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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.

Watch this video about your role at Willow Bend Holiday Camp.



Different types of measurements in the workplace

These are some examples of the type of task you may need to do in different workplaces, what you may need to measure and the units of measurement that are used.



Timber yard

Workplace task:

Measure the length, width and height of timber

Units of measurement used:

- Millimetres
- Metres

Examples of workplace documents that you may need to read:

Plans for building houses, fences or sheds use measurements.



Café

Workplace task:

Measure the quantities of ingredients used in a recipe.

Units of measurement used:



- Millilitres
- Litres
- Grams
- Kilograms

Examples of workplace documents that you may need to read:

Recipes, orders for food ingredients

Units used for measuring weight

The table below provides some more information about the different units used to measure weight.

Unit	Abbreviation	Description
gram	g	<ul style="list-style-type: none"> Measures weight – usually up to 1000 g (or 1 kg). Grams are very light. For example, 1 gram is about as heavy as a couple of matches and an unused tea bag weighs about 2½ grams. Grams are often used to measure quantities of food. <p>These oranges weigh 550 grams.</p> 
kilogram	kg	<ul style="list-style-type: none"> Measures weight – usually more than 1 kg. 1 kilogram is about the same weight as a litre of milk or juice or water. Kilograms are used to measure a range of things, such as food and bags of cement. If something weighs over a kilogram, we may talk about it in kilograms and grams. For example 2kg and 200g. 1 kg = 1000 g <p>These oranges weigh 1 kg.</p> 

What has happened on Day 1

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

- identifying and interpreting measurements
- units of measurement
- converting units of measurement
- measuring equipment
- selecting and using measuring equipment.





Day 2

On your second day of work at Willow Bend Holiday Camp, 10 children and 10 adults come to visit. This means there is a total of 40 children and 20 adults at the camp. Ben asks you to make drinks for everyone. He also asks you to get the ingredients from the storeroom and coolroom so he can make scones.

Ben then wants you to help him put up shelves in the storeroom. He tells you that you may need to measure and cut the timber to the lengths you need.

Ben also wants to start his project to build a new play area for the children this week. He needs you to measure how much shade cloth he needs so he can order the shade cloth.

Example: using subtraction at work

The total length of the edging is 5000 mm or 5 m.

You now need to measure 600 mm and cut off that length. Before you do that you want to work out how much edging you will have left after you have cut off the 600 mm.

To work out how much you will have left you work it out like this:

- 5000 mm is the length of edging.
- 600 mm is the length of the smaller shelf.
- You subtract what you need from what you have.

It looks like this when you use a calculator:

$$5000 - 600 = 4400$$

You will have 4400 mm of edging left.

To work out how much you need to take off the length of edging to make it the right size for the longer shelf for the storeroom, you work it out like this:

- 4400 mm is the length of edging you have.
- 3500 mm is the length of the longer shelf.
- You subtract what you need from what you have.

It looks like this when you use a calculator:

$$4400 - 3500 = 900$$

This means you have a 900 mm piece of edging left.



Multiplication

Multiplication is just a quick way of adding the same amount a number of times.

For example, at Willow Bend Holiday Camp, you might need to work out how many bottles of juice you might need for three days. You use six bottles of juice each day. That is you need to work out what 3 lots of 6 is.





$$6 + 6 + 6 = 18$$

is the same as

$$3 \text{ lots of } 6 = 18$$

or

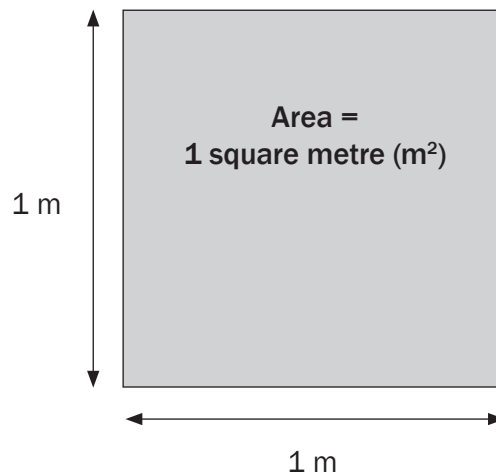
$$3 \times 6 = 18$$

3	×	6	=	18		
OR						
6	+	6	+	6	=	18
						

You may need to use multiplication when you do calculations with weight, length, volume, time and temperature.

Area is measured in **square metres**. This is abbreviated to **sq m** or **m²**.

One **square metre** equals the area of a square 1 metre wide by 1 metre long.



To work out how much shade cloth is needed to cover the play area, you need to work out how many square metres (m²) the area is.



Communicating mathematical information

In a workplace, it is important to record and communicate the results of calculations clearly and correctly. You may also need to explain the process you used to get the results. To do these, use the mathematical language that is used in your workplace.

Depending on where you work, there may be specific words to communicate numerical information and results.



What you have learned

Well done. While working at Willow Bend Holiday Camp, you have learned about:

- identifying and interpreting measurements
- units of measurement
- converting units of measurement
- measuring equipment
- selecting and using measuring equipment.
- maths words and symbols
- making calculations - adding, subtracting, multiplying and dividing
- solving mathematical problems
- estimating
- measuring
- checking calculations
- calculating area
- formal and informal language.

You are now ready for the Final Assessment.