? How could it be written to make it clearer?
Either May 1 or Jan 5.
Would be clearer if month was written as a word. NOTE:
Canadian standard is YYYY-MM-DD.
4. What should you do if the product, when hot, gets on your skin?
Promptly flush with cold water.
Get medical attention for burns or irritation that persists.
Remove dust and particles by washing with mild soap and water.
5. What component of the product causes the greatest health hazard? What disease can it cause?
Nickel. Cancer.
6. Where can you find more information on what personal protection to use when handling spills? **Section 8**
7. How should the product be stored?
Separate from chemical substances like acids and strong bases
8. One hazard of the product is contact with its fumes. What part of the body can be affected by long-term overexposure to fumes? Identify 1 way you can reduce that risk. **Lungs.**
Reduce exposure and/or wear proper PPE (for example, a respirator)
9. Identify 2 ways the product can harm your eyes.
1. Radiation burn due to arc flashing
2. Dust or fumes in the eyes
10. How many pages are in the complete SDS? **6**

HANDOUTS: SDS: Welder (5 pages)
Skill Builders: Key Words & Phrases, Tables & Lists

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12. **Ecological information:** Information on the environmental impact of the product.
13. **Disposal Considerations:** Information on safe waste disposal including packaging.
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15. **Regulatory Information:** Safety, health and environmental regulations specific to the product.
16. **Other information:** Details of any changes to the SDS since the last revision.

On the job you will need to look up information in the SDS. You want to be efficient and start with the section that will most likely have the answers you are looking for.

- Decide which of the 16 sections of the SDS you would scan **first** to find the answer to each of the search questions below.
- Enter the **section number** of the section in the space provided.

Search Questions	Section (1-16)
1. What is the name of the product?	
2. What is the product made of?	
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5. Is the product made in Canada?	
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7. What sort of PPE should be worn when using this product?	
8. What should the product smell like?	
9. How can you dispose of leftover product?	
10. What are the US shipping codes for this product?	
11. What is the product used for?	
12. What hazards are associated with this product?	
13. What changes if any have been made since the last revision?	
14. Are there potential long term risks associated with using this product?	

PART 2: Locate the answers to the following sections of the SDS. Highlight the answers or write the in the space provided below.

1. What is the product?

2. How many hazard types are identified? List them.

3. What day and month was the SDS last updated? How could it be written to make it clearer?

4. What should you do if the product, when hot, gets on your skin?

5. What component of the product causes the greatest health hazard? What disease can it cause?

6. Where can you find more information on what personal protection to use when handling spills?

7. How should the product be stored?

1. One hazard of the product is contact with its fumes. What part of the body can be affected by long-term overexposure to fumes? Identify 1 way you can reduce that risk.

2. Identify 2 ways the product can harm your eyes.

3. How many pages are in the complete SDS?

SAFETY DATA SHEET

Page: 1(6)
 SDS Number: CAN324-D
 Date Revised: 05/01/2014

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: ESAB OK® BARE STAINLESS STEEL WELDING ELECTRODES AND RODS
Application: Arc Welding
Classification: AWS A5.9
Supplier: ESAB GROUP CANADA, INC., 6010 Tomken Road, Mississauga, ON L5T 1X9
Telephone No.: (905) 670-0220, 1-877-935-3226
Web site: www.esab.ca

2. HAZARDS IDENTIFICATION

Emergency Overview: Metal wires or rods in varying colors. These products are normally not considered hazardous as shipped. Gloves should be worn when handling to prevent cuts and abrasions.

These products contain nickel, which is classified as toxic by prolonged inhalation, a skin sensitizer and a suspect carcinogen. In the form that nickel is present in these products it does not contribute to a hazard classification of the products.

Skin contact is normally no hazard but should be avoided to prevent possible allergic reactions.

Persons with a pacemaker should not go near welding or cutting operations until they have consulted their doctor and obtained information from the manufacturer of the device.

When these products are used in a welding process, the most important hazards are heat, radiation, electric shock and welding fumes.

Heat: Spatter and melting metal can cause burn injuries and start fires.

Radiation: Arc rays can severely damage

eyes or skin. Electricity: Electric shock can kill.

Fumes: Overexposure to welding fumes may result in symptoms like metal fume fever, dizziness, nausea, dryness or irritation of the nose, throat or eyes. Chronic overexposure to welding fumes may affect pulmonary function. Prolonged inhalation of nickel and chromium compounds above safe exposure limits can cause cancer. Overexposure to manganese and manganese compounds above safe exposure limits can cause irreversible damage to the central nervous system, including the brain, symptoms of which may include slurred speech, lethargy, tremor, muscular weakness, psychological disturbances and spastic gait.

4. FIRST AID MEASURES

Inhalation: If breathing has stopped, perform artificial respiration and obtain medical assistance immediately! If breathing is difficult, provide fresh air and call physician.

Eye contact: For radiation burns due to arc flash, see physician. To remove dusts or fumes flush with water for at least fifteen minutes. If irritation persists, obtain medical assistance.

Skin contact: For skin burns from arc radiation, promptly flush with cold water. Get medical attention for burns or irritations that persist. To remove dust or particles wash with mild soap and water.

Electric shock: Disconnect and turn off the power. Use a nonconductive material to pull victim away from contact with live parts or wires. If not breathing, begin artificial respiration, preferably mouth-to-mouth. If no detectable pulse, begin Cardio Pulmonary Resuscitation (CPR). Immediately call a physician.

General: Move to fresh air and call for medical aid.

5. FIRE FIGHTING MEASURES

No specific recommendations for welding consumables. Welding arcs and sparks can ignite combustible and flammable materials. Use the extinguishing media recommended for the burning materials and fire situation. Wear self-contained breathing apparatus as fumes or vapors may be harmful.

6. ACCIDENTAL RELEASE MEASURES

Solid objects may be picked up and placed into a container. Liquids or pastes should be scooped up and placed into a container. Wear proper protective equipment while handling these materials. Do not discard as refuse.

Personal precautions: refer to Section 8.

Environmental precautions: refer to Section 13.

7. HANDLING AND STORAGE

Handling:

Handle with care to avoid stings and cuts. Wear gloves when handling welding consumables. Avoid exposure to dust. Do not ingest. Some individuals can develop an allergic reaction to certain materials.

Retain all warning and identity labels.

Storage:

Keep separate from chemical substances like acids and strong bases, which could cause chemical reactions.

ESAB (2014). ESAB OK® bare stainless steel welding electrodes and rods. (Safety Data Sheet).

<https://www.esab.ca/ca/en/support/documentation/upload/can324.pdf>

This document has been modified. Sections 3 and 8-16 (inclusive) are not included here. This document is not an official version.