

**TEACHER'S
GUIDE**

**MAKE
MATH
WORK**

**Preparing Indigenous Students for
Apprenticeship and Employment**

MIRANDA MILLER

**10 NUMERACY
WORKBOOKS**



MAKE MATH WORK

TEACHER'S GUIDE

Answer Key for 10 Workbooks

By Miranda Miller



2014

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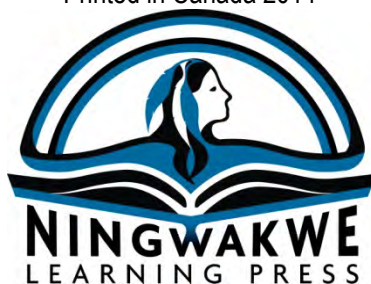


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Make Math Work: Preparing Indigenous Students for Apprenticeship and Employment

About The Workbooks

Based on community needs, Ningwakwe Learning Press chose ten unique occupations. These were chosen to reflect not only the most representative of entry level jobs for Aboriginal people, but also occupations where there is a gap in what employers need. Math skills are needed in every occupation and a specific math topic was paired with each of these ten occupations. Each workbook focuses on one area of math that is related to a chosen career path. These workbooks are designed to help literacy learners understand and practice math concepts. They can be used to practice real-life workplace tasks and develop math skills.

Money – Cashier
Ratios and Proportions – Cook/Baker
Height, Weight and Distance – Transport Truck Driver
Tables, Charts and Graphs – Band Office Administrative Assistant
Estimation – Hairstylist
Measurement – Carpenter
Fractions – Plumber
Area and Angles – Welder
Averages – Hunting and Fishing Guide
Budgeting – Personal Support Worker

This guide is designed for the learner Goal Path: **Employment & Apprenticeship**
It is suitable for learners with the End Goals: **Understand and Use Numbers**

We have tried to keep the OALCF math concepts and practice at Level 1. Some career paths require more-advanced math skills. These may be at OALCF Level 2. They are shown here because they are real-life tasks that may be presented on the first day of a job.

Each workbook follows this structure:

First Nation Traditional Knowledge

This provides a cultural frame of reference along with a historical teaching to show how math skills have always been used in Indigenous cultures.

Job: [Specific Employment Descriptor]

This section describes a day in the life of the specific job and what kind of tasks may be expected.

Why Math?

Although some careers require many aspects of math, we have focussed only on one per workbook. This allows for the workbooks to be completed individually or the learner can pick and choose which math topics they need more skills development in.

Tasks

A short description of a real-life person and their experiences start off the mathematical explanation. A fill-in-the-blanks workbook sheet is then provided for the learner to practice this math concept. Although most of the tasks are attempted to be authentic and level 1, the skills do get harder throughout the workbook.

Test Your Knowledge

The last page of each workbook is an 8 question short test based on the concepts practiced in that one workbook. Each test is unique. The test is structured in a way that allows learners to engage in test-taking, practice filling in the answers like on GED and other formal tests. It is not meant to be hard or stressful but provide practice at the skills development they have just learned.

How this Guide Works

This Teacher's Guide contains the answer keys for all ten of the numeracy workbooks in the *Make Math Work* series. Individual tasks may incorporate various Competencies and apply to multiple Goal Paths. A chart outlining the relevant OALCF Competencies and Task Groups precedes each workbook answer key.

The number codes within each chart consist of a letter and a number. The letter indicates to which OALCF competency the activity applies. The numbered extension indicates the learner level. For example, an activity marked as a B3.1 tells the practitioner it is:

B: from the Communicate Ideas and Information Competency

3: from the Complete and Create Documents task group

1: suitable for a Level 1 or higher learner.

At the end of this Teacher's Guide, we have included a **Certificate of Completion** for your use if you want to encourage the completion of all 10 workbooks.

Workbook 1: Money – Cashier

OALCF Competencies & Task Groups															
	Competencies	Find and Use Information			Communicate Ideas and Information				Understand and Use Numbers				Use Digital Technology	Manage Learning	Engage with Others
Task #	Activity Name	Read continuous text	Interpret documents	Extract info from films, broadcasts & presentations	Interact with others	Write continuous text	Complete and create documents	Express oneself creatively	Manage money	Manage time	Use measures	Manage data			
	Task Group #	A1	A2	A3	B1	B2	B3	B4	C1	C2	C3	C4	D	E	F
1	Identifying Currency								C1.1						
2	Let's Make Change	A1.1							C1.1						
3	Rounding Cents								C1.1						
4	Counting Inventory		A2.1									C4.1			
5	Price Comparisons						B3.1a		C1.1						
6	Converting Percentages to Decimals								C1.1						
7	Applying Discounts	A1.1							C1.2						
8	Tax Exemptions	A1.1	A2.1												

OALCF Goal Paths	Employment	Apprenticeship	Secondary School Credit	Postsecondary Credit	Independence
	x	x			

Task 1: Identifying Currency

Learning Outcome: Have learners complete Task 1 in their workbook. The purpose is to help learners improve their ability to recognize different denominations of Canadian currency.

OALCF: This activity addresses Competency C Level 1. The applicable Task Group is C1: Manage money.

Duration: 5-10 minutes

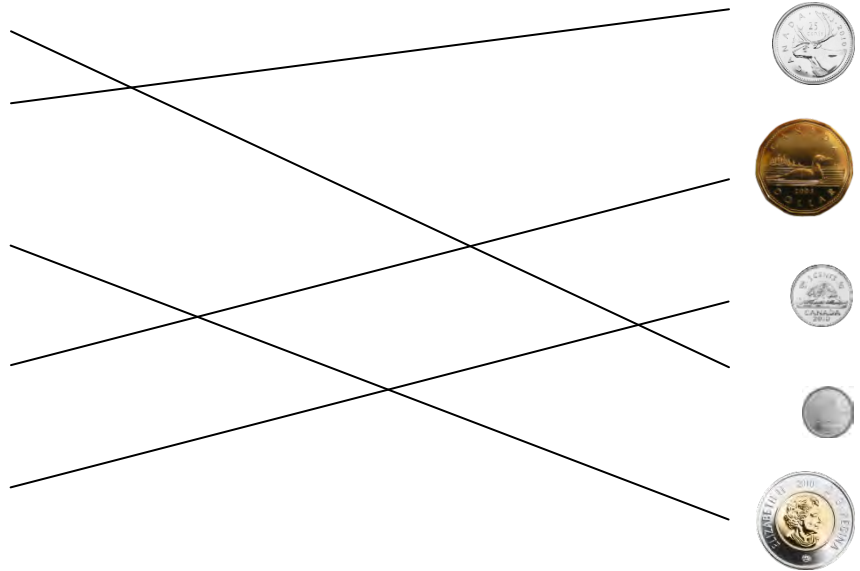
Answer Key: Dime – 10¢

Quarter - 25¢

Toonie - \$2

Loonie - \$1

Nickel - 5¢



1. \$200 2. \$15 3. \$33.25 4. \$85 5. \$188

Task 2: Let's Make Change

Learning Outcome: Have learners complete Task 2 in their workbook. The purpose is to help learners improve their money math skills and ability to calculate change in a retail setting.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers at Level 1. The applicable Task Groups are A1: Read continuous text C1: Manage money.

Duration: 30-45 minutes

- Answers:**
1. a) \$12.75
b) \$7.25
c) Any combination of coins amounting to exactly \$7.25 is correct.
 2. a) \$16.25
b) \$3.75
c) Any combination of coins amounting to exactly \$3.75 is correct.
 3. a) \$12.00
b) \$3.00
c) Any combination of coins amounting to exactly \$3.00 is correct.
 4. a) \$14.45
b) \$0.55
c) Any combination of coins amounting to exactly \$0.55 is correct.

5. Any two combinations of coins amounting to exactly \$2.70 are correct.
6. Any two combinations of coins amounting to exactly \$6.00 are correct.
7. Any two combinations of bills and coins amounting to exactly \$24.20 are correct.

Task 3: Rounding Cents

Learning Outcome: Have learners complete Task 3 in their workbook. The purpose is to help learners improve their business math skills and ability to function successfully in a retail setting.

OALCF: This activity addresses Competency C: Understand and Use Numbers at Level 1. The applicable Task Group is C1: Manage money.

Duration: 10-15 minutes

Answer Key:	1. \$1.25	6. \$1.15	10. \$11.00
	2. \$2.35	7. \$9.35	11. \$60
	3. \$8.35	8. \$3.40	12. \$90
	4. \$6.20	9. \$5.30	13. \$20
	5. \$4.50		

Task 4: Counting Inventory

Learning Outcome: Have learners complete Task 4 in their workbook. The purpose is to help learners improve their business math skills and better understand the specific requirements of a cashier position.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers at Level 1. The applicable Task Groups are A2: Interpret documents and C4: Manage data.

Duration: 10-15 minutes

Answer Key:	1. 5	2. 7	3. 3	4. 9	5. 10
--------------------	------	------	------	------	-------

Task 5: Price Comparisons

Learning Outcome: Have learners complete Task 5 in their workbook. The purpose is to help learners practice price comparisons in preparation for employment in a retail setting.

OALCF: This activity addresses Competencies B: Communicate Ideas and Information and C: Understand and Use Numbers at Level 1. The applicable Task Groups are B3: Complete and create documents and C4: Manage data.

Duration: 20 to 30 minutes

- Steps:**
1. Allow 20-30 minutes for learners to complete the activity.
 2. Mark the worksheet using the answer key below.

Answer Key:	Product	Brand 1	Brand 2	Brand 1	Brand 2	Best Deal
				Price per Unit	Price per Unit	
	Apples	Delicious 12 for \$4	Ida Red 10 for \$3.50	\$0.33 per apple	\$0.35 per apple	Delicious
	Oranges	Navel 18 for \$8	Mandarin 12 for \$6.50	\$0.44 per orange	\$0.54 per orange	Orange-O
	Candy	Yum Yums 500 g for \$6.25	Yum Yums 1kg for \$13	\$12.50/kg, or \$6.25 per 0.5kg	\$13/kg, or \$6.50 per 0.5 pound.	Yum Yums 500g
	Juice	Tropiummy 500 mL bottle for \$3.40	SuperTropica 500 mL bottle for \$3.50	\$3.40 per 500ml bottle	\$3.50 per 500ml bottle	Tropiummy
	2% Milk	MooCow 1 L for \$4.20	Bessie's Best 4 L for \$9.25	\$4.20 per litre	\$2.31 per litre	Bessie's Best
	Washer Fluid	Squeeky Kleen 1.5 L for \$3.80	SuperClean 2 L for \$4.80	\$2.53 per litre	\$2.40 per litre	SuperClean
	Engine Oil	Awesome Moto 1 L for \$5	Bulk Motors 4 L for \$16	\$5 per litre	\$4 per litre	Bulk Motors

Task 6: Converting Percentages to Decimals

Learning Outcome: Have learners complete Task 6 in their workbook. The purpose is to help learners improve their math skills in preparation for common cashier employment scenarios.

OALCF: This activity addresses Competency C: Understand and Use Numbers. The applicable Task Group is C4: Manage data.

Duration: 15 to 20 minutes Note: Learners may NOT use a calculator for this activity

- Steps:**
1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
 2. Allow 15-20 minutes for learners to complete the activity.
 3. Mark the worksheet using the answer key below.

Answer Key:	1. 0.16	5. 0.05	9. \$37.69
	2. 0.47	6. \$2.85	10. \$4.70
	3. 0.09	7. \$9.14	
	4. 0.13	8. \$0.97	

Task 7: Applying Discounts

Learning Outcome: Have learners complete Task 7 in their workbook. The purpose is to help learners improve their math skills and better understand how discounts work in a retail setting.

OALCF: This activity addresses Competencies A: Find and Use Information at Level 1 and C: Understand and Use Numbers. The applicable Task Groups are A1: Read continuous text and C1: Manage money.

Duration: 15-20 minutes

- Steps:**
1. Allow 15-20 minutes for learners to complete the activity.

2. Mark the worksheet using the answer key below.

Answer Key:

	Item	Units	Discount	TOTAL
1	Water	6	\$0.60	\$5.40
2	Chips	2	\$0	\$6.00
3	Gasoline (16.78 L)	1	\$2.00	\$18.00
4	Gum	1	\$0	\$2.00
5	Chili	2	\$0.50	\$4.50
			Subtotal	\$35.90

Task 8:

Tax Exemptions

Learning Outcome: Have learners complete Task 8 in their workbook. The purpose is to help learners better understand how tax exemptions work in Canada in preparation for employment as a cashier.

OALCF: This activity addresses Competency A: Communicate Ideas and Information at Level 1. The applicable Task Groups are A1: Read continuous text and A2: Interpret documents.

Duration: 15 minutes

Steps:

1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
2. Allow 15 minutes for learners to complete the activity.
3. Mark the worksheet using the answer key below.

Answer Key:

1. F
2. T
3. F
4. T
5. T

Test Your Knowledge Answers

Money – Cashier (Pg 28)

1. c 2. b 3. e 4. e 5. d 6. a 7. b 8. b

Workbook 2: Ratios and Proportions - Cook/Baker

OALCF Competencies & Task Groups															
	Competencies	Find and Use Information			Communicate Ideas and Information				Understand and Use Numbers				Use Digital Technology	Manage Learning	Engage with Others
Task #	Activity Name	Read continuous text	Interpret documents	Extract info from films, broadcasts & presentations	Interact with others	Write continuous text	Complete and create documents	Express oneself creatively	Manage money	Manage time	Use measures	Manage data			
	Task Group #	A1	A2	A3	B1	B2	B3	B4	C1	C2	C3	C4	D	E	F
1	Common Abbreviations in Cooking & Baking	A1.1	A2.1								C3.1				
2	Converting Measurements						B3.1a				C3.1				
3	Recognizing Ratios & Proportions						B3.1a				C3.1	C4.1			
4	Expressing Ratios	A1.1									C3.1	C4.1			
5	Simplifying Ratios						B3.1a				C3.1	C4.1			
6	Order of Ratios	A1.1									C3.1	C4.1			
7	Making Larger Quantities with Recipes	A1.1									C3.1	C4.1			
8	Recipe Proportions	A1.1									C3.1	C4.1			

OALCF Goal Path	Employment	Apprenticeship	Secondary School Credit	Postsecondary Credit	Independence
	x	x			

Task 1: Common Abbreviations in Cooking & Baking

Learning Outcome: Have learners complete Task 1 in their workbook. The purpose is to help learners recognize common units of measurement and improve their ability to succeed in a cook or baker position.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers at Level 1. The applicable Task Groups are A1: Read continuous text, A2: Interpret documents and C3: Use measures.

Duration: 15 minutes

- Steps:**
1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
 2. Allow 15 minutes for learners to complete the activity.
 3. Mark the worksheet using the answer key below.

- Answer Key:**
1. Kilogram
 2. Packages
 3. Cups
 4. Fluid ounces
 5. Litre

Task 2: Converting Measurements

Learning Outcome: Have learners complete Task 2 in their workbook. The purpose is to help learners recognize common measurement abbreviations and improve their ability to succeed in a cook or baker position.

OALCF: This activity addresses Competencies B: Communicate Ideas and Information and C: Understand and Use Numbers at Level 1. The applicable Task Groups are B3: Complete and create documents and C3: Use measures.

Duration: 20-30 minutes

- Steps:**
1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
 2. Allow 20-30 minutes for learners to complete the activity.
 3. Mark the worksheet using the answer key below.

Answer Key:

Cups and Millilitres (mL)	
Conventional Measure	Metric Standard Measure
¼ cup	60 mL
1/3 cup	75 mL
½ cup	125 mL
2/3 cup	150 mL
¾ cup	175 mL
1 cup	250 mL
4 ½ cups	1 L

Teaspoons (tsp) and Millilitres (mL)	
Conventional Measure	Metric Standard Measure
1/8 tsp	0.5 mL
¼ tsp	1 mL
½ tsp	2 mL
1 tsp	5 mL
2 tsp	10 mL
1 tablespoon (tbsp.)	15 mL

Dry Measures (weight in ounces and grams)	
Conventional Measure	Metric Standard Measure
1 ounce (oz)	28 grams (g)
5 oz	140 g
8 oz	250 g
16 oz	500 g
32 oz	1000 g, or 1 kilogram (kg)

Task 3: Recognizing Ratios and Proportions























Learning Outcome: Have learners complete Task 3 in their workbook. The purpose is to help learners recognize rates, ratios and proportions as they apply in a kitchen setting.

OALCF: This activity addresses Competencies B: Communicate Ideas and Information and C: Understand and Use Numbers. The applicable Task Groups are B3: Complete and create documents and C3: Use measures.

Duration: 10 minutes

- Steps:**
1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
 2. Allow 10 minutes for learners to complete the activity.
 3. Mark the worksheet using the answer key below.

Answer Key:

			Ratio Using Colon	Ratio as a Fraction
	to		3:4	$\frac{3}{4}$
	to		2:3	$\frac{2}{3}$
	to		3:4	$\frac{3}{4}$
	to		1:2	$\frac{1}{2}$
	to		6:3	$\frac{6}{3}$
	to		2:4	$\frac{2}{4}$
	to		5:3	$\frac{5}{3}$
	to		4:1	$\frac{4}{1}$
	to		3:7	$\frac{3}{7}$
	to		4:2	$\frac{4}{2}$
	to		3:2	$\frac{3}{2}$

Task 4: Expressing Ratios

Learning Outcome: Have learners complete Task 4 in their workbook. The purpose is to help learners solve ratios as they apply in a kitchen setting.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A1: Read continuous text, C3: Use measures and C4: Manage data at Level 1.

Duration: 10-15 minutes

Steps:

1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
2. Allow 10-15 minutes for learners to complete the activity.
3. Mark the worksheet using the answer key below.

Answer Key:

1. 4:1	5. 3:1	8. 6:2 (or 3:1)
2. 6:2 (or 3:1)	6. 3:2	9. 1:1
3. 4:1	7. 3:1	10. 20:1
4. 3:2		

Task 5: Simplifying Ratios

Learning Outcome: Have learners complete Task 5 in their workbook. The purpose is to help learners understand ratios as they apply in a kitchen setting, in preparation for employment.

OALCF: This activity addresses Competencies B: Communicate Ideas and Information and C: Understand and Use Numbers at Level 1. The applicable Task Groups are B3: Complete and create documents, C3: Use measures and C4: Manage data.

Duration: 15 minutes

Steps:

1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
2. Allow 15 minutes for learners to complete the activity.
3. Mark the worksheet using the answer key below.

Answer Key:

Ratio	Number both can be divided	Simplified Ratio
10:15	5	2:3
2:10	2	1:5
3:9	3	1:3
6:4	2	3:2
4:10	2	2:5
15:6	3	5:2
7:14	2	1:2
12:3	3	4:1
8:12	4	2:3
15:5	5	3:1

Task 6: Order of Ratios


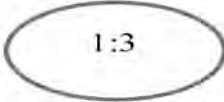




Learning Outcome: Have learners complete Task 6 in their workbook. The purpose is to help learners understand ratios as they apply in a kitchen setting, in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A1: Read continuous text, C3: Use measures and C4: Manage data at Level 1.

Duration: 10 minutes

- Steps:**
1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
 2. Allow 10 minutes for learners to complete the activity.
 3. Mark the worksheet using the answer key on the next page.

Answer Key:

 <p>Mix 1 can of juice to 3 cans of water. What is the ratio of juice to water?</p>		<p>3:1</p>
 <p>Mix 1 part window cleaner to 4 parts water. What is the ratio of water to cleaner?</p>	<p>1:4</p>	
 <p>Mix 3 parts floor cleaner with 5 parts water. What is the ratio of cleaner to water?</p>	<p>5:3</p>	

Task 7: Making Larger Quantities with Recipes

Learning Outcome: Have learners complete Task 7 in their workbook. The purpose is to help learners understand proportions as they apply in a kitchen setting, in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A1: Read continuous text, C3: Use measures and C4: Manage data at Level 1.

Duration: 15-20 minutes

- Steps:**
1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
 2. Allow 15-20 minutes for learners to complete the activity.
 3. Mark the worksheet using the answer key below.

Answer Key:

$$1. \frac{5}{1} = \frac{15}{3}$$

$$5. \frac{1}{6} = \frac{3}{18}$$

$$2. \frac{4}{1} = \frac{8}{2}$$

$$6. \frac{1}{2} = \frac{2}{4}$$

$$3. \frac{2}{1} = \frac{10}{5}$$

$$7. \frac{2}{3} = \frac{4}{6}$$

$$4. \frac{1}{1} = \frac{6}{6}$$

$$8. \frac{1}{7} = \frac{3}{21}$$

Task 8: Recipe Proportions

Learning Outcome: Have learners complete Task 8 in their workbook. The purpose is to help learners understand proportions as they apply in a kitchen setting, in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A1: Read continuous text, C3: Use measures and C4: Manage data at Level 1.

Duration: 10 minutes

- Steps:**
1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
 2. Allow 10 minutes for learners to complete the activity.
 3. Mark the worksheet using the answer key on the next page.

Answer Key:

Carrots	3	4.5
Cups of soup	6	9
Cleaner	3	2
Feet of counter	9	6

	Potatoes	3	360	
	Guests	1	120	
	chocolate cubes	9	45	
	cake batter	1	5	

Test Your Knowledge Answers**Ratios and Proportions – Cook/Baker (Pg 23)**

1. B
2. D
3. C
4. A
5. B
6. D
7. E
8. C

Workbook 3: Height, Weight and Distance - Transport Truck Driver

OALCF Competencies & Task Groups															
	Competencies	Find and Use Information			Communicate Ideas and Information				Understand and Use Numbers				Use Digital Technology	Manage Learning	Engage with Others
Task #	Activity Name	Read continuous text	Interpret documents	Extract info from films, broadcasts & presentations	Interact with others	Write continuous text	Complete and create documents	Express oneself creatively	Manage money	Manage time	Use measures	Manage data			
	Task Group #	A1	A2	A3	B1	B2	B3	B4	C1	C2	C3	C4	D	E	F
1	Measuring Tire Tread		A2.1								C3.1				
2	Measuring Truck Height		A2.1								C3.1				
3	Reading Weigh Scales		A2.1												
4	Calculating Load Weight	A1.1									C3.1	C4.1			
5	Determining if the Load is Overweight										C3.1	C4.1			
6	Reading an Odometer		A2.1								C3.1	C4.1			
7	Measuring Trip Time with Distance and Speed	A1.1								C2.1		C4.1			
8	Calculating Pay for a Trip								C1.1		C3.1	C4.1			

OALCF Goal Path	Employment	Apprenticeship	Secondary School Credit	Postsecondary Credit	Independence
	x	x			x

Task 1:	Measuring Tire Tread						
Learning Outcome:	Have learners complete Task 1 in their workbook. The purpose is to help learners understand measurements as they apply in an employment setting.						
OALCF:	This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents and C3: Use measures at Level 1.						
Duration:	10 minutes						
Steps:	<ol style="list-style-type: none"> Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. Allow 10 minutes for learners to complete the activity. Mark the worksheet using the answer key below. 						
Answer Key:	<table> <tr> <td>1. 2</td> <td>4. 0.25</td> </tr> <tr> <td>2. 10</td> <td>5. 2.25</td> </tr> <tr> <td>3. 0.5</td> <td></td> </tr> </table>	1. 2	4. 0.25	2. 10	5. 2.25	3. 0.5	
1. 2	4. 0.25						
2. 10	5. 2.25						
3. 0.5							

Task 2:	Measuring Truck Height				
Learning Outcome:	Have learners complete Task 2 in their workbook. The purpose is to help learners understand measurements as they apply in an employment setting.				
OALCF:	This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents and C3: Use measures at Level 1.				
Duration:	10 minutes				
Steps:	<ol style="list-style-type: none"> Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. Allow 10 minutes for learners to complete the activity. Mark the worksheet using the answer key below. 				
Answer Key:	<table> <tr> <td>1. Yes</td> <td>3. No</td> </tr> <tr> <td>2. No</td> <td>4. Yes</td> </tr> </table>	1. Yes	3. No	2. No	4. Yes
1. Yes	3. No				
2. No	4. Yes				

Task 3:	Reading Weigh Scales									
Learning Outcome:	Have learners complete Task 3 in their workbook. The purpose is to help learners understand measurements as they apply in an employment setting.									
OALCF:	This activity addresses Competency A: Find and Use. The applicable Task Group is A2: Interpret documents at Level 1.									
Duration:	10 minutes									
Steps:	<ol style="list-style-type: none"> Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. Allow 10 minutes for learners to complete the activity. 4. Mark the worksheet using the answer key below. 									
Answer Key:	<table> <tr> <td>1. 130 lbs</td> <td>4. 40,250 lbs</td> <td>7. 42,420 kg</td> </tr> <tr> <td>2. 266 lbs</td> <td>5. 22,895 lbs</td> <td>8. 201 lbs</td> </tr> <tr> <td>3. 19,691 kg</td> <td>6. 36,782 lbs</td> <td></td> </tr> </table>	1. 130 lbs	4. 40,250 lbs	7. 42,420 kg	2. 266 lbs	5. 22,895 lbs	8. 201 lbs	3. 19,691 kg	6. 36,782 lbs	
1. 130 lbs	4. 40,250 lbs	7. 42,420 kg								
2. 266 lbs	5. 22,895 lbs	8. 201 lbs								
3. 19,691 kg	6. 36,782 lbs									

Task 4:	Calculating Load Weight						
Learning Outcome:	Have learners complete Task 4 in their workbook. The purpose is to help learners understand weight and measurements as they apply in an employment setting.						
OALCF:	This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A1: Read continuous text, C3: Use measures and C4: Manage data at Level 1.						
Duration:	10-20 minutes						
Steps:	<ol style="list-style-type: none"> 1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. 2. Allow 10-20 minutes for learners to complete the activity. 3. Mark the worksheet using the answer key below. 						
Answer Key:	<table> <tr> <td>1. 2000 kg</td> <td>4. 10 000 kg</td> </tr> <tr> <td>2. 400 kg</td> <td>5. 900 kg</td> </tr> <tr> <td>3. 18 000 kg</td> <td></td> </tr> </table>	1. 2000 kg	4. 10 000 kg	2. 400 kg	5. 900 kg	3. 18 000 kg	
1. 2000 kg	4. 10 000 kg						
2. 400 kg	5. 900 kg						
3. 18 000 kg							

Task 5:	Determining if the Load is Overweight										
Learning Outcome:	Have learners complete Task 5 in their workbook. The purpose is to help learners understand weight and measurements as they apply in an employment setting.										
OALCF:	This activity addresses Competency C: Understand and Use Numbers. The applicable Task Groups are C3: Use measures and C4: Manage data at Level 1.										
Duration:	10-15 minutes										
Steps:	<ol style="list-style-type: none"> 1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. 2. Allow 10-15 minutes for learners to complete the activity. 3. Mark the worksheet using the answer key below. 										
Answer Key:	<table> <tr> <td>1. Underweight – 1250 kg</td> <td>6. Underweight – 19,180 kg</td> </tr> <tr> <td>2. Overweight – 2150 kg</td> <td>7. Overweight – 14,000 kg</td> </tr> <tr> <td>3. Overweight – 10 kg</td> <td>8. Underweight – 1 kg</td> </tr> <tr> <td>4. Underweight – 4050 kg</td> <td></td> </tr> <tr> <td>5. Overweight – 4789 kg</td> <td></td> </tr> </table>	1. Underweight – 1250 kg	6. Underweight – 19,180 kg	2. Overweight – 2150 kg	7. Overweight – 14,000 kg	3. Overweight – 10 kg	8. Underweight – 1 kg	4. Underweight – 4050 kg		5. Overweight – 4789 kg	
1. Underweight – 1250 kg	6. Underweight – 19,180 kg										
2. Overweight – 2150 kg	7. Overweight – 14,000 kg										
3. Overweight – 10 kg	8. Underweight – 1 kg										
4. Underweight – 4050 kg											
5. Overweight – 4789 kg											

Task 6:	Reading an Odometer
Learning Outcome:	Have learners complete Task 6 in their workbook. The purpose is to help learners understand time and distance measurements as they apply in an employment setting.
OALCF:	This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents, C3: Use measures and C4: Manage data at Level 1.
Duration:	10-15 minutes
Steps:	<ol style="list-style-type: none"> 1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. 2. Allow 10-15 minutes for learners to complete the activity. 3. 4. Mark the worksheet using the answer key below.

Answer Key:	1. 2264 km	4. 2198 km
	2. 731 km	5. 2445 km
	3. 4118 km	

Task 7:	Measuring Trip Time
Learning Outcome:	Have learners complete Task 7 in their workbook. The purpose is to help learners understand time and distance measurements as they apply in an employment setting.
OALCF:	This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A1: Read continuous text, C2: Manage time and C4: Manage data at Level 1.
Duration:	10-20 minutes
Steps:	<ol style="list-style-type: none"> 1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. 2. Allow 10-20 minutes for learners to complete the activity. 3. Mark the worksheet using the answer key below.
Answer Key:	<ol style="list-style-type: none"> 1. 9.13 hours – rounded to 9 hours or 9 ¼ hours may be considered correct. 2. 42.13 hours – rounded to 42 hours or 42 ¼ hours may be considered correct. 3. 27.01 hours, or 27 hours. 4. 44.98 hours, or 45 hours.

Task 8:	Calculating Pay for a Trip								
Learning Outcome:	Have learners complete Task 8 in their workbook. The purpose is to help learners understand time, distance and money measurements as they apply in an employment setting.								
OALCF:	This activity addresses Competency C: Understand and Use Numbers. The applicable Task Groups are C1: Manage money, C3: Use measures and C4: Manage data at Level 1.								
Duration:	10-20 minutes								
Steps:	<ol style="list-style-type: none"> 1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. 2. Allow 10-20 minutes for learners to complete the activity. 3. 4. Mark the worksheet using the answer key below. 								
Answer Key:	<table> <tr> <td>1. \$105.00</td> <td>5. \$322.00</td> </tr> <tr> <td>2. \$180.00</td> <td>6. \$191.10</td> </tr> <tr> <td>3. \$69.00</td> <td>7. \$979.80</td> </tr> <tr> <td>4. \$289.80</td> <td>8. \$980.00</td> </tr> </table>	1. \$105.00	5. \$322.00	2. \$180.00	6. \$191.10	3. \$69.00	7. \$979.80	4. \$289.80	8. \$980.00
1. \$105.00	5. \$322.00								
2. \$180.00	6. \$191.10								
3. \$69.00	7. \$979.80								
4. \$289.80	8. \$980.00								

Test Your Knowledge Answers

Height, Weight and Distance – Transport Truck Driver (Pg 24)

- | | |
|------|------|
| 1. D | 5. B |
| 2. B | 6. D |
| 3. D | 7. C |
| 4. A | 8. A |

Workbook 4: Estimation - Hairstylist

OALCF Competencies & Task Groups															
Competencies		Find and Use Information			Communicate Ideas and Information				Understand and Use Numbers				Use Digital Technology	Manage Learning	Engage with Others
Task #	Activity Name	Read continuous text	Interpret documents	Extract info from films, broadcasts & presentations	Interact with others	Write continuous text	Complete and create documents	Express oneself creatively	Manage money	Manage time	Use measures	Manage data			
	Task Group #	A1	A2	A3	B1	B2	B3	B4	C1	C2	C3	C4	D	E	F
1	Estimating Length						B3.1				C3.1	C4.1			
2	Estimating Liquid Volume						B3.1				C3.1	C4.1			
3	Estimating Appointment Booking	A1.1	A2.1							C2.1		C4.1			
4	Estimating Drying Time	A1.1	A2.1							C2.1		C4.1			
5	Estimating Colour Time	A1.1	A2.1							C2.1		C4.1			
6	Estimating Product Cost		A2.1						C1.1			C4.1			
7	Estimating Appointment Fee	A1.1	A2.1						C1.1			C4.1			

OALCF Goal Path	Employment	Apprenticeship	Secondary School Credit	Postsecondary Credit	Independence
	x	x			

Task 1:	Estimating Length
Learning Outcome:	Have learners complete Task 1 in their workbook. The purpose is to help learners understand estimation and measurement as they apply in employment scenarios.
OALCF:	This activity addresses Competencies B: Communicate Ideas and Information and C: Understand and Use Numbers. The applicable Task Groups are B3: Complete and create documents, C3: Use measures and C4: Manage data at Level 1.
Duration:	30 minutes
Steps:	1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.

Answer Key: 2. Allow 30 minutes for learners to complete the activity.
 3. Review the worksheet to ensure students have completed estimations and measurements.
 There are no exact right answers in estimation. Have the students see how far away the actual measurements are to their estimated length.

Task 2: Estimating Liquid Volume

Learning Outcome: Have learners complete Task 2 in their workbook. The purpose is to help learners understand estimation and measurement as they apply in employment scenarios.

OALCF: This activity addresses Competencies B: Communicate Ideas and Information and C: Understand and Use Numbers. The applicable Task Groups are B3: Complete and create documents, C3: Use measures and C4: Manage data at Level 1.

Duration: 30 minutes

Steps:

1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
2. Allow 30 minutes for learners to complete the activity.
3. Review the worksheet to ensure students have completed estimations and measurements.
4. Allow an opportunity for learners to ask questions or discuss the activity; record and file the results for the learner.

Answer Key: The practitioner must use their judgment to determine whether learners have successfully completed the activity. Consider learners' ability to complete the activity within the assigned time.

Task 3: Estimating Appointment Booking

Learning Outcome: Have learners complete Task 3 in their workbook. The purpose is to help learners understand estimation and measurement as they apply in employment scenarios.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A1: Read continuous text, A2: Interpret documents, C2: Manage time and C4: Manage data at Level 1.

Duration: 15 minutes

Steps:

1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
2. Allow 15 minutes for learners to complete the activity.
3. Mark the worksheet using the answer key below.

Answer Key:

1. 2 hours 40 minutes
2. 2 hours
3. 1 hour 20 minutes
4. 2 hours 50 minutes

Task 4: Estimating Drying Time

Learning Outcome: Have learners complete Task 4 in their workbook. The purpose is to help learners understand estimation and measurement as they apply in employment scenarios.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use

	Numbers. The applicable Task Groups are A1: Read continuous text, A2: Interpret documents, C2: Manage time and C4: Manage data at Level 1.
Duration:	15 minutes
Steps:	<ol style="list-style-type: none"> 1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. 2. Allow 15 minutes for learners to complete the activity. 3. Mark the worksheet using the answer key below.
Answer Key:	<p>Learner should have circled "Joe." Learner should have circled "Chad." Sweep the floor – Yes Restock the shelves – No Fold towels – Yes Organize the shampoo stations - No</p>

Task 5:	Estimating Colour Time
Learning Outcome:	Have learners complete Task 5 in their workbook. The purpose is to help learners understand estimation and measurement as they apply in employment scenarios.
OALCF:	This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A1: Read continuous text, A2: Interpret documents, C2: Manage time and C4: Manage data at Level 1.
Duration:	15 minutes
Steps:	<ol style="list-style-type: none"> 1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. 2. Allow 15 minutes for learners to complete the activity. 3. Mark the worksheet using the answer key below.
Answer Key:	<p>3.5 hours 1 hour 2 hours</p>

Task 6:	Estimating Product Cost
Learning Outcome:	Have learners complete Task 6 in their workbook. The purpose is to help learners understand estimation and measurement as they apply in employment scenarios.
OALCF:	This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents, C1: Manage money and C4: Manage data at Level 1.
Duration:	15 minutes
Steps:	<ol style="list-style-type: none"> 1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. 2. Allow 15 minutes for learners to complete the activity. 3. Mark the worksheet using the answer key below.
Answer Key:	<ol style="list-style-type: none"> 1. sample answer given 2. 3 bottles of hairspray = \$30 1 bottle of mousse = \$8 3 bottles of oil = \$21

Estimated Cost = **\$59**

3. 5 bottles of hairspray = \$50
 3 bottle of mousse = \$24
 4 bottles of oil = \$28
 Estimated Cost = **\$102**

4. 2 bottles of hairspray = \$20
 4 bottle of mousse = \$32
 3 bottles of oil = \$21
 Estimated Cost = **\$73**

Task 7: Estimating Appointment Fee

Learning Outcome: Have learners complete Task 7 in their workbook. The purpose is to help learners understand estimation and measurement as they apply in employment scenarios.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A1: Read continuous text, A2: Interpret documents, C1: Manage money and C4: Manage data at Level 1.

Duration: 20-30 minutes

- Steps:**
1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
 2. Allow 20-30 minutes for learners to complete the activity.
 3. Mark the worksheet using the answer key below.
 4. Allow an opportunity for learners to ask questions or discuss the activity; record and file the results for the learner.

Answer Key:

\$95
 \$64
 At least \$135
 \$80
 \$52

Test Your Knowledge Answers

Estimation - Hairstylist (Pg 23)

1. A
2. B
3. C
4. E
5. B
6. D
7. D

Workbook 5: Tables, Charts and Graphs - Band Office Administrative Assistant

OALCF Competencies & Task Groups															
	Competencies	Find and Use Information			Communicate Ideas and Information				Understand and Use Numbers				Use Digital Technology	Manage Learning	Engage with Others
Task #	Activity Name	Read continuous text	Interpret documents	Extract info from films, broadcasts & presentations	Interact with others	Write continuous text	Complete and create documents	Express oneself creatively	Manage money	Manage time	Use measures	Manage data			
	Task Group #	A1	A2	A3	B1	B2	B3	B4	C1	C2	C3	C4	D	E	F
1	Reading a Table		A2.1									C4.1			
2	Reading a Line Graph		A2.1									C4.1			
3	Chart Types		A2.1									C4.1			
4	Make a Bar Chart						B3.1					C4.1			
5	Verifying Timesheets		A2.1				B3.1			C2.1		C4.1			
6	Scheduling Appointments	A1.1	A2.1							C2.1		C4.1			
7	Verifying an Invoice		A2.1						C1.1			C4.1			

OALCF Goal Path	Employment	Apprenticeship	Secondary School Credit	Postsecondary Credit	Independence
	x	x			

Task 1:	Reading a Table
Learning Outcome:	Have learners complete Task 1 in their workbook. The purpose is to help learners understand tables, charts and graphs in preparation for employment scenarios.
OALCF:	This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: interpret documents and C4: Manage data at Level 1.
Duration:	10-15 minutes
Steps:	<ol style="list-style-type: none"> 1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. 2. Allow 10-15 minutes for learners to complete the activity. 3. Mark the worksheet using the answer key below.
Answer Key:	<p>Allan No, he has not confirmed. Theresa Two 12</p>

Task 2:	Reading a Line Graph
Learning Outcome:	Have learners complete Task 2 in their workbook. The purpose is to help learners understand tables, charts and graphs in preparation for employment scenarios.
OALCF:	This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: interpret documents and C4: Manage data at Level 1.
Duration:	10-15 minutes
Steps:	<ol style="list-style-type: none"> 1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. 2. Allow 10-15 minutes for learners to complete the activity. 3. Mark the worksheet using the answer key below.
Answer Key:	<p>26 degrees 4 degrees 27 degrees 3 degrees Monday</p>

Task 3:	Chart Types
Learning Outcome:	Have learners complete Task 3 in their workbook. The purpose is to help learners understand tables, charts and graphs in preparation for employment scenarios.
OALCF:	This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: interpret documents and C4: Manage data at Level 1.
Duration:	10-15 minutes
Steps:	<ol style="list-style-type: none"> 1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. 2. Allow 10-15 minutes for learners to complete the activity. 3. Mark the worksheet using the answer key below.

Answer Key:
Bar chart
Pie chart
Area chart
Area chart
Bar chart

Task 4: Make a Bar Chart

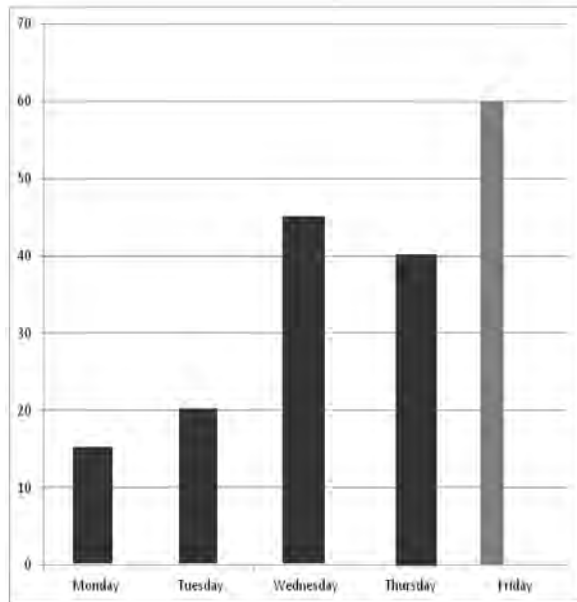
Learning Outcome: Have learners complete Task 4 in their workbook. The purpose is to help learners understand tables, charts and graphs in preparation for employment scenarios.

OALCF: This activity addresses Competencies B: Communicate Ideas and Information and C: Understand and Use Numbers. The applicable Task Groups are B3: Complete and create documents and C4: Manage data at Level 1.

Duration: 10-15 minutes

1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
2. Allow 10-15 minutes for learners to complete the activity.
3. Mark the worksheet by verifying that the information input to the chart is correct.

Answer Key:



Task 5: Verify Timesheets

Learning Outcome: Have learners complete Task 5 in their workbook. The purpose is to help learners understand tables, charts and graphs in preparation for employment scenarios.

OALCF: This activity addresses Competencies A: Find and Use Information, B: Communicate Ideas and Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents, B3: Complete and create documents, C2: Manage time and C4: Manage data at Level 1.

Workbook 5: Tables, Charts and Graphs - Band Office Administrative Assistant

Duration:	10-15 minutes
Steps:	<ol style="list-style-type: none">1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.2. Allow 10-15 minutes for learners to complete the activity.3. Mark the worksheet using the answer key below.
Answer Key:	Learner should have initialled each daily entry and signed the timesheet as it is correct. Learner should have circled Monday's hours worked/day entry and replaced with 4 hours, as well as replacing Total Hours Worked with 25 hours before signing. Learners should have circled and replaced Thursday's hours worked/day entry and replaced with 6.5 hours, as well as replacing Total Hours Worked with 32 hours before signing.

Task 6:	Scheduling Appointments
Learning Outcome:	Have learners complete Task 6 in their workbook. The purpose is to help learners understand tables, charts and graphs in preparation for employment scenarios.
OALCF:	This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A1: Read continuous text, A2: Interpret documents, C2: Manage time and C4: Manage data at Level 1.
Duration:	10-15 minutes
Steps:	<ol style="list-style-type: none">1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.1. Allow 10-15 minutes for learners to complete the activity.2. Mark the worksheet using the answer key below, then verify that the learner has made the appropriate entries to the calendar on the worksheet.
Answer Key:	Yes (add a calendar entry) Yes (add a calendar entry) Yes (add a calendar entry) Yes (add a calendar entry)

Task 7:	Verifying an Invoice
Learning Outcome:	Have learners complete Task 7 in their workbook. The purpose is to help learners understand tables, charts and graphs in preparation for employment scenarios.
OALCF:	This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents, C1: Manage money and C4: Manage data at Level 1.
Duration:	10-15 minutes
Steps:	<ol style="list-style-type: none">1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.2. Allow 10-15 minutes for learners to complete the activity.3. Mark the worksheet using the answer key below.
Answer Key:	1. No 2. Learners should have: Changed 5 calculators to 4 Crossed out the LCD monitor that was not received

Test Your Knowledge Answers

Tables, Charts and Graphs - Band Office Administrative Assistant (Pg 24)

1. D
2. D
3. E
4. B
5. A
6. B
7. E
8. D

Workbook 6: Measurement Distance - Carpenter

OALCF Competencies & Task Groups															
	Competencies	Find and Use Information			Communicate Ideas and Information				Understand and Use Numbers				Use Digital Technology	Manage Learning	Engage with Others
Task #	Activity Name	Read continuous text	Interpret documents	Extract info from films, broadcasts & presentations	Interact with others	Write continuous text	Complete and create documents	Express oneself creatively	Manage money	Manage time	Use measures	Manage data			
	Task Group #	A1	A2	A3	B1	B2	B3	B4	C1	C2	C3	C4	D	E	F
1	Metric and Imperial Measurement		A2.1				B3.1				C3.1				
2	Converting Metric to Imperial		A2.1				B3.1				C3.1				
3	Converting Imperial to Metric		A2.1				B3.1				C3.1				
4	Recognizing Carpentry Tools		A2.1								C3.1				
5	Using a Measuring Tape		A2.1								C3.1				
6	Calculating Area – Square/Rectangle		A2.1								C3.1	C4.1			
7	Calculating Area – Triangle		A2.1								C3.1	C4.1			
8	Calculating Volume		A2.1								C3.1	C4.1			

OALCF Goal Path	Employment	Apprenticeship	Secondary School Credit	Postsecondary Credit	Independence
	X	X			

Task 1: Metric and Imperial Measurement

Learning Outcome: Have learners complete Task 1 in their workbook. The purpose is to help learners understand measurement in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information, B: Communicate Ideas and Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents, B3: Complete and create documents and C3: Use measures at Level 1.

Duration: 10-20 minutes

- Steps:**
1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
 2. Allow 10-20 minutes for learners to complete the activity.
 1. 4. Mark the worksheet using the answer key below.

Answer Key:

10 millimetres	1 centimetre
20 millimetres	2 centimetres
100 centimetres	1 metre
500 centimetres	5 metres
1,000 metres	1 kilometre
4,000 metres	4 kilometres
100 square millimetres	1 square centimetre
700 square millimetres	7 square centimetres
100 hectares	1 square kilometre
700 hectares	7 square kilometres

12 inches	1 foot
24 inches	2 feet
1 yard	3 feet
4 yards	12 feet
1 square yard	9 square feet
3 square yards	27 square feet
640 acres	1 square mile
1,280 acres	2 square miles

Task 2: Converting Metric to Imperial

Learning Outcome: Have learners complete Task 2 in their workbook. The purpose is to help learners understand measurement in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information, B: Communicate Ideas and Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents, B3: Complete and create documents and C3: Use measures at Level 1.

Duration: 10-20 minutes

- Steps:**
1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
 2. Allow 10-20 minutes for learners to complete the activity.
 3. Mark the worksheet using the answer key below.

Answer Key:

Metric	Divide by	Imperial
6 centimetres	2.54	2.36 inches
4 kilometres	1.6	2.5 miles
200 centimetres	30.48	6.56 feet
9 kilometres	1.6	5.63 miles
100 centimetres	91.44	1.09 yards
40 centimetres	30.48	1.31 feet
20 centimetres	2.54	7.87 inches
95 centimetres	91.44	1.04 yards
2 kilometres	1.6	1.25 miles
42 centimetres	2.54	16.54 inches

Task 3: Converting Imperial to Metric

Learning Outcome: Have learners complete Task 3 in their workbook. The purpose is to help learners understand measurement in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information, B: Communicate Ideas and Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents, B3: Complete and create documents and C3: Use measures at Level 1.

Duration: 10-20 minutes

- Steps:**
1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
 2. Allow 10-20 minutes for learners to complete the activity.
 3. Mark the worksheet using the answer key below.

Answer Key:

Imperial	Multiply by	Metric
5 inches	2.54	12.7 centimetres
7 miles	1.6	11.2 kilometres
2 feet	30.48	60.96 centimetres
4 miles	1.6	6.4 kilometres
9 inches	2.54	22.86 centimetres
8 yards	91.44	731.52 centimetres
7 inches	2.54	17.78 centimetres
2 miles	1.6	3.2 kilometres
10 feet	30.48	304.80 centimetres
12 miles	1.6	19.2 kilometres

Task 4: Recognizing Carpentry Tools

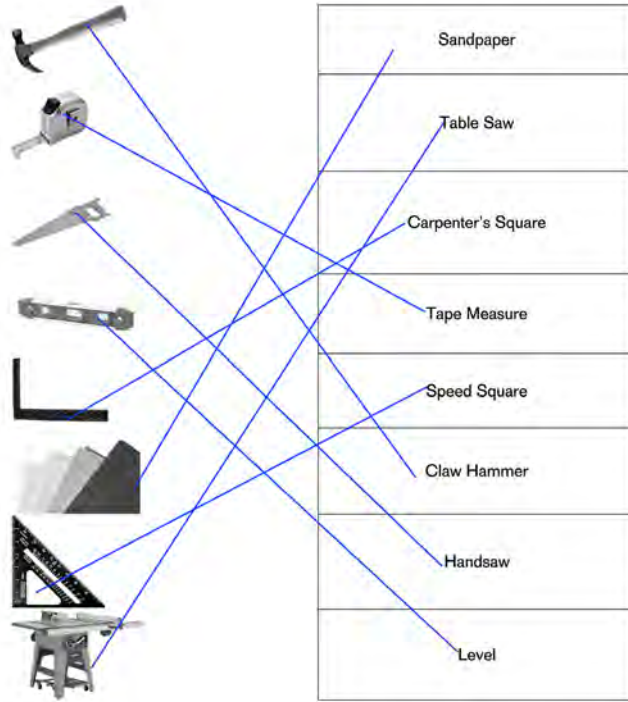
Learning Outcome: Have learners complete Task 4 in their workbook. The purpose is to help learners understand measurement in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents and C3: Use measures at Level 1.

Duration: 10 minutes

- Steps:**
1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
 2. Allow 10 minutes for learners to complete the activity.
 3. Mark the worksheet using the answer key below.

Answer Key:



Task 5: Using a Measuring Tape

Learning Outcome: Have learners complete Task 5 in their workbook. The purpose is to help learners understand measurement in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents and C3: Use measures at Level 1.

Duration: 10 minutes

- Steps:**
1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
 2. Allow 10 minutes for learners to complete the activity.
 3. Mark the worksheet using the answer key below.

- Answer Key:**
1. 2 inches
 2. 2 5/8 inches
 3. 1 1/8 inches
 4. 3 7/8
 5. 2 5/8 inches

Task 6: Calculating Area – Square/Rectangle

Learning Outcome: Have learners complete Task 6 in their workbook. The purpose is to help learners understand measurement in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents, C3: Use measures and C4:

	Manage data at Level 1.
Duration:	10-20 minutes
Steps:	<ol style="list-style-type: none"> 1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. 2. Allow 10-20 minutes for learners to complete the activity. 3. 4. Mark the worksheet using the answer key below.
Answer Key:	<ol style="list-style-type: none"> 1. 15 ft² 2. 50 in² 3. 24 ft²

Task 7:	Calculating Area – Triangle
Learning Outcome:	Have learners complete Task 7 in their workbook. The purpose is to help learners understand measurement in preparation for employment.
OALCF:	This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents, C3: Use measures and C4: Manage data at Level 1.
Duration:	10-20 minutes
Steps:	<ol style="list-style-type: none"> 1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. 2. Allow 10-20 minutes for learners to complete the activity. 3. Mark the worksheet using the answer key below.
Answer Key:	<ol style="list-style-type: none"> 1. Area= $\frac{1}{2} \times 22 \times 4$ $= \frac{1}{2} \times 88$ $= 44 \text{ cm}^2$ 2. Area= $\frac{1}{2} \times 8 \times 4$ $= \frac{1}{2} \times 32$ $= 16 \text{ cm}^2$ 3. Area= $\frac{1}{2} \times 15 \times 7$ $= \frac{1}{2} \times 105$ $= 52.5 \text{ cm}^2$ 4. Area= $\frac{1}{2} \times 20 \times 20$ $= \frac{1}{2} \times 400$ $= 200 \text{ cm}^2$

Task 8:	Calculating Volume
Learning Outcome:	Have learners complete Task 8 in their workbook. The purpose is to help learners understand measurement in preparation for employment.
OALCF:	This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents, C3: Use measures and C4: Manage data at Level 1.
Duration:	10-15 minutes
Steps:	<ol style="list-style-type: none"> 1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.

Answer Key:	2.	Allow 10-15 minutes for learners to complete the activity.
	3.	Mark the worksheet using the answer key below.
	1.	64 ft ³
	2.	81 ft ³
	3.	80 ft ³

Test Your Knowledge Answers

Measurement Distance - Carpenter (Pg 23)

1. B
2. B
3. D
4. A
5. E
6. C
7. C
8. E

Workbook 7: Fractions - Plumber

OALCF Competencies & Task Groups															
	Competencies	Find and Use Information			Communicate Ideas and Information				Understand and Use Numbers				Use Digital Technology	Manage Learning	Engage with Others
Task #	Activity Name	Read continuous text	Interpret documents	Extract info from films, broadcasts & presentations	Interact with others	Write continuous text	Complete and create documents	Express oneself creatively	Manage money	Manage time	Use measures	Manage data			
	Task Group #	A1	A2	A3	B1	B2	B3	B4	C1	C2	C3	C4	D	E	F
1	Recognizing Fractions		A2.1									C4.1			
2	Simplifying Fractions						B3.1				C3.1	C4.1			
3	Common Measurements in Plumbing		A2.1								C3.1				
4	Adding Fractions						B3.1				C3.1	C4.1			
5	Subtracting Fractions						B3.1				C3.1	C4.1			
6	Converting Fractions to Decimals						B3.1				C3.1	C4.1			
7	Converting Metric to Imperial Measurements		A2.1				B3.1				C3.1	C4.1			
8	Converting Imperial to Metric Measurements		A2.1				B3.1				C3.1	C4.1			

OALCF Goal Path	Employment	Apprenticeship	Secondary School Credit	Postsecondary Credit	Independence
	x	x			

Task 1: Recognizing Fractions

Learning Outcome: Have learners complete Task 1 in their workbook. The purpose is to help learners understand measurement in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents and C4: Manage data at Level 1.

Duration: 5-10 minutes

Steps:

1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
2. Allow 5-10 minutes for learners to complete the activity.
3. Mark the worksheet using the answer key below.

Answer Key:

1. $\frac{1}{3}$	4. $\frac{1}{2}$
2. $\frac{1}{5}$	5. $\frac{1}{6}$
3. $\frac{1}{8}$	

Task 2: Simplifying Fractions

Learning Outcome: Have learners complete Task 2 in their workbook. The purpose is to help learners understand decimals and fractions in preparation for employment.

OALCF: This activity addresses Competencies B: Communicate Ideas and Information and C: Understand and Use Numbers. The applicable Task Groups are B3: Complete and create documents, C3: Use measures and C4: Manage data at Level 1.

Duration: 10-20 minutes

Steps:

1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
2. Allow 10-20 minutes for learners to complete the activity.
3. Mark the worksheet using the answer key below.

Answer Key:

Fraction	Number to divide by	Simplified fraction
$\frac{3}{9}$	3	$\frac{1}{3}$
$\frac{8}{12}$	4	$\frac{2}{3}$
$\frac{6}{18}$	3	$\frac{2}{9}$
$\frac{10}{30}$	10	$\frac{1}{3}$
$\frac{5}{20}$	5	$\frac{1}{4}$
$\frac{4}{22}$	2	$\frac{2}{11}$
$\frac{12}{32}$	4	$\frac{3}{8}$
$\frac{20}{50}$	10	$\frac{2}{5}$
$\frac{9}{15}$	3	$\frac{3}{5}$
$\frac{3}{6}$	3	$\frac{1}{2}$
$\frac{15}{40}$	5	$\frac{3}{8}$

Task 3: Common Measurements in Plumbing

Learning Outcome: Have learners complete Task 3 in their workbook. The purpose is to help learners understand decimals and fractions in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents and C3: Use measures at Level 1.

Duration:	10-15 minutes	
Steps:	<ol style="list-style-type: none"> Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. Allow 10-15 minutes for learners to complete the activity. Mark the worksheet using the answer key below. 	
Answer Key:	<ol style="list-style-type: none"> Metre 3.28 Inches 2.54 Foot 	<ol style="list-style-type: none"> In or " Six feet, three inches 0.30 In or " 0.30

Task 4: Adding Fractions

Learning Outcome: Have learners complete Task 4 in their workbook. The purpose is to help learners understand decimals and fractions in preparation for employment.

OALCF: This activity addresses Competencies B: Communicate Ideas and Information and C: Understand and Use Numbers. The applicable Task Groups are B3: Complete and create documents, C3: Use measures and C4: Manage data at Level 1.

Duration: 10-15 minutes

- Steps:**
- Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
 - Allow 10-15 minutes for learners to complete the activity.
 - Mark the worksheet using the answer key below.

Answer Key:

Add these fractions	Answer	Simplified fraction (if necessary)
$\frac{1}{3} + \frac{1}{3}$	$\frac{2}{3}$	
$\frac{2}{6} + \frac{2}{6}$	$\frac{4}{6}$	$\frac{2}{3}$
$\frac{3}{5} + \frac{1}{5}$	$\frac{4}{5}$	
$\frac{4}{7} + \frac{2}{7}$	$\frac{6}{7}$	
$\frac{5}{9} + \frac{1}{9}$	$\frac{6}{9}$	$\frac{2}{3}$
$\frac{11}{15} + \frac{3}{15}$	$\frac{14}{15}$	
$\frac{9}{16} + \frac{3}{16}$	$\frac{12}{16}$	$\frac{3}{4}$
$\frac{2}{5} + \frac{1}{5}$	$\frac{3}{5}$	
$\frac{11}{20} + \frac{4}{20}$	$\frac{15}{20}$	$\frac{3}{4}$
$\frac{13}{17} + \frac{2}{17}$	$\frac{15}{17}$	
$\frac{12}{19} + \frac{3}{19}$	$\frac{15}{19}$	
$\frac{5}{8} + \frac{2}{8}$	$\frac{7}{8}$	

Task 5: Subtracting Fractions

Learning Outcome: Have learners complete Task 5 in their workbook. The purpose is to help learners understand decimals and fractions in preparation for employment.

OALCF: This activity addresses Competencies B: Communicate Ideas and Information and C: Understand and Use Numbers. The applicable Task Groups are B3: Complete and create documents, C3: Use measures and C4: Manage data at Level 1.

Duration: 10-15 minutes

- Steps:**
- Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
 - Allow 10-15 minutes for learners to complete the activity.
 4. Mark the worksheet using the answer key below.

Answer Key:

Subtract these fractions	Answer	Simplified fraction (if necessary)
$2/3 - 1/3$	$1/3$	
$4/9 - 1/9$	$3/9$	$1/3$
$12/15 - 9/15$	$3/15$	$1/5$
$9/10 - 2/10$	$7/10$	
$4/5 - 2/5$	$3/5$	
$15/18 - 11/18$	$4/18$	$2/9$
$7/12 - 6/12$	$1/12$	
$5/8 - 2/8$	$3/8$	
$14/17 - 4/17$	$10/17$	
$3/4 - 1/4$	$2/4$	$1/2$
$6/7 - 3/7$	$3/7$	
$3/5 - 2/5$	$1/5$	

Task 6: Converting Fractions to Decimals

Learning Outcome: Have learners complete Task 6 in their workbook. The purpose is to help learners understand decimals and fractions in preparation for employment.

OALCF: This activity addresses Competencies B: Communicate Ideas and Information and C: Understand and Use Numbers. The applicable Task Groups are B3: Complete and create documents, C3: Use measures and C4: Manage data at Level 1.

Duration: 10-20 minutes

- Steps:**
1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
 2. Allow 10-20 minutes for learners to complete the activity.
 3. 4. Mark the worksheet using the answer key below.

Answer Key:

Fraction	Decimal
$2/4$	0.5
$3/5$	0.6
$9/10$	0.9
$1/3$	0.33
$4/7$	0.57
$2/9$	0.22
$7/8$.875 (answer may be .87 or .88 if they round up)
$12/15$	0.8
$2/7$.285 (answer may be .28 or .29 if they round up)
$1/8$.125 (answer may be .12 or .13 if they round up)
$11/12$.916 (answer may be .91 or .92 if they round up)
$9/14$	0.64
$8/15$	0.53

Task 7: Converting Metric to Imperial Measurements

Learning Outcome: Have learners complete Task 7 in their workbook. The purpose is to help learners understand decimals and fractions in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information, B: Communicate Ideas and Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents, B3: Complete and create documents, C3: Use measures and C4: Manage data at Level 1.

Duration: 10-20 minutes

- Steps:**
1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.

2. Allow 10-20 minutes for learners to complete the activity.
3. Mark the worksheet using the answer key below.

Answer Key:

Metric	Divide by	Imperial
8 centimeters	2.54	3.15 inches
3 kilometers	1.6	1.88 miles
50 centimeters	30.48	1.64 feet
11 kilometers	1.6	6.88 miles
500 centimeters	91.44	5.47 yards
80 centimeters	30.48	2.62 feet
25 centimeters	2.54	9.84 inches
120 centimeters	91.44	1.31 yards
8 kilometers	1.6	5 miles
50 centimeters	2.54	19.69 inches

Task 8: Converting Imperial to Metric Measurements

Learning Outcome: Have learners complete Task 8 in their workbook. The purpose is to help learners understand decimals and fractions in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information, B: Communicate Ideas and Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents, B3: Complete and create documents, C3: Use measures and C4: Manage data at Level 1.

Duration: 10-20 minutes

- Steps:**
1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
 2. Allow 10-20 minutes for learners to complete the activity.
 3. 4. Mark the worksheet using the answer key below.

Answer Key:

Imperial	Multiply by	Metric
12 inches	2.54	30.48 centimeters
15 miles	1.6	24 kilometers
6 feet	30.48	182.88 centimeters
7 miles	1.6	11.2 kilometers
23 inches	2.54	58.42 centimeters
2 yards	91.44	182.88 centimeters
13 inches	2.54	33.02 centimeters
8 miles	1.6	12.8 kilometers
17 feet	30.48	518.16 centimeters
21 miles	1.6	33.6 kilometers

Test Your Knowledge Answers

Fractions - Plumber (Pg 24)

- | | |
|------|------|
| 1. D | 6. D |
| 2. C | 7. B |
| 3. E | 8. E |
| 4. D | |
| 5. A | |

Workbook 8: Area and Angles - Welder

OALCF Competencies & Task Groups															
	Competencies	Find and Use Information			Communicate Ideas and Information				Understand and Use Numbers				Use Digital Technology	Manage Learning	Engage with Others
Task #	Activity Name	Read continuous text	Interpret documents	Extract info from films, broadcasts & presentations	Interact with others	Write continuous text	Complete and create documents	Express oneself creatively	Manage money	Manage time	Use measures	Manage data			
	Task Group #	A1	A2	A3	B1	B2	B3	B4	C1	C2	C3	C4	D	E	F
1	Calculating the Area of a Simple Square		A2.1								C3.1	C4.1			
2	Calculating the Area of Shapes		A2.1								C3.1	C4.1			
3	Identifying Types of Angles		A2.1								C3.1				
4	Identifying the Parts of an Angle		A2.1								C3.1				
5	Right Angles – the Hypotenuse		A2.1								C3.1				
6	Rights Angles – Pythagorean Theorem		A2.1								C3.1	C4.1			
7	Measuring Circles		A2.1								C3.1	C4.1			
8	Calculating Circumference		A2.1								C3.1	C4.1			

OALCF Goal Path	Employment	Apprenticeship	Secondary School Credit	Postsecondary Credit	Independence
	x	x			

Task 1: Calculating the Area of a Simple Square

Learning Outcome: Have learners complete Task 1 in their workbook. The purpose is to help learners understand area and angles in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents, C3: Use measures and C4: Manage data at Level 1.

Duration: 10-20 minutes

Steps:

1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
2. Allow 10-20 minutes for learners to complete the activity.
3. Mark the worksheet using the answer key below.

Answer Key:

1. 25 cm ²	6. 196 ft ²
2. 4 ft ²	7. 729 cm ²
3. 121 in ²	8. 169 in ²
4. 225 cm ²	9. 81 cm ²
5. 484 m ²	10. 1024 cm ²

Task 2: Calculating the Area of a Shapes

Learning Outcome: Have learners complete Task 2 in their workbook. The purpose is to help learners understand area and angles in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents, C3: Use measures and C4: Manage data at Level 1.

Duration: 10 minutes

Steps:

1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
2. Allow 10 minutes for learners to complete the activity.
3. Mark the worksheet using the answer key below.

Answer Key:

1. $A = bxh$	6. $A = wxl$
2. $A = wxl$	7. $A = r^2 \times \pi$
3. $A = r^2 \times \pi$	8. $A = bxh$
4. $A = wxl$	9. $A = bxh/2$
5. $A = bxh/2$	10. $A = wxl$

Task 3: Types of Angles

Learning Outcome: Have learners complete Task 3 in their workbook. The purpose is to help learners understand area and angles in preparation for employment.


OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents and C3: Use measures at Level 1.

Duration: 10 minutes

Steps:

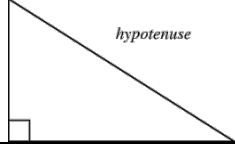
1. Instruct learners to read the applicable section in their workbook and complete the worksheet

Answer Key:	as per its instructions.	
	2. Allow 10 minutes for learners to complete the activity.	
	3. Mark the worksheet using the answer key below.	
	1. Right angle	6. Reflex angle
	2. Straight angle	7. Right angle
	3. Obtuse angle	8. Reflex angle
	4. Acute angle	9. Acute angle
	5. Right angle	10. Straight angle

Task 4:	Parts of an Angle
Learning Outcome:	Have learners complete Task 4 in their workbook. The purpose is to help learners understand area and angles in preparation for employment.
OALCF:	This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents and C3: Use measures at Level 1.
Duration:	10 minutes
Steps:	<ol style="list-style-type: none"> 1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. 2. Allow 10 minutes for learners to complete the activity. 3. Mark the worksheet using the answer key below.
Answer Key:	Compare learner labels with this properly labeled angle:
	 <p>The diagram shows an acute angle formed by two rays meeting at a common endpoint. The common endpoint is labeled 'vertex' in blue. The two rays are labeled 'arm' in red. A green arc between the two arms is labeled 'angle' in green.</p>

Task 5:	Right Angles – the Hypotenuse
Learning Outcome:	Have learners complete Task 5 in their workbook. The purpose is to help learners understand area and angles in preparation for employment.
OALCF:	This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents and C3: Use measures at Level 1.
Duration:	5-10 minutes
Steps:	<ol style="list-style-type: none"> 1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. 2. Allow 5-10 minutes for learners to complete the activity. 3. Mark the worksheet using the answer key below.

Answer Key: Check that learner has circled the right angle vertex (hypotenuse) in each image, as shown below:



Task 6: Right Angles – Pythagorean Theorem

Learning Outcome: Have learners complete Task 6 in their workbook. The purpose is to help learners understand area and angles in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents, C3: Use measures and C4: Manage data at Level 1.

Duration: 10-20 minutes

1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.

Steps: 2. Allow 10-20 minutes for learners to complete the activity.

3. Mark the worksheet using the answer key below.

Answer Key:

1. $C^2 = 2^2 + 4^2$	4. $C^2 = 9^2 + 17^2$
2. $C^2 = 7^2 + 4^2$	5. $C^2 = 20^2 + 11^2$
3. $C^2 = 5^2 + 9^2$	

Task 7: Measuring Circles

Learning Outcome: Have learners complete Task 7 in their workbook. The purpose is to help learners understand area and angles in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents, C3: Use measures and C4: Manage data at Level 1.

Duration: 10-20 minutes

Steps: 1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.

2. Allow 10-20 minutes for learners to complete the activity.

3. Mark the worksheet using the answer key below.

Answer Key:

1. D = 10, R = 5	4. D = 6, R = 3
2. D = 8, R = 4	5. D = 14, R = 7
3. D = 12, R = 6	

Task 8: Calculating Circumference

Learning Outcome: Have learners complete Task 8 in their workbook. The purpose is to help learners understand area and angles in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents, C3: Use measures and C4: Manage data at Level 1.

Duration:	10-20 minutes	
Steps:	<ol style="list-style-type: none"> Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. Allow 10-20 minutes for learners to complete the activity. Mark the worksheet using the answer key below. 	
Answer Key:	<ol style="list-style-type: none"> $C = 2 \pi r$ $C = 2 \times 3.14 \times 5$ $C = 2 \pi r$ $C = 2 \times 3.14 \times 7.5$ $C = 2 \pi r$ $C = 2 \times 3.14 \times 2$ 	<ol style="list-style-type: none"> $C = 2 \pi r$ $C = 2 \times 3.14 \times 6$ $C = 2 \pi r$ $C = 2 \times 3.14 \times 7$ $C = 2 \pi r$ $C = 2 \times 3.14 \times 15$

Test Your Knowledge Answers

Area and Angles - Welder (Pg 25)

- B
- D
- A
- C
- E
- D
- C
- A

Workbook 9: Averages - Hunting and Fishing Guide

OALCF Competencies & Task Groups															
	Competencies	Find and Use Information			Communicate Ideas and Information				Understand and Use Numbers				Use Digital Technology	Manage Learning	Engage with Others
Task #	Activity Name	Read continuous text	Interpret documents	Extract info from films, broadcasts & presentations	Interact with others	Write continuous text	Complete and create documents	Express oneself creatively	Manage money	Manage time	Use measures	Manage data			
	Task Group #	A1	A2	A3	B1	B2	B3	B4	C1	C2	C3	C4	D	E	F
1	Understanding Averages	A1.1									C3.1	C4.1			
2	Average Amount of Supplies Required		A2.1								C3.1	C4.1			
3	Average Pelt Size		A2.1								C3.1	C4.1			
4	Average Income		A2.1						C1.1	C2.1		C4.1			
5	Average Distance		A2.1								C3.1	C4.1			
6	Mode	A1.1									C3.1	C4.1			
7	Median	A1.1									C3.1	C4.1			

Task 1: Understanding Averages

Learning Outcome: Have learners complete Task 1 in their workbook. The purpose is to help learners understand averages in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A1: Read continuous text, C3: Use measures and C4: Manage data at Level 1.

Duration: 10-20 minutes

Steps:

- Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
- Allow 10-20 minutes for learners to complete the activity.
- Mark the worksheet using the answer key below.

Answer Key:

1.	3	5.	8	8.	6
2.	7	6.	5	9.	6
3.	9	7.	8	10.	7
4.	12				

Task 2: Average Amount of Supplies Required

Learning Outcome: Have learners complete Task 2 in their workbook. The purpose is to help learners understand averages in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents, C3: Use measures and C4: Manage data at Level 1.

Duration: 10-15 minutes

Steps:

1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
2. Allow 10-15 minutes for learners to complete the activity.
3. Mark the worksheet using the answer key below.

Answer Key:

1. September – 68
2. October – 70
3. November – 63
4. December – 69

Task 3: Average Pelt Size

Learning Outcome: Have learners complete Task 3 in their workbook. The purpose is to help learners understand averages in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents, C3: Use measures and C4: Manage data at Level 1.

Duration: 10-15 minutes

Steps:

1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
2. Allow 10-15 minutes for learners to complete the activity.
3. Mark the worksheet using the answer key below.

Answer Key:

1. 32, 25, 31, 19
2. 17
3. Week 3
4. 15, 17, 9, 23
5. Southern region

Task 4: Average Income

Learning Outcome: Have learners complete Task 4 in their workbook. The purpose is to help learners understand averages in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents, C1: Manage money, C2: Manage time and C4: Manage data at Level 1.

Duration: 10-15 minutes

Steps:

1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
2. Allow 10-15 minutes for learners to complete the activity.

	3. Mark the worksheet using the answer key below.	
Answer Key:	1. \$6750.00	4. \$2690.00
	2. \$2500.00	5. \$4010.00
	3. \$2340.00	

Task 5:	Average Distance	
Learning Outcome:	Have learners complete Task 5 in their workbook. The purpose is to help learners understand averages in preparation for employment.	
OALCF:	This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents, C3: Use measures and C4: Manage data at Level 1.	
Materials:	Task 5 worksheet Pen or pencil Scrap paper for calculations, if required	
Duration:	15-20 minutes	
Steps:	<ol style="list-style-type: none"> 1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. 2. Allow 15-20 minutes for learners to complete the activity. 3. Mark the worksheet using the answer key below. 	
Answer Key:	1. 37	6. 518
	2. 259	7. 80
	3. 73	8. 560
	4. 511	9. 86
	5. 74	10. 1102

Task 6:	Mode	
Learning Outcome:	Have learners complete Task 6 in their workbook. The purpose is to help learners understand averages in preparation for employment.	
OALCF:	This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A1: Read continuous text, C3: Use measures and C4: Manage data at Level 1.	
Duration:	15-20 minutes	
Steps:	<ol style="list-style-type: none"> 1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. 2. Allow 15-20 minutes for learners to complete the activity. 3. Mark the worksheet using the answer key below. 	
Answer Key:	1. 36	6. 47
	2. 50	7. 67
	3. 40	8. 25
	4. 74	9. 10
	5. 92	10. 45

Task 7:	Median		
Learning Outcome:	Have learners complete Task 7 in their workbook. The purpose is to help learners understand averages in preparation for employment.		
OALCF:	This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A1: Read continuous text, C3: Use measures and C4: Manage data at Level 1.		
Duration:	15-20 minutes		
Steps:	<ol style="list-style-type: none"> 2. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. 3. Allow 15-20 minutes for learners to complete the activity. 4. Mark the worksheet using the answer key below. 5. Allow an opportunity for learners to ask questions or discuss the activity; record and file the results for the learner. 		
Answer Key:	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; border-right: 1px solid black; padding-right: 10px;"> <ol style="list-style-type: none"> 1. 35 2. 64 3. 6 4. 37 5. 51 </td> <td style="width: 50%; padding-left: 10px;"> <ol style="list-style-type: none"> 6. 96 7. 300 8. 56 9. 350 10. 52 </td> </tr> </table>	<ol style="list-style-type: none"> 1. 35 2. 64 3. 6 4. 37 5. 51 	<ol style="list-style-type: none"> 6. 96 7. 300 8. 56 9. 350 10. 52
<ol style="list-style-type: none"> 1. 35 2. 64 3. 6 4. 37 5. 51 	<ol style="list-style-type: none"> 6. 96 7. 300 8. 56 9. 350 10. 52 		

Test Your Knowledge Answers

Averages – Hunting and Fishing Guide (Pg 24)

1. A
2. D
3. B
4. C
5. B
6. D
7. E
8. B

Workbook 10: Budgeting – Personal Support Worker

OALCF Competencies & Task Groups															
Competencies		Find and Use Information			Communicate Ideas and Information				Understand and Use Numbers				Use Digital Technology	Manage Learning	Engage with Others
Task #	Activity Name	Read continuous text	Interpret documents	Extract info from films, broadcasts & presentations	Interact with others	Write continuous text	Complete and create documents	Express oneself creatively	Manage money	Manage time	Use measures	Manage data			
Task Group #		A1	A2	A3	B1	B2	B3	B4	C1	C2	C3	C4	D	E	F
1	Budgeting for Groceries	A1.1							C1.1			C4.1			
2	Budgeting for Medication	A1.1							C1.1			C4.1			
3	Reading Household Bills		A2.1						C1.1			C4.1			
4	Calculating Expenses		A2.1						C1.1			C4.1			
5	Budgeting Time for Client Visits		A2.1							C2.1					
6	Scheduling Client Activities	A1.1					B3.1			C2.1					
7	Keeping Track of Time		A2.1							C2.1					

OALCF Goal Path	Employment	Apprenticeship	Secondary School Credit	Postsecondary Credit	Independence
	x	x			

Task 1: Budgeting for Groceries

Learning Outcome: Have learners complete Task 1 in their workbook. The purpose is to help learners understand budgeting money in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A1: Read continuous text, C1: Manage money and C4: Manage data at Level 1.

Duration: 15-20 minutes

Steps:

1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
2. Allow 15-20 minutes for learners to complete the activity.
3. Mark the worksheet using the answer key below.

Answer Key:

1. \$34.00 – Yes
2. \$37.00 – No
3. \$35.00 – Yes
4. \$33.00 – Yes

Task 2: Budgeting for Medication

Learning Outcome: Have learners complete Task 2 in their workbook. The purpose is to help learners understand budgeting in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A1: Read continuous text, C1: Manage money and C4: Manage data at Level 1.

Duration: 15-20 minutes

Steps:

1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
2. Allow 15-20 minutes for learners to complete the activity.
3. Mark the worksheet using the answer key below.

Answer Key:

Prescription Drug	Cost	Drug Plan Pays	Client Pays
Accupril for blood pressure	\$31	\$27	\$4
Claritin for allergies	\$17	\$12	\$5
DiaBeta for diabetes	\$57	\$40	\$17
Fosamax for osteoporosis	\$9	\$6	\$3
Isordil for angina	\$10	\$5	\$5
Remeron for depression	\$9	\$5	\$4
Sinemet for Parkinson's disease	\$12	\$10	\$2
Voltaren for inflammation	\$16	\$8	\$8
Xalatan for glaucoma	\$17	\$11	\$6
Zyloprim for gout	\$7	\$2	\$5

Task 3: Reading Household Bills

Learning Outcome: Have learners complete Task 3 in their workbook. The purpose is to help learners understand budgeting money in preparation for employment.

OALCF:	This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents, C1: Manage money and C4: Manage data at Level 1.
Duration:	10-15 minutes
Steps:	<ol style="list-style-type: none"> 1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. 2. Allow 10-15 minutes for learners to complete the activity. 3. Mark the worksheet using the answer key below.
Answer Key:	<ol style="list-style-type: none"> 1. <ol style="list-style-type: none"> a) December 6, 2013 b) December 24, 2013 c) 1-800-434-1235 d) \$188.90 e) \$150.00 2. <ol style="list-style-type: none"> a) March 19, 2009 b) \$14.67 c) *611 d) \$127.51 e) \$37.62

Task 4:	Calculating Expenses						
Learning Outcome:	Have learners complete Task 4 in their workbook. The purpose is to help learners understand budgeting money in preparation for employment.						
OALCF:	This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents, C1: Manage money and C4: Manage data at Level 1.						
Duration:	10-15 minutes						
Steps:	<ol style="list-style-type: none"> 1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. 2. Allow 10-15 minutes for learners to complete the activity. 3. Mark the worksheet using the answer key below. 						
Answer Key:	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">1. \$13.00</td> <td style="width: 50%;">4. \$14.00</td> </tr> <tr> <td>2. \$29.00</td> <td>5. \$22.00</td> </tr> <tr> <td>3. \$21.00</td> <td>6. \$23.00</td> </tr> </table>	1. \$13.00	4. \$14.00	2. \$29.00	5. \$22.00	3. \$21.00	6. \$23.00
1. \$13.00	4. \$14.00						
2. \$29.00	5. \$22.00						
3. \$21.00	6. \$23.00						

Task 5:	Budgeting Time for Client Visits
Learning Outcome:	Have learners complete Task 5 in their workbook. The purpose is to help learners understand budgeting time in preparation for employment.
OALCF:	This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents and C2: Manage time at Level 1.
Duration:	10-15 minutes
Steps:	<ol style="list-style-type: none"> 1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. 2. Allow 10-15 minutes for learners to complete the activity. 3. Mark the worksheet using the answer key below.

Answer Key:	No Yes 1 2 Friday No Tuesday Yes
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Task 6: Scheduling Client Activities

Learning Outcome: Have learners complete Task 6 in their workbook. The purpose is to help learners understand budgeting time in preparation for employment.

OALCF: This activity addresses Competencies A: Find and Use Information, B: Communicate Ideas and Information and C: Understand and Use Numbers. The applicable Task Groups are A1: Read continuous text, B3: Complete and create documents and C2: Manage time at Level 1.

Duration: 10-20 minutes

- Steps:**
1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions.
 2. Allow 10-20 minutes for learners to complete the activity.
 3. Mark the worksheet using the answer key below.

Answer Key:

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		1 10:00 – 11:00 PSW visit 2:00 – 4:00 Bridge	2 9:00 – 10:00 Physiotherapy	3 10:00 – 11:00 PSW visit	4	5 6:00 – 7:00 Community centre dinner
6 4:00 – 5:00 Library	7 9:00 – 10:00 Physiotherapy	8 10:00 – 11:00 PSW visit 2:00 – 4:00 Bridge	9 9:00 – 10:00 Physiotherapy	10 10:00 – 11:00 PSW visit	11	12 6:00 – 7:00 Community centre dinner
13	14 9:00 – 10:00 Physiotherapy	15 10:00 – 11:00 PSW visit 2:00 – 4:00 Bridge	16 9:00 – 10:00 Physiotherapy	17 10:00 – 11:00 PSW visit	18	19 6:00 – 7:00 Community centre dinner
20 4:00 – 5:00 Library	21 9:00 – 10:00 Physiotherapy	22 10:00 – 11:00 PSW visit 2:00 – 4:00 Bridge	23 9:00 – 10:00 Physiotherapy 3:00 – 4:00 Meet with pharmacist	24 10:00 – 11:00 PSW visit	25	26 6:00 – 7:00 Community centre dinner
27	28 9:00 – 10:00 Physiotherapy	29 10:00 – 11:00 PSW visit 2:00 – 4:00 Bridge	30 9:00 – 10:00 Physiotherapy	31 10:00 – 11:00 PSW visit		

Task 7:	Keeping Track of Time
Learning Outcome:	Have learners complete Task 7 in their workbook. The purpose is to help learners understand budgeting time in preparation for employment.
OALCF:	This activity addresses Competencies A: Find and Use Information and C: Understand and Use Numbers. The applicable Task Groups are A2: Interpret documents and C2: Manage time at Level 1.
Duration:	10-20 minutes
Steps:	<ol style="list-style-type: none"> 1. Instruct learners to read the applicable section in their workbook and complete the worksheet as per its instructions. 2. Allow 10-20 minutes for learners to complete the activity. 3. Mark the worksheet using the answer key below.
Answer Key:	<ol style="list-style-type: none"> 1. 90 minutes 2. 120 minutes 3. 105 minutes 4. 105 minutes 5. 135 minutes 6. 150 minutes 7. 120 minutes 8. 135 minutes 9. 115 minutes 10. 120 minutes

Test Your Knowledge Answers

Budgeting – Personal Support Worker (Pg 27)

1. C
2. A
3. C
4. D
5. E
6. C
7. E
8. B