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**Please complete this form with your details.**

**Learner to complete:**

Your details	
Name:	
Contact number:	
Email:	
Start date:	

**If you are working, write the following information:**

Place of work	
Company name:	
Address:	
Postal address (if different):	
Workplace supervisor name:	
Phone number:	
Fax:	
Email:	

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# Before you begin

This learner guide is based on the unit of competency  
*FSKNUM15 Estimate, measure and calculate with routine metric measurements for work*, Release 1.

## How to work through this learner guide

Your trainer or assessor will tell you which parts of the learner guide you need to read, and which activities you need to finish. The learner guide has the following parts.

Part	How you use it
Learning content	Read each topic. If you cannot understand it, talk to your trainer.
Examples	This learner guide has examples of completed documents that may be used in a workplace.
Video clips	Where you see a QR code, you can use a smartphone or tablet to access video clips about the content. For information about how to download an app that will read the QR code or for more help, please visit our website: <a href="http://www.aspirelr.com.au/help">www.aspirelr.com.au/help</a> . 
Checkpoints	Checkpoints help you make sure you understand what you have read. Your trainer will tell you which activities to do.
What you have learned	At the end of the learner guide, there is a list of what you have learned. You can use this to check you are ready for the final assessment.
Final assessment	Your assessor may ask you to do the final assessment tasks. The assessment tasks allow you to show the assessor what you have learned.

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## Your story

Today is your first day working as an assistant at Willow Bend Holiday Camp. You will be helping Ben. Ben is the camp cook and handyman, and your supervisor. The camp has 30 children and 10 adults including Ben and yourself.

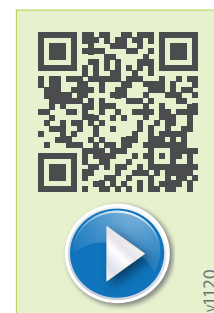
You have previously worked at Willow Bend Aged Care Home. Some of the tasks you did there are similar, so that experience will help you to work at the holiday camp.

When Ben is preparing to cook, he will give you a list of the food items he needs from the storeroom and coolroom. He will need some items measured out for him in the kitchen.

The storeroom also needs a new shelf. Ben would like you to get the timber ready for him so he can build it.

Ben also wants to build a new play area. The area needs to be covered in shade cloth, so the children can play in the shade. He wants you to work out how much shade cloth he needs to order.

Ben explains your tasks. Tasks are things you do, to do your job.



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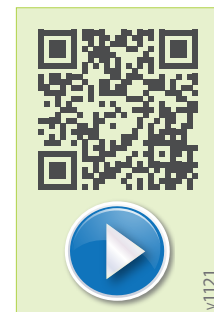
## Day 1

On your first day of work, Ben shows you around the camp. He shows you the storeroom and the coolroom.

The storeroom is used for storing dry goods. Dry goods are food items, like flour and canned foods, which do not need to be kept cool.

The coolroom is where the milk, fruit and vegetables are stored to keep them cold. Ben shows you where the thermometer is in the coolroom. The thermometer tells you the temperature of the coolroom. He explains that you need to read the temperature of the coolroom twice a day. He shows you the logbook and where to record the temperature readings.

Today you will help Ben make soup. You need to get the right ingredients out of the coolroom and storeroom for Ben.









## Interpreting measurements

Ben is making tomato soup for lunch. There are 30 children and 10 adults. To help Ben, you need to interpret the measurements of the recipe. 'Interpret' means that you need to understand what a measurement means. A measurement is the size, amount or length of something. The type of measurement you use is called a unit of measurement.

When you interpret measurements for a recipe, the units of measurement will be different from those you would use to build a shelf.

The following table explains some units of measurement.

Measurement	What it means	Unit of measurement	When it is used at Willow Bend Holiday Camp
Quantity	The amount of something	<ul style="list-style-type: none"><li>• Teaspoons</li><li>• Cups</li><li>• Litres</li></ul>	<ul style="list-style-type: none"><li>• Cooking</li><li>• Making meals</li><li>• Making drinks</li></ul>
Per	For each one	<ul style="list-style-type: none"><li>• Numbers</li></ul>	<ul style="list-style-type: none"><li>• Adjusting recipes for each person</li></ul>
Weight	How heavy or light something is	<ul style="list-style-type: none"><li>• Grams</li><li>• Kilograms</li></ul>	<ul style="list-style-type: none"><li>• Measuring ingredients for cooking</li></ul>
Length	How long something is	<ul style="list-style-type: none"><li>• Millimetres</li><li>• Metres</li><li>• Kilometres</li></ul>	<ul style="list-style-type: none"><li>• Taking children for a walk</li><li>• Working out the amount of shade cloth needed for the children's play area</li></ul>

Amount	Measurement	Ingredient	What the measurement looks like
1	Cup	Olive oil	
5	411 g cans	Chopped tomatoes	
5	411 g cans	Whole tomatoes	
5	Litres	Chicken stock	
4	Teaspoons	Salt	
4	Teaspoons	Sugar	



## Millimetres, centimetres and metres

Millimetres, centimetres and metres are used to measure small lengths or distances. This means how long or short something is, or the distance between two things or places. We use measuring equipment like rulers, tape measures and trundle wheels to measure length.

Here is an example of how millimetres and metres work together:

- There are 10 millimetres in 1 centimetre.
- There are 100 millimetres in 10 centimetres.
- There are 1000 millimetres in 100 centimetres or 1 metre.

**Millimetre**      **mm**      10 millimetres = 1 cm

Millimetres can be measured on a ruler.



**Centimetres**      **cm**      100 millimetres = 10 cm

Centimetres can also be measured on a ruler.



**Metre**      **m**      1000 millimetres = 100 centimetres or 1 metre

Metres can be measured on a measuring tape.



There is also a very tiny unit of measurement called a micrometre.

There are 1000 micrometres in 1 millimetre.

The piece of equipment that measures a micrometre is called a micrometer.

This is what the Coolroom Record Sheet looks like. Use this sheet to practise recording time and temperature.

Coolroom Record Sheet														
Week of:														
Cool-room	Monday		Tuesday		Wednesday		Thursday		Friday		Saturday		Sunday	
	Time	°C	Time	°C	Time	°C	Time	°C	Time	°C	Time	°C	Time	°C
1	9.00 am	4°												
2	3.00 pm	4°												
3	7.00 pm	4°												

## What has happened on Day 1

On your first day of work at Willow Bend Holiday Camp, you have learned about:

- interpreting measurements, including:
  - measurements in the workplace
  - measurements and measuring equipment
  - units of measurement
  - using measuring equipment.

## Checkpoint: Day 1

Read the following questions. Place a tick ✓ inside the box in front of the correct answer.

1. What is a kilogram made up of?  
☐ Millilitres  
☐ Grams  
☐ Centimetres
2. What is temperature measured in?  
☐ Grams  
☐ Degrees  
☐ Millilitres
3. What does the prefix 'kilo' mean?  
☐ 100  
☐ 10  
☐ 1000
4. How many grams are there in 1 kilogram?  
☐ 100  
☐ 10  
☐ 1000
5. When this symbol (°C) is after a number, what does it mean?  
For example, 150 °C.  
☐ Weight in grams  
☐ Degrees Celsius  
☐ Length in centimetres

Here are examples of symbols, the symbol name, what they look like and what their purpose is.

**+ Plus or addition** Adds numbers together



**= Equals** Calculates the answer



**- Minus or subtraction** Subtracts (takes away) one number from another number



**X or \* Multiply by or times** Multiplies (times) one number by another number



**÷ or / Divided by or division** Divides one number by another number



**Step 5**

Now, convert centimetres to metres.

Use the tape measure reading, because you need to be exact:

- Length  $1150 \text{ cm} \div 100 = 11.5 \text{ m}$
- Width  $800 \text{ cm} \div 100 = 8 \text{ metres}$

**Step 6**

To work out how many square metres of shade cloth Ben needs to order, multiply the length by the width:

$$11.5 \times 8 = 92 \text{ m}^2$$

You tell Ben that he needs to order 92 square metres of shade cloth for the new play area at Willow Bend Holiday Camp. Ben thinks this is going to cost too much. He decides to cover part of the play area. He asks you to work out how many square metres it would be if he covered a square area instead.

**Step 7**

A square has four sides of equal length. You use the measurements that you made with the tape measure. You have used the width measurement:

$$\text{Width} = 8 \text{ m}$$

The square is  $8 \text{ m} \times 8 \text{ m}$ . To find out the area, multiply 8 by 8:

$$8 \times 8 = 64 \text{ m}^2$$

The amount of shade cloth that Ben will need to order to cover the play area is 64 square metres.

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## What you have learned

Well done. Since you have started working at Willow Bend Holiday Camp you have learned about:

- interpreting measurements, including:
  - measurements in the workplace
  - measurements and measuring equipment
  - units of measurement
  - using measuring equipment
- converting units of measurement
- making calculations using different methods
- recording information.

You are now ready for the Final Assessment.

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# Final assessment

## How to work through this final assessment

This final assessment is for the unit *FSKNUM15 Estimate, measure and calculate with routine metric measurements for work*, Release 1.

An assessor will look at the tasks you complete and decide if you are competent for this unit. Your assessor may be your trainer or your workplace supervisor.

This assessment has six sections.

Section	Explanation
1. Assessment information	This section has information about who the assessment is for and the aims of the final assessment.
2. Are you ready for assessment?	This section is for you to check that you are ready to do the assessment.
3. Final assessment overview	This section explains the assessment tasks you will do.
4. Assessment plan	You will complete a form with your assessor. Your assessor will talk to you about the assessment tasks. You will need to sign the form to say that you have understood what has been discussed.
5. Final assessment tasks	This section has the tasks for you to do.
6. Record of outcome	Your assessor will use the work that you do to make a decision on your competence. They will discuss your work to give you feedback and tell you about their decision.



**Question 10:** How many millimetres are in a metre?

**Answer:**

- ☐ 1000 mm
- ☐ 100 mm
- ☐ 10 mm

**Marking:** ☐ Satisfactory ☐ Unsatisfactory

**Question 11:** Which of the following is correct?

**Answer:**

- ☐ 10 mm = 1000 cm = 1 m
- ☐ 500 mm = 50 cm =  $\frac{1}{2}$  m
- ☐ 1000 mm = 100 cm = 10 m

**Marking:** ☐ Satisfactory ☐ Unsatisfactory

**Question 12:** What would a digital clock show for the following time?



**Answer:**

- ☐ 12:05:05
- ☐ 11:05:55
- ☐ 11:55:05

**Marking:** ☐ Satisfactory ☐ Unsatisfactory

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# Solutions to Checkpoints

## Checkpoint: Day 1

1. The learner must have placed a tick in the box beside 'Grams'.
2. The learner must have placed a tick in the box beside 'Degrees'.
3. The learner must have placed a tick in the box beside '1000'.
4. The learner must have placed a tick in the box beside '1000'.
5. The learner must have placed a tick in the box beside 'Degrees Celsius'.
6. The learner must have placed a tick in the box beside 'kilometres'.
7. The learner must have placed a tick in the box beside 'Place the thermometer in a cup of boiling water'.
8. The learner must have placed a tick in the box beside 'Metres'.
9. The learner must have placed a tick in the box beside 'mm'.