Working sustainably

Supporting:

MSAENV272B: Participate in environmentally sustainable work practices

DEVELOPED BY WORKSPACE TRAINING FOR
intar
INDUSTRY NETWORK TRAINING & ASSESSMENT RESOURCES

Work book

KITCHEN AND CABINET BATHROOM MAKING

Name:

Working sustainably

Workbook

Containing learning activities and assignments supporting 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 INTAR website at:

www.intar.com.au

ISBN: 978-1-925087-34-5

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About INTAR

Industry Network Training and Assessment Resources (INTAR) is a partnership owned by Workspace Training and Vaughan Consulting Software Solutions – the development team that produced the original Flooring Technology project for the Commonwealth Government WELL Program.

INTAR was formed to enable the development work to continue, following the abolition of the WELL Program in 2014. All new materials are now paid for by subscribers and members who contribute to the INTAR funding pool. Access to the subscription site is via a password protected area.

Members of INTAR include TAFE teachers, RTO trainers, manufacturers and other suppliers of industry products and services.

In addition to learner guides, workbooks and on-line materials, INTAR also provides members with the following resources and services:

- nationally validated assessment tools for all competencies covered in the learning materials
- participation in the validation groups that meet to validate assessment tools and strategies
- forums for direct consultation with manufacturers, employers and other industry personnel
- evidence of the continuous improvement, validation and consultation processes, suitable for use in demonstrating compliance with the *Standards for RTOs 2015.*

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Introduction

Working sustainably is a 'learning unit' from the Kitchen and bathroom cabinetmaking training resource. It supports the following unit of competency from the *Certificate III in Cabinetmaking (Kitchen and bathroom)* (MSF31113):

- *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 ability to work in an environmentally sustainably 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
- 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. Cabinetmakers 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

Making a product

Choose a particular cabinet or other item that you manufacture at work and answer the following questions in the table below:

- What is the item?
- What is it made from? Name the materials used in its construction.
- What naturally-occurring raw materials go into the make-up of these components?

Product	
Materials	
Naturally occurring 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

1. 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?

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?

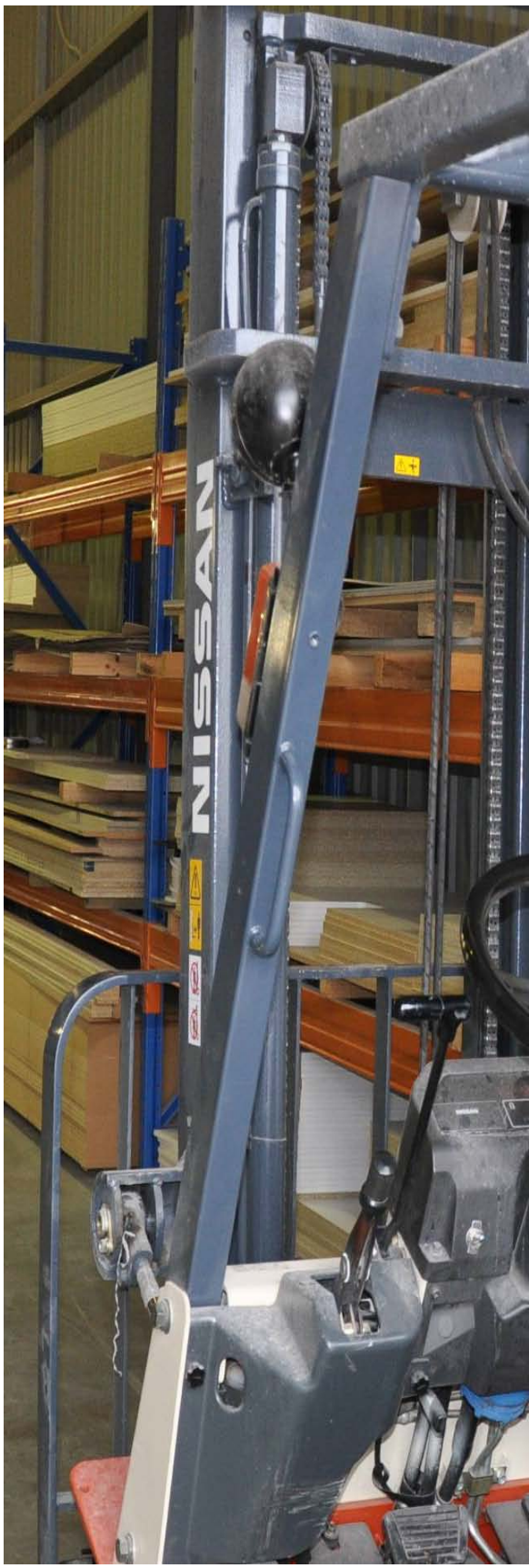
Problem	
Resolution	
Report to	

Managing waste

Think about the waste products that you throw away which end up in landfill. Name one item that might be able to be reused or recycled if the facilities were available at your workplace. Describe how the process of reusing or recycling the item would work.

Part 2

Assignments



Assignment 1

Name		Date	

Task 1. Identifying resources used

Choose a product that you manufacture at work. Think about the types of resources that go into its construction and then fill in the table below.

Product description	

Items or materials in the product	Natural resources that the items come from

Other consumable items used	Natural resources that the consumables come from

‘Process’ energy	Natural resources used

‘Non-process’ energy	Natural resources used

Task 2. Measuring resource usage

Write down the quantities of the materials, items and other consumables that go directly into the finished product. 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	

Task 1. Controlling air quality

(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.

Task 2. Protecting stormwater

(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.

Task 3. Reading an MSDS

Choose a Material Safety Data Sheet (MSDS) that relates to a product you use at work. Answer the following questions by filling in the appropriate boxes in the table below.

(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) Where is the MSDS kept that relates to this product?

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

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

(f) How should you dispose of the product?

Task 4. Following procedures

(a) Give one example of an environmental policy or procedure at your workplace that directly affects the work you do.

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

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

Assignment 3

Name		Date	

Task 1. 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.

(a) Describe the problem and the best way to fix it.

(b) Who would you report this problem to?

Task 2. 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, etc.

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

Task 3. Managing waste

(a) What are the '3 Rs' of waste management?

(b) 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.

Task 4. Suggesting improvements

(a) Who is responsible for environmental care in your workplace?

(b) 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?

Practical demonstration

The checklist below sets out the sorts of things your trainer will be looking for when you undertake the practical demonstrations for this unit. Make sure you talk to your trainer or supervisor about any of the details that you don't understand, or aren't ready to demonstrate, before the assessment event is organised. This will give you time to get the hang of the tasks you will need to perform, so that you'll feel more confident when the time comes to be assessed.

When you are able to tick all of the YES boxes below you will be ready to carry out the practical demonstration component of this unit.

General performance evidence	YES
1. Identify issues at work relating environmental sustainability and resource efficiency	❑
2. Measure and record the usage of materials and resources at work	❑
3. Follow company environmental policies and procedures	❑
4. Report environmental incidents to appropriate personnel	❑
5. Follow company plans to improve environmental practices and resource efficiency	❑
6. Make suggestions on ways to improve practices in own work area	❑