# Written Task: Topic 2 Sustainability and resource efficiency

### Unit code, name and release number

MSMENV272 - Participate in environmentally sustainable work practices (R2)

### Qualification/Course code, name and release number

MSF31113 Certificate III in Cabinet Making (R6)

## Student details

### Student number

### Student name

## Assessment Declaration

* This assessment is my original work and no part of it has been copied from any other source except where due acknowledgement is made.
* No part of this assessment has been written for me by any other person except where such collaboration has been authorised by the assessor concerned.
* I understand that plagiarism is the presentation of the work, idea or creation of another person as though it is your own. Plagiarism occurs when the origin of the material used is not appropriately cited. No part of this assessment is plagiarised.

### Student signature and Date

Version: *1.0*

Date created: *2 August 2018*

Date modified: *07/06/2019*

For queries, please contact:

*Innovative Manufacturing, Robotics and Science SkillsPoint*

*TAFE NSW*

*98 Parry Street*

*Newcastle West*

*NSW 2302*

© 2018 TAFE NSW, Sydney  
RTO Provider Number 90003 | CRICOS Provider Code: 00591E

This assessment can be found in the: [Learning Bank](https://share.tafensw.edu.au/share/access/searching.do?doc=%3Cxml%2F%3E&in=P7ac4831b-430a-4b8d-8b56-f7b32ed5b9cf&q=&type=standard&sort=rank&dr=AFTER)

The contents in this document is copyright © TAFE NSW 2018, and should not be reproduced without the permission of the TAFE NSW. Information contained in this document is correct at time of printing: 7 June 2019. For current information please refer to our website or your teacher as appropriate.

## Assessment instructions

Table 1 Assessment instructions

| Assessment details | Instructions |
| --- | --- |
| **Assessment overview** | The objective of this assessment is to assess your knowledge and performance as would be required to identify sustainability and resource usage issues and to measure resource use at work. |
| **Assessment Event number** | 3 of 5 |
| **Instructions for this assessment** | This is a written assessment and will be assessing you on your knowledge and performance of the unit.  This assessment is in 3 parts:   1. Identify resources used at work and the associated environmental issues 2. Measure resource usage 3. Assessment feedback   Assessment Feedback is provided at the end of the document. |
| **Submission instructions** | On completion of this assessment, you are required to upload it or hand it to your assessor for marking*.*  Ensure you have written your name at the bottom of each page of this assessment.  It is important that you keep a copy of all electronic and hardcopy assessments submitted to TAFE and complete the assessment declaration when submitting the assessment. |
| **What do I need to do to achieve a satisfactory result?** | To achieve a satisfactory result for this assessment all questions must be answered correctly. |
| **What do I need to provide?** | Calculator, pens, note pad, USB/FLASH to download and store electronic files. Internet access and Computer for students off campus if completing online. |
| **What the assessor will provide?** | Computers, Learner Resources, Activity sheets, reference text, organisational policy etc that is referenced in the assessment. These may be hard copy or made available online. |
| **Due date and time allowed** | 60 minutes |
| **Assessment feedback, review or appeals** | Appeals are addressed in accordance with Every Students Guide to Assessment. |

## Specific task instructions

The instructions and the criteria in the tasks and activities below will be used by the assessor to determine whether the tasks and activities have been satisfactorily completed. Use these instructions and criteria to ensure you demonstrate the required performance and knowledge.

## Part 1: Identify resources used at work and the associated environmental issues

Read the questions carefully. Your answers should be a minimum of 2 words but no longer than 20 words *(unless indicated otherwise).*

Using sentences or dot points, answer the following two questions using the spaces provided.

Question 1: What does *resource efficiency* at work mean?

Question 2: List 3 environmental issues that apply to your workplace.

To complete this part of the assessment, you will be required to identify the resources that you use in a typical day at your workplace or in the TAFE workshop.

**Question 3: From the options below, circle all the resources that you use on a typical day at work or in the TAFE workshop.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Electricity | Staples | Glue | Solvent | Timber |
| Sandpaper | Gas | Rag/Cloth | Water | Saw blade |
| Drawer runners | Cleaning products | Drill bits | Manufactured board | Router bits |
| Paint | Varnish | Filler | Detergent | Abrasives |

**Question 4: For three of the items circled above, fill in the information in the table below.**

Read the question carefully. Your answers for each environmental impact should be a minimum of 5 words but no longer than 20 words *(unless indicated otherwise).*

|  |  |
| --- | --- |
| ITEM | What could be the environmental impact of the production or use of this item? |
|  |  |
|  |  |
|  |  |

## Part 2: Measure resource usage

Read the question carefully. Your answer should be a minimum of 20 words but no longer than 50 words *(unless indicated otherwise).*

To complete this part of the assessment, you will be required to record usage of a resource at work.

Think about one or more resources you could measure as part of your job or studies.

For example, you could:

* measure how much of one item you use each day (for example, timber or manufactured board or glue), or
* measure electricity or water usage over a period of time, or
* measure all of the items used to create a finished product.

**Hint:** Appendix 1 provides some examples of how you could approach this task.

Talk to your teacher if you are unsure of how to record usage for the resource you have chosen.

In the space below, ensure that you:

* state what you are measuring
* state the timeframe over which it is being measured
* write the amount of the item used
* include the units that you are using (for example, kilowatt hours for electricity, litres or kilolitres for water, number of items for things like boards of differing sizes).

## Part 3: Assessment Feedback

*NOTE: This section* ***must*** *have the assessor signature and student signature to complete the feedback.*

### Assessment outcome

Satisfactory

Unsatisfactory

### Assessor Feedback

Was the assessment event successfully completed?

If no, was the resubmission/re-assessment successfully completed?

Was reasonable adjustment in place for this assessment event?  
*If yes, ensure it is detailed on the assessment document.*

Comments:

### Assessor name, signature and date:

### Student acknowledgement of assessment outcome

Would you like to make any comments about this assessment?

### Student name, signature and date

***NOTE: Make sure you have written your name at the bottom of each page of your submission before attaching the cover sheet and submitting to your assessor for marking.***

**Appendix 1: Examples of measuring resource usage**

For your response to the task outlined in Part 2, any of the below examples can be used as a method of recording resource usage. You must use your own information in your answer. An unsatisfactory response would include using the exact data as shown below.

**Water usage**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Water metre readings | Before work starts  7am | Shut down  5.30pm | Daily use (litres) | Overnight use (litres) |
| Monday | 4512684 | 4513164 | 480 | 142 |
| Tuesday | 4513306 | 4513819 | 513 | 139 |
| Wednesday | 4513958 | 4514353 | 395 | 143 |
| Thursday | 4514496 | 4514951 | 455 | 144 |
| Friday | 4515095 | 4515503 | 408 | 140 |

**Materials usage**

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Date | Quantity used | Type |
| Timber | 1 Oct | 3.6 metre length  3.3 metre length  4.2 metre length | 190 x 19 mm  140 x 12 mm  400 x 19 mm |
| MDF | 1 Oct | 1 sheet | 1800 x 1200 x 3mm |
| Drawer runners | 1 Oct | 4 left hand, 4 right hand | 350mm |
| Staples | 1 Oct | 50 | 45mm |
| Glue | 1 Oct | 20mL | PVC |

**Electricity usage**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | *From the invoice* | | | *Calculated by Alex* | |
|  | ***Start date*** | ***End date*** | ***kwh used (total)*** | ***Days in period*** | ***kwh per day*** |
| Invoice 1 | 1 Oct | 31 Dec | 4732 | 91 | 52 |
| Invoice 2 | 1 Jan | 31 Mar | 4895 | 89 | 55 |
| Invoice 3 | 1 Apr | 30 Jun | 5760 | 90 | 64 |
| Invoice 4 | 1 Jul | 30 Sept | 6552 | 91 | 72 |

**Sheet material usage**

|  |  |  |
| --- | --- | --- |
| Date: 16 May | Item: Manufactured board | |
| **Board size** | | **Number used** |
| 1200 x 900 | | 39 |
| 1200 x 1200 | | 84 |

**Waste bin level at collection time**

|  |  |
| --- | --- |
| Date | How full |
| 02/04/2019 | Half |
| 09/04/2019 | One third |
| 16/04/2019 | Just over a half |
| 23/04/2019 | Less than a half |
| 30/04/2019 | Half |
| 7/05/2019 | Half |