

Working sustainably



Supporting:

MSAENV272B

***Participate in environmentally
sustainable work practices***



Workbook

Name:

Working sustainably

Workbook

Containing learning activities and assignments for the unit of competency:

MSAENV272B: Participate in environmentally sustainable work practices

The assignment templates are also available in an electronic 'Word' version, downloadable from the Flooring technology website at:

www.flooringtech.com.au



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Introduction

Working sustainably is a 'learning unit' from the Flooring Technology training resource. It supports the following competency from the *Certificate III in Flooring Technology* (LMF31208):

- *MSAENV272B: Participate in environmentally sustainable work practices*

To be assessed as competent, your assessor will use a range of methods to check your understanding of the concepts presented in the Learner guide for this unit and your practical ability work in an environmentally sustainable way.

These may include:

- written assignments
- practical demonstrations
- on-the-job discussions about how you go about particular activities
- learning activities undertaken while you're progressing through the unit
- examples of installations you have undertaken
- log book or work diary.

Literacy, numeracy and computer skills

Literacy is the ability to read and write. To complete this qualification, you will need sufficient literacy skills to produce a range of workplace documents. You will also need the skills to be able to read and understand documents such as order forms, installation instructions, project briefs and safe operating procedures.

Numeracy is the ability to work with numbers. Flooring installers need to do lots of measure-ups and calculations, so there will be many opportunities for you to learn and practise your numeracy skills.

When it comes to completing the written assignments for this qualification, a certain level of literacy ability is required to read the questions and write down your answers. There will also be times when you are asked to generate documents on a computer.

Obviously, it's important that you clearly understand what the assignment is asking you to do, and that your work is a good reflection of what you really know. So if you're having trouble reading the questions, writing down your answers, or using certain computer programs, make sure you speak to your trainer before you hand the assignment in.

There are various ways your trainer can help you. For example, they may be able to ask the assignment questions verbally and help you to write down your answers.

They may also be able to show you sample answers to similar questions, which will let you look at the way they're written and give you hints on how to write your own. You may also be allowed to do the assignment with the assistance of another person.

Applying for RPL

RPL stands for **Recognition of Prior Learning**. It is a form of assessment that acknowledges the skills and knowledge you have gained through:

- on-the-job experience
- formal training in other courses
- life experience, through your hobbies or other outside activities.

If you believe that you are already competent in some or all of the skills covered in this unit, ask your assessor about how to apply for RPL.

Using this workbook

All of the lessons in the Learner guide for this unit have learning activities at the end. Their purpose is to provide discussion points and questions to help reinforce your understanding of the concepts being presented.

There are also a range of assignments, which appear at the end of each section. These are designed to test your knowledge of the subject matter and ability to submit written responses in an acceptable format.

This workbook reproduces all of the learning activities and assignments in a format that lets you handwrite your answers to the questions.

Note that your trainer may ask you to produce a computer-generated document for all of the formal assignments, either printed out in hard copy or submitted electronically. To do this, go to the website version of the unit and look for the *Assignment* link in each section. This will allow you to type your answers into the 'Word' document and then either print it out or email it direct to your trainer as an attachment.

You may also be asked to share your learning activity answers electronically, especially if you are undertaking this unit by distance learning and are linked up with fellow students in other locations. This might be done through group emails or via a social networking site such as Facebook. In these cases, you should use the website resource rather than this workbook.

Part 1

Learning activities



Section 1: Resources used at work

Identifying resources

Choose a floor covering product that you handle at work and answer the following questions in the table below:

- What is the product called?
- What is it made from? If there are several layers in the product, name each of the materials that make up the layers.
- What naturally-occurring raw materials go into the make-up of these components?

Product	
Make-up of components	
Raw materials	

Measuring usage levels

Identify a consumable resource or energy source you use at work where only a proportion is required for any given task. Name the resource and the method you would use to measure its consumption.

Describe a specific task and estimate how much of the resource you would use up to complete that task.

Resource	
Method of measurement	
Description of task	
Amount of resource used	

Section 2: Environmental issues at work

Air quality

What types of activities do you undertake at work that release air pollutants, or have the potential to reduce the air quality? If you don't directly engage in these sorts of activities, what products do you handle that could affect the air quality if they were not stored or disposed of in an appropriate way?

Name one form of dust and at least one other example of an air pollutant.

Dust pollutant	
Other air pollutant	

Stormwater

Name a substance or material at your workplace that could end up going into the stormwater system and polluting the waterways if there weren't measures in place to stop it from happening.

Trade wastewater

- Does your company produce trade wastewater? If it does, what types of contaminants are held in the water? How are the contaminants disposed of?

If your company doesn't produce trade wastewater, think of a product you use that would result in trade wastewater being generated during its manufacture. What is the product, and what types of contaminants would be held in the wastewater?

Hazardous substances

Where are the MSDSs kept for the hazardous products you use at work?

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Get a copy of an MSDS for a particular product you commonly use. You will need it to answer the MSDS questions in the assignment for this section.

Laws and procedures

Give one example of an environmental policy or procedure at your workplace that directly affects the work you do. Explain how it affects the way you carry out a particular task.

Policy or procedure	
How it affects your work	

Section 3: Improving efficiency

Using less power

Think about the ‘non-process’ power usage in your workplace – that is, the electricity used in activities not directly related to production. Areas could include amenities buildings, lunchrooms, kitchens, store rooms, and so on.

Are there any actions that could be taken to conserve power usage? Describe what they are and who would be involved.

Actions to conserve power	
People involved	

Using less water

Take a walk around your worksite and look for any areas where water is leaking or being used unnecessarily. The issues you find could include dripping taps, leaking connections, inefficient sprinkler systems, or even work practices that use excessive water.

Describe the problem and the best way to fix it. Who would you report this problem to?

Problem	
Resolution	
Report to	

Managing waste

Go to the following article by David Wheeldon, published on the Building Products News website at:

<http://www.bpn.com.au/features/bpn-reports/vinyl-flooring-product-review>

Under the subheading 'Product news' (halfway through the article), there are brief summaries of the latest products released by the main manufacturers.

Read the article and then answer the following questions:

1. Do you use any of these products? If so, which ones?

2. What sorts of projects have you used them in?

Part 2

Assignments



Assignment 1

Name		Date	
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Choose a particular type of installation you carry out, or a task you regularly undertake at work, and then answer the questions below. You may use the same examples from the learning activities as a starting point for your answers.

Identifying resources used

1. Describe the type of installation or the task.

2. What materials and other items are used to complete the installation or task?
Which natural resources do these materials and items come from?

Items or materials used	Natural resources that the items come from

3. What other consumable items are used in the project? Which natural resources do these consumable come from?

Other consumable items used	Natural resources that the consumables come from

4. What are the 'process' energy requirement for the project? Which natural resources are needed to provide these energy requirements?

'Process' energy	Natural resources used

5. What are the 'non-process' energy requirement for the project? Which natural resources are needed to provide these energy requirements?

'Non-process' energy	Natural resources used

Measuring resource usage

6. Write down the quantities of the materials, items and other consumables that go directly into the finished project. Also specify the unit of measurement you have used to quantify the amounts.

Item or material	Unit of measure	Quantity used

Other consumables	Unit of measure	Quantity used

Process energy	Unit of measure	Duration of use (or other quantity)

Assignment 2

Name		Date	
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Some of the questions below follow on from the learning activities in this section. You may start with the same examples you raised in the learning activities and build on them for these answers.

Controlling air quality

1. (a) Name a substance or emission produced at your workplace that would reduce the air quality if it was not properly controlled.

- (b) Describe the control measures your company takes to manage the problem.

Protecting stormwater

2. (a) Name a substance or material at your workplace that could end up polluting the stormwater system if there weren't measures in place to stop it from happening.

- (b) Describe the control measures your company takes.

Reading an MSDS

3. Choose a Material Safety Data Sheet (MSDS) that relates to a product you use at work. Answer the following questions.

(a) What is the trade name or technical name of the product?

(b) What is the product used for? Provide a brief description of the product.

(c) Is there a fire risk with the product? If so, what equipment is required to put out a fire?

(d) What should you do in the event of a spill? Describe the clean-up process.

(e) How should you dispose of the product?

Following procedures

4. (a) If there was an environmental incident or problem at your workplace, who would you report it to on-site?

- (b) When does an incident need to be reported to the Environment Protection Authority?

Assignment 3

Name		Date	
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Managing waste

1. What are the '3 Rs' of waste management?

R
R
R

2. Name an item or material that you apply this principle to at work, and describe what you do with it. If you don't already apply this practice, describe what you could do in the future.

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Suggesting improvements

3. Choose one type of product you use regularly at work. Identify a brand name that is marketed as 'environmentally friendly' by the manufacturer. You may already be using this brand name product, or you may simply have heard that it is available as an alternative to the product you're currently using.

Answer the following questions:

- (a) What is the brand name and who is the manufacturer?

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(b) What type of product is it?

(c) What features make the product more 'environmentally friendly' than alternative (or more traditional) products?

4. Who is responsible for environmental care in your workplace?

5. If you came up with a new idea that made a work activity more environmentally friendly, how would you go about putting it to the company?