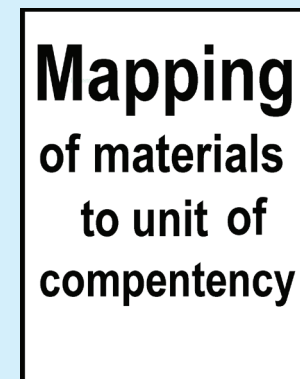
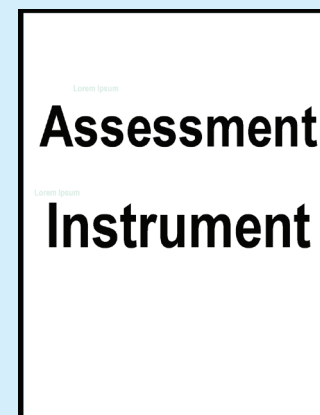
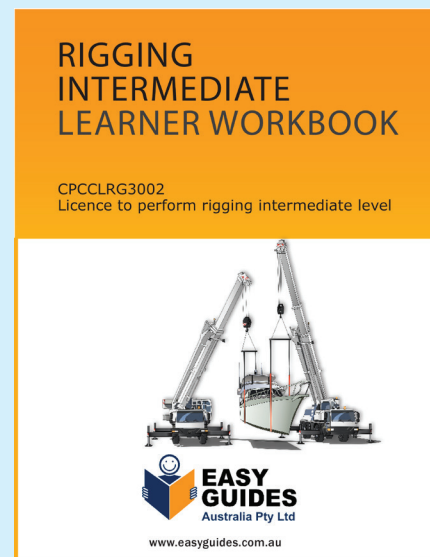


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LEARNER GUIDE

Front End Loader- Wheeled

TICKET

Training support material for:

RIIMP0321F

**Conduct civil construction wheeled
front end loader operations**

Produced by:



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Introduction to Wheeled Front End Loader

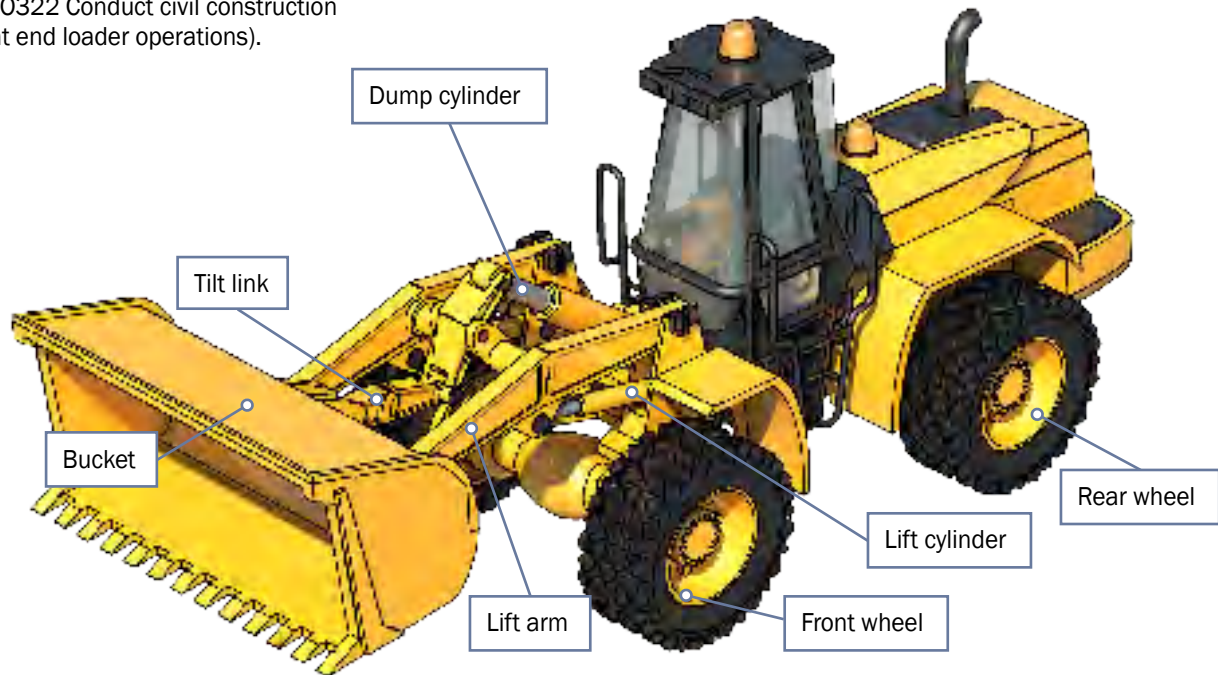


An example of a wheeled front end loader

A wheeled front end loader is a type of machine, that has a front-mounted square wide bucket connected to the end of two booms (arms) to scoop up loose material such as dirt, sand or gravel and move it from one place to another without pushing the material across the ground.

A wheeled front end loader is commonly used to move material from ground level and deposit it into an awaiting dump truck, stockpile or into an open trench excavation.

Front end loaders can also come in tracked models (refer RIIMPO322 Conduct civil construction tracked front end loader operations).



Plan and prepare for work

Chapter 1



QUESTION 15

How can you find out the maximum safe working load (SWL) of the front end loader?

Check the load chart



Check the data plate



Read the markings on the loader itself



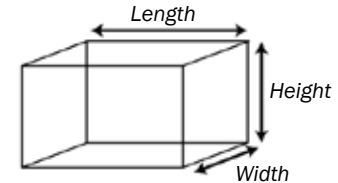
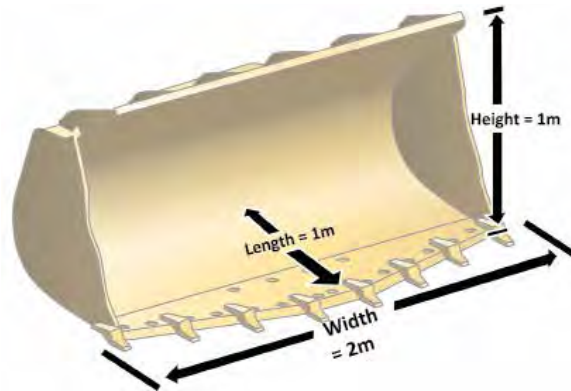
Read the operator's manual.



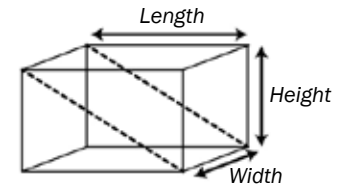
QUESTION 16

How do you find out the cubic capacity of the bucket?

$$\text{Capacity} = \frac{L \times W \times H}{2}$$



Cubic capacity of cube = $L \times W \times H$



Cubic capacity of bucket = $L \times W \times H \div 2$
 Cubic capacity is $\div 2$ because of the shape of the bucket
 (a triangular prism, or half of a rectangle)

Operate/use equipment

Chapter 4



QUESTION 72

How do you safely fill out a stockpile?

1. Start by filling the area closest to the back of the stockpile area.



2. Try not to fill too close to the edge. The edge of the stockpile could give way.



3. Keep filling out the stockpile one row at a time.

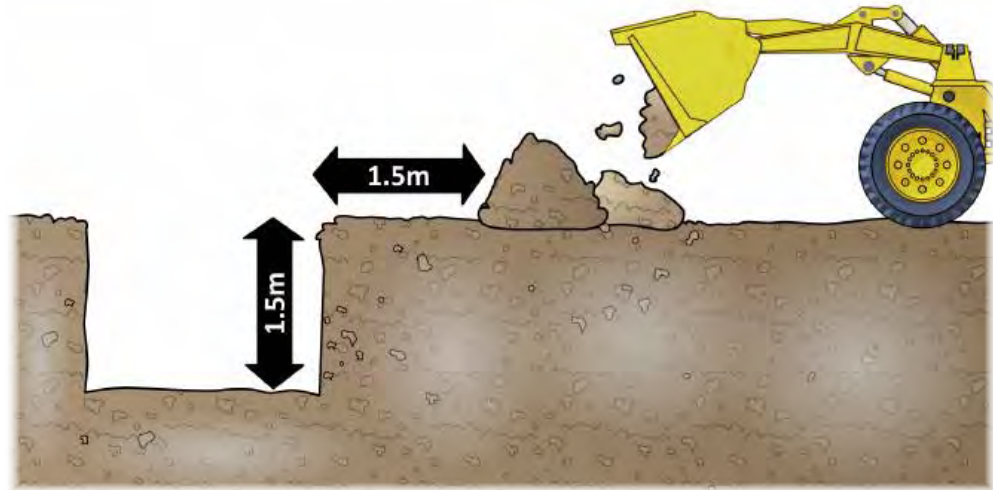


QUESTION 73

When dumping materials near an excavation, how far away from the excavation must you dump the load?

As a general rule of thumb, you should dump the load the same distance away as the depth of the hole.

For example:



WHEELED FRONT END LOADER

Learner Workbook



Student Copy

RIIMPO321F –

Conduct civil construction wheeled front end loader operations



Learner Name: _____

Student Number: _____ Date: _____

This resource was developed by:



Version 1.1 – January 2023



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Knowledge Assessment



Question 1

What are the National Work Health (WHS) and Occupational Health and Safety (OHS) Acts about?



Question 2

Under WHS/OHS laws, what are your responsibilities while working?



Question 3

What do codes of practice explain?



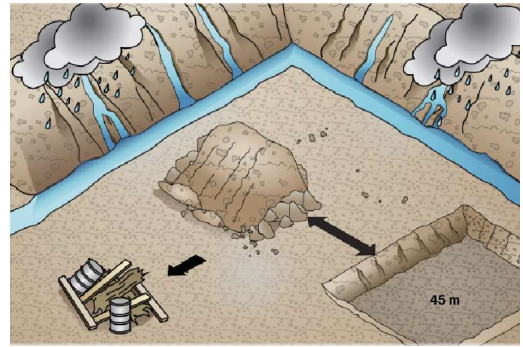
Question 4

What do Australian Standards explain?



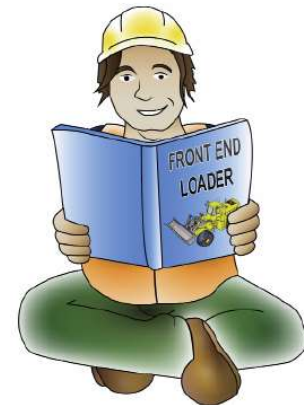
Question 13

How do you choose and set up a location for a stockpile?



Question 14

How can you find out the specifications and limits of the machine you will use?



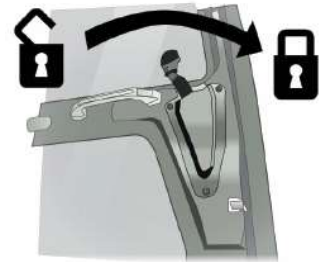
Question 15

How can you find out the maximum safe working load (SWL) of the front end loader?



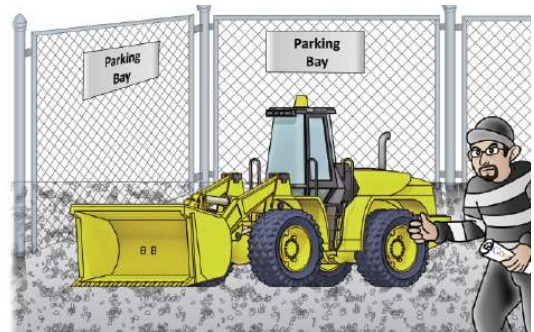
Question 63

What do you do before leaving the loader unattended?



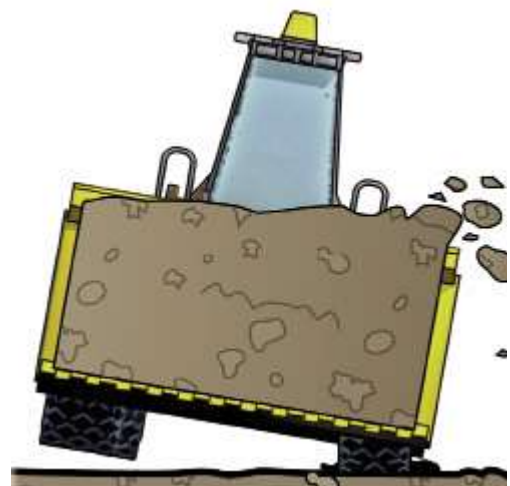
Question 64

Why should you remove the keys from the loader when leaving it parked?



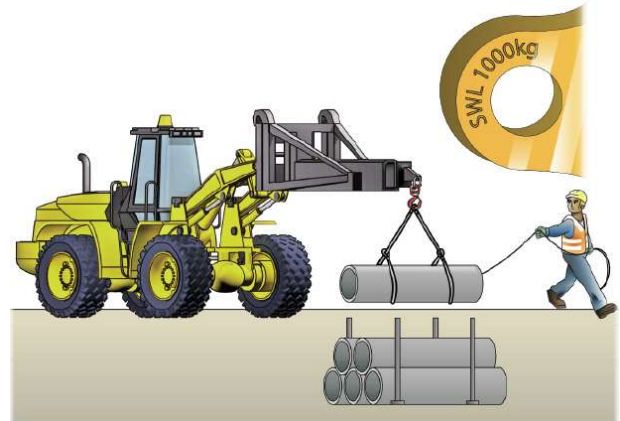
Question 65

Why do the front tyres on a front end loader need to be equal pressure?



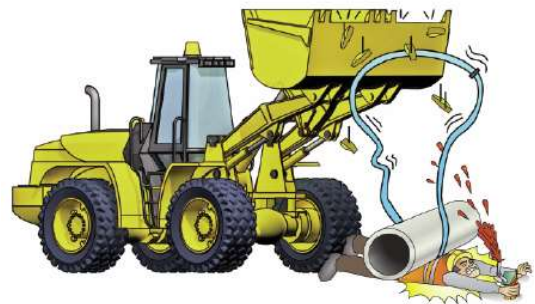
Question 92

Not all front end loaders can be used to sling a load. You want to use the front end loader for slinging a load. What must the loader have?



Question 93

What could happen if you attach slings to the bucket's teeth?



Question 94

What could happen if you use the loader on uneven or sloping ground?



Wheeled Front End Loader

Record of Training Logbook / Verification of competency (VOC)



RIIMP0321F
Conduct civil construction wheeled
front end loader operations



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Contents

Operator, employer, supervisor and training details	(i)
Purpose of this logbook	1
How to use this logbook	2
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Plan and prepare for wheeled front end loader operations	6
Operate front end loader in line with established requirements	24
Attach, secure, lift, carry and place materials to complete work activity	38
Prepare to relocate the front end loader	50
Conduct housekeeping activities	58

How to use this logbook

1. Fill out the details at the start of this logbook – operator's name, address etc.
2. Wear the personal protective equipment (PPE) you need to wear.
3. After you have finished working, you can start filling out your logbook. Start by writing down the work you have done.
4. Make sure you fill in each section of your logbook. Your supervisor will sign the supervisor section if s/he believes the details are correct and the tasks have been completed in a satisfactory way.



Element/Work tasks	Description of work/training performed
<p>PC 1.3</p> <p>Hazards and environmental issues</p> <p>Identify hazards and environmental issues, assess the risks and implement control measures in line with workplace policies</p>	<p><i>I looked around the site and found that a busy footpath was near my working area. People walking by might be at risk. I put up barricades and signs to warn people of the danger nearby. I then checked the front end loader. I checked oil, petrol and hydraulic fuel.</i></p>
	<p><i>I had to use the front end loader near a trench. The trench was about 2 metres deep. No-one had put up any warning signs or barriers. I put up a row of barricades 3 metres away the trench. This would give me a safe working distance and also keep other people away</i></p>
	<p><i>The job plan said that I needed to use a ripper. I fitted this attachment on the front end loader.</i></p> <p><i>The work site is noisy. A jackhammer was being used nearby so I wore some ear muffs while I worked. I also put on other PPE including steel capped boots and a hard hat as there were safety signs telling me to wear these.</i></p>

Date/time	No. of hours	Machine details	Supervisor/competent person
Date: <u>17 / 02 / 2020</u> Start time: <u>8.00</u> am pm	<u>15 minutes</u>	Make: <u>Caterpillar</u> Model: <u>980F</u> Serial No: <u>12847839</u>	Name: <u>Nathan Deeman</u> Signed: <u>Nathan D</u> Experience/qualifications: <u>20 years on the job experience</u> <u>and Cert IV</u>
Date: <u>18 / 02 / 2020</u> Start time: <u>10.30</u> am pm	<u>5 minutes</u>	Make: <u>Caterpillar</u> Model: <u>980F</u> Serial No: <u>12847839</u>	Name: <u>Nathan Deeman</u> Signed: <u>Nathan D</u> Experience/qualifications: <u>20 years on the job experience</u> <u>and Cert IV</u>
Date: <u>19 / 02 / 2020</u> Start time: am <u>2.30</u> pm	<u>20 minutes</u>	Make: <u>Caterpillar</u> Model: <u>980F</u> Serial No: <u>12847839</u>	Name: <u>Sam Hasseron</u> Signed: <u>S.H.</u> Experience/qualifications: <u>Cert IV in Training & Assessing and</u> <u>RII RTO statement of</u> <u>attainment in front end loader</u>

Notes



A series of horizontal dotted lines spanning the width of the page, intended for writing notes.

Element 1

Plan and prepare for front end loader operations



Element/Work tasks	Description of work/training performed
PC 1.1 Access, interpret and apply front end loader operations documentation	

Date/time	No. of hours	Machine details	Supervisor/competent person
Date: Start time: am pm		Make: Model: Serial No:	Name: Signed: Experience/qualifications:
Date: Start time: am pm		Make: Model: Serial No:	Name: Signed: Experience/qualifications:
Date: Start time: am pm		Make: Model: Serial No:	Name: Signed: Experience/qualifications:

Element 2

Operate front end loader in line with established requirements

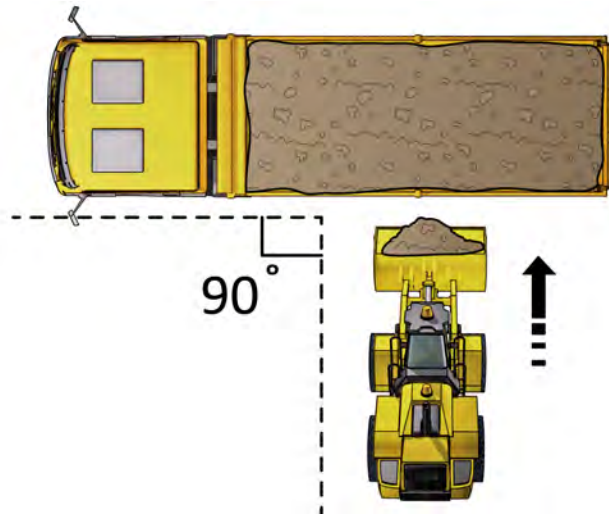


Element/Work tasks	Description of work/training performed
PC 2.1 Carry out prestart and start-up checks in line with workplace procedures	

Date/time	No. of hours	Machine details	Supervisor/competent person
Date: Start time: am pm		Make: Model: Serial No:	Name: Signed: Experience/qualifications:
Date: Start time: am pm		Make: Model: Serial No:	Name: Signed: Experience/qualifications:
Date: Start time: am pm		Make: Model: Serial No:	Name: Signed: Experience/qualifications:

Element 3

Attach, secure, lift, carry and place materials to complete work activity



Wheeled Front End Loader

Mapping Document

RIIMPO321F

Conduct civil construction
wheeled front end loader operations



Industry Training Resources

The information and questions contained in the Learner Guide and PowerPoint presentation have been mapped to the elements, performance criteria, and knowledge evidence for the unit of competency RIIMPO321F Conduct civil construction wheeled front end loader operations.

Elements and Performance Criteria

Element 1	Performance Criteria	Learner Guide/PowerPoint/Review Questions	Assessment	Learner Workbook
Plan and prepare for wheeled front end loader operations	1.1 Access, interpret and apply front end loader operations documentation	<ul style="list-style-type: none"> Who has duty of care? Workers duty of care PCBU/Employers duty of care Australian standards Work health and safety legislative requirements Where to find health and safety information <p>Question 1, 2, 3, 4, 5, 6, 15</p> <p>PowerPoint Workbook Question/s: 1, 2, 3, 4, 5, 6, 15, 43</p> <ul style="list-style-type: none"> Who has a Duty of Care Worker's Duty of Care PCBU/Employer's Duty of Care Work Health & Safety Legislative Requirements The Chain of Responsibility JSA 	<p>Knowledge assessment 1</p> <p>Practical assessment 1. Pre-start</p>	<p>Practical assessment 1. Pre-start</p> <p>Question 1, 2, 3, 4, 5, 6, 15</p>
	1.2 Obtain, interpret, clarify and confirm work requirements	<ul style="list-style-type: none"> Worksite requirements Calculations <p>Question 7, 8, 10</p> <p>PowerPoint Workbook Question/s: 7, 9, 10</p> <ul style="list-style-type: none"> Calculations 	<p>Knowledge assessment 2, 3</p> <p>Practical assessment 3. Complete operations to spec.</p>	<p>Practical assessment 3. Complete operations to spec.</p> <p>Question 7, 8, 10</p>
	1.3 Identify hazards and environmental issues, assess the risks and implement	<ul style="list-style-type: none"> Earthmoving site hazards Environmental management plan 	<p>Knowledge assessment 4, 5, 6, 7, 8</p>	<p>Practical assessment 2. Drive and operate wheeled</p>

	<p>control measures in line with workplace policies</p>	<ul style="list-style-type: none"> • Earthmoving hazards and risks • Decibel levels of common sounds • Chemicals and solvents • Fatigue • Safety around trenches • Confined space • Disposing of environmentally sensitive fluid • Clean up • Job safety and environmental analysis (JSEA) or Safe work method statement (SWMS) • Overhead powerlines on poles (National Standard) • Overhead powerlines on towers (National Standard) <p>Question 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 37, 40, 41, 42, 43, 44, 51, 96</p> <p>PowerPoint Workbook Question/s: 17, 18, 19, 20, 23, 24, 25, 28, 29, 37, 40, 42, 43, 44, 96</p> <ul style="list-style-type: none"> • Earthmoving hazards and risks • Decibel levels of common sounds • Safety around trenches • Clean up • JSEA, SWMS • Overhead powerlines on poles and towers 	<p>Practical assessment 2. Drive and operate wheeled front end loader</p>	<p>front end loader</p> <p>Question 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 37, 40, 41, 42, 43, 44, 51, 96</p>
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Element 1	Performance Criteria	Learner Guide/PowerPoint/Review Questions	Assessment	Learner Workbook
Plan and prepare for wheeled front end loader operations	1.4 Select and wear personal protective equipment required for work activities	<ul style="list-style-type: none"> Tools and equipment Question 25, 29 PowerPoint Workbook Question/s: 25, 28, 29	Knowledge assessment 9 Practical assessment 1. Pre-start	Practical assessment 1. Pre-start Question 25, 29
	1.5 Obtain, identify and implement traffic signage requirements according to standard operating procedures and safe work practices	Question 30, 31, 32, 96 PowerPoint Workbook Question/s: 30, 32, 42, 96	Knowledge assessment 10, 45, 46 Practical assessment 2. Drive and operate wheeled front end loader 4. Load, unload and relocate front end loader	Practical assessment 2. Drive and operate wheeled front end loader 4. Load, unload and relocate front end loader Question 30, 31, 32, 96
	1.6 Select required wheeled front end loader equipment and confirm suitability for work activities	<ul style="list-style-type: none"> Tools and equipment PowerPoint Workbook Question/s: 92, 93, 94, 96, 97	Knowledge assessment 11 Practical assessment 3. Complete operations to specification	Practical assessment 3. Complete operations to specification
	1.7 Obtain and interpret emergency procedures for wheeled front end loaders, and be prepared for fires, accidents and emergencies	<ul style="list-style-type: none"> Worksite requirements Emergency evacuation plan First aid and emergencies Safety plan Question 11, 45 PowerPoint Workbook Question/s: 45 <ul style="list-style-type: none"> First aid and emergencies 	Knowledge assessment 12, 13 Practical assessment 1. Pre-start	Practical assessment 1. Pre-start Question 11, 45
	1.8 Coordinate and communicate planned	Question	Knowledge assessment 18, 29, 30	Practical assessment 3. Complete operations to