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Explanatory note

The Toolbox contains resources to address some of the delivery issues facing training providers who service remote Indigenous communities.

The Toolbox serves to:

- redevelop Victorian-owned building and construction materials into a national format that can be deployed by trainers in remote Indigenous communities of Australia
- create a gallery of templates that can be used to inform developers and trainers of the ‘customisability’ of Toolboxes, and to address the different needs of Indigenous communities
- increase the understanding of product developers by identifying, understanding and addressing the needs of remote Indigenous communities
- provide an online professional development kit allowing trainers to access and use the gallery of templates in order to meet the customisation needs of their learners.
Introduction

The Building Skills Toolbox is an online resource developed for the Australian National Training Authority (ANTA).

This guide has been designed to help you construct a learning program using the components of the Toolbox.

What is the Building Skills Toolbox?

The Building Skills Toolbox was designed to support the delivery of four competency standards from the General Construction Training Package.

<table>
<thead>
<tr>
<th>Old competency</th>
<th>New competency</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCG1010A – Carry out concreting to simple forms</td>
<td>BCGCO2003 – Carry out concreting to simple forms</td>
</tr>
<tr>
<td>BCG2004A – Carry out levelling</td>
<td>BCGCM2006A – Apply basic levelling procedures</td>
</tr>
<tr>
<td><strong>Note:</strong> Best match with BCGCM2006A – Apply basic levelling procedures.</td>
<td></td>
</tr>
<tr>
<td>BCG1004A – Carry out measurements and calculations</td>
<td>BCGCM1005B – Carry out measurements and calculations</td>
</tr>
<tr>
<td><strong>Note:</strong> This competency now forms part of BCGCA3010B – Install and replace windows and doors.</td>
<td></td>
</tr>
<tr>
<td>BCG3025A – Install external or internal doors</td>
<td>BCGCA3010B – Install and replace windows and doors.</td>
</tr>
</tbody>
</table>

A Toolbox is a collection of learning materials designed for online delivery. However, the resources can also be used within other delivery modes, including face to face settings and blended learning approaches.
## Competency Information

<table>
<thead>
<tr>
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<td>BCG1004A – Carry out measurements and calculations</td>
<td>BCGCM1005B – Carry out measurements and calculations</td>
</tr>
<tr>
<td>BCG3025A – Install external or internal doors</td>
<td>BCGCA3010B – Install and replace windows and doors</td>
</tr>
<tr>
<td><strong>Note:</strong> This competency now forms part of BCGCA3010B – Install and replace windows and doors.</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** There are some prerequisite competencies required for learners undertaking a qualification.

For current details please refer to the National Training Information Service website: <http://www.ntis.gov.au>.

All of the files in the Building Skills Toolbox are located on the CD-ROM that accompanies this guide, along with the necessary installation and technical guidelines.
What is in this guide?

This guide introduces the various elements of the Building Skills Toolbox and provides some strategies that will help you make the most of this training program.

The guide is divided into the following three main sections.

- Overview of the Toolbox
- Working with the Toolbox
- Customising the Toolbox

Overview of the Toolbox

The Building Skills Toolbox has been designed to allow learners to take an active and constructive role in their own learning.

Three of the four competencies contained in this Toolbox have been contextualised for our target learner group based on the suggestions and experiences of their trainers. The activities revolve around the building and construction of an outdoor kitchen (cookhouse), characteristic of many northern rural locations in Australia.

Note: This context has not been used in the competency ‘Install external or internal doors’.

Each of the four competency standards contains a mixture of Tasks and Skills, which provide learners with demonstrations, practical activities and theoretical content.

Your role as a trainer is to provide adequate educational support for learners using the Toolbox. This guide will give you ideas about how to encourage and support learners during the learning process.

Teaching strategies should be selected to reflect the varying learning needs, educational backgrounds, preferred learning styles of the individual learner, and the specific requirements of each element of the competencies being studied.

The content of this resource is designed to make use of the web environment by using a variety of media. Text based content has been kept to a minimum and visual materials have been included where possible.
Structure of the Toolbox content

There is a consistent structure within the Toolbox, where information is presented as Tasks and Skills. Each Task has a series of Steps that learners work through in a sequential manner. Each Task also has a Have a go! activity that allows the learner to check their understanding of the content. Each competency culminates in a Hands on practical activity set up by you, the trainer. (More information about these activities can be found in the following section of this guide – ‘Working with the Toolbox’.) This Hands on activity has a number of related Checklists that the learner should refer to before beginning the activity.

The Tasks

Each competency consists of a series of Tasks. These Tasks contain the content specific to the competency and show the learner how to complete relevant jobs.

For example, 'Install external or internal doors' is broken down into separate Tasks.

These are:
- Prepare for work
- Measure and check the doorjamb
- Prepare the door
- Construct and install a new internal timber doorjamb
- Install a new steel doorjamb
- Install a split-style pre-hung doorjamb
- Hang a hinged door
- Hang a sliding door
- Fix the architraves
- Furnish the door
- Clean up
The Skills

As learners work through each Task, they can access separate resources that provide information about the specific skill(s) required to complete the job.

Each Skill provides detailed information about a particular activity or area of knowledge relevant to the work. The Skills support the Task or they may be of more general relevance to the content covered in the competency.

Skills covered in the competency standard ‘Install external or internal doors’ include the following.

- Working safely with power tools
- Manual handling
- Using a tape measure
- Using a spirit level

The skills resources, can also be accessed independently through clicking the Skill list link from the menu.

Used in this manner, the skills resources can act as a ‘just in time’ reference for trainers or learners requiring specific information.
Practical activities

A key requirement of competency standards in the General Construction Training Package is that skills and knowledge can be demonstrated through practical activities in a realistic workplace setting.

There are two types of activities in this resource:

1. **Have a go!** activities
2. **Hands on** activities

The **Have a go!** activities are contained in the online resource and may be in the form of:

- multiple choice quizzes
- matching activities.

Each **Have a go!** activity addresses the content contained within a specific Task. This provides learners with an opportunity to test their knowledge of a particular subject area at any stage while working through the Toolbox resource. It is important to note that the **Have a go!** activities are not a comprehensive examination of a learner’s knowledge of a topic. Rather, they should be used to identify gaps in their knowledge so that they can focus their learning on these areas.

There is one **Hands on** practical activity at the end of each competency. You, the trainer, determine this activity. To assist you in designing these activities remember that they should require the learners to *apply* the concepts and processes covered in the tasks of the online resource.

When learners select the **Hands on** activity they will be prompted to download and print a **Job checklist**. Use these checklists in conjunction with the **Hands on** activity you design. These checklists remind learners, at a quick glance, of the steps they need to perform for each task. Learners can tick off each step as they are completed in the practical activity. The checklists can also be used to record their findings from the practical activity and submit the checklist to you for assessment on completion of the activity.

You can modify the **Job checklists** to suit your practical activity if you wish.

Below are some suggested **Hands on** activities to get you started. You may prefer to design your own practical activities, and subsequently provide learners with updated **Job checklists**. These relate to the competency ‘Install external or internal doors’.

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<table>
<thead>
<tr>
<th>Task</th>
<th>Suggested practical activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prepare for work</td>
<td>Set up a work area with the power tools and equipment required for the door installation. Instruct learners to complete the following tasks.</td>
</tr>
<tr>
<td></td>
<td>• Identify and fit the required personal protective equipment (ppe).</td>
</tr>
<tr>
<td></td>
<td>• Identify any potential safety hazards on the worksite.</td>
</tr>
<tr>
<td></td>
<td>• Interpret a variety of common workplace safety signs.</td>
</tr>
<tr>
<td>Measure and check the doorjamb</td>
<td>Arrange access to a worksite containing a pre-installed doorjamb. Instruct learners to complete the following tasks.</td>
</tr>
<tr>
<td></td>
<td>• Check for plumb in two directions.</td>
</tr>
<tr>
<td></td>
<td>• Check the ground surface for square.</td>
</tr>
<tr>
<td></td>
<td>• Measure and record the width and height of the doorjamb using a tape measure.</td>
</tr>
<tr>
<td>Construct and install a new internal</td>
<td>Arrange access to a worksite containing a wall frame prepared for the installation of a doorjamb. The door to be installed should also be provided.</td>
</tr>
<tr>
<td>timber doorjamb</td>
<td>Instruct learners to complete the following tasks.</td>
</tr>
<tr>
<td></td>
<td>• Identify the required size of the doorjamb (taking into account the size of the door, required clearance and floor coverings).</td>
</tr>
<tr>
<td></td>
<td>• Measure the wall thickness and ascertain the size of the timber required for the jamb.</td>
</tr>
<tr>
<td></td>
<td>• Fix the doorjamb using the appropriate fixtures and techniques.</td>
</tr>
<tr>
<td></td>
<td>• Install doorstops to the jamb.</td>
</tr>
</tbody>
</table>
The target audience

The Toolbox is designed to be used for training in the building and construction industry around Australia. While differences in terminology, materials and methods are inevitable across different states and even in different workplaces, the Toolbox tries to take a generic approach. It is hoped that you will use discussions (face to face or online) to give learners an understanding of local equivalents where appropriate.

The learning resources, provided as part of the Building Skills Toolbox, are designed to be used as a part of an overall learning strategy. The resources can be delivered in the workplace, in the classroom or in a combination of both.

Learners

The Building Skills Toolbox was designed to specifically meet the educational needs of Indigenous learners – particularly those studying in remote areas.

The educational strategies employed in the resource were subsequently selected on the basis of their appropriateness to these learners, as suggested by Indigenous trainers.

However, the resource should also be of relevance to all learners studying the four addressed competency standards. Broadly, this may include:

- apprentices commencing the ‘Certificate III in Building & Construction – General qualification’
- apprentices studying core competencies for each specific trade
- apprentices studying various competencies as electives
- secondary school students exploring their vocational opportunities through Vocational Education and Training (VET) in schools and in prevocational programs where learners are unsure of their future career paths
- pre-apprentices preparing to secure an apprenticeship.
Trainers

The Building Skills Toolbox is designed to be a resource that training providers can use to deliver the building and construction competencies. However, you may choose to use the materials as part of a non-recognised training program (for example, as part of professional development).

Your role in the delivery of the competencies may take the form of:

- an on campus TAFE trainer
- a trainer working for a private training provider
- a trainer working in the building and construction industry.

Technical requirements

The minimum hardware requirements for running this product are as follows.

- Pentium III 300 MHz
- 64 MB of SD-RAM
- 800 x 600 display resolution
- 4 GB hard disk
- CD-ROM drive
- 28.8 K modem

OR Macintosh equivalent.

Learners will need to have access to the following software to use the Toolbox:

- Internet Explorer version 5 or Netscape Navigator version 4.7.
- Macromedia Flash 5 Player (available from www.macromedia.com).
- Microsoft Word version 6.0/95 or higher.

If you choose to customise the Toolbox by adding audio and/or video, learners will also need access to the Quicktime plugin (available from <www.apple.com.au/quicktime/download>).
Working with the Toolbox

Before you can begin working with the Toolbox you need to copy all the contents from the CD-ROM provided to you into a folder of your choice. You will want to call this folder by a meaningful name. For example you may call it ‘Equity’ or ‘Building Skills Toolbox’.

To call up the Toolbox double click on the file called default.htm in your browser.

As trainers, you are encouraged to experiment with the Toolbox to find teaching strategies that work best for you and your learners. Here are some suggestions for incorporating the Toolbox resources into your training strategy.

Suggested approaches

**Suggestion 1 - Start with the task**

Work through the steps of a particular task presented in the online resource or ask the learners to do this on their own. This may encourage learners to subsequently investigate skills, through either interest or necessity.

**Suggestion 2 - Start with the skill(s)**

This approach allows learners to investigate the skills and knowledge (S&K) needed before tackling a task. Learners can test their S&K with activities within the resources before proceeding further.

**Suggestion 3 - ‘Just in time’ reference resource**

Learners may also wish to use the Toolbox when it becomes relevant for them.

**Suggestion 4 - Blended strategy**

The resources may be used in a variety of blended approaches, including:

- exploring one or more tasks in a semi-structured fashion
- undertaking a practical activity first and using the content in these resources as a ‘just in time’ reference.
- selecting a skill to reinforce the steps of a task.
Customising the Toolbox

The Toolbox can be customised to meet the specific needs of remote Indigenous learners. A Professional Development Kit has been created and is divided into two sections:

1. Easy customisation
2. Advanced customisation

The Easy customisation section covers how to replace text and images and how to insert audio and video into existing pages.

The Advanced customisation section covers how to add tasks and steps and how to link the steps to skills. A number of templates have already been designed to assist you to do this. To be able to customise the Toolbox in this way requires some HTML knowledge and should only be attempted by those with these skills.

The Professional Development Kit is available in the directory PDkit. Enter it using the index.htm file in that directory.

The name of the templates and a copy of what they look like have been provided to you in Appendix A. This will help you to select which one is the most appropriate to your needs.

A Gallery of photos has also been included to give you the option of replacing photos in the Toolbox. You can find these photos in the directory called _photos. The photos have been placed in their relevant competency directory, for example _photos\doors contains all the photos for the doors competency.
Assessment and alternative approaches

Assessments for the competencies in the Building Skills Toolbox are required to be practical and take place in the workplace or a simulated workplace.

The competencies stipulate that learners ‘shall be assessed while work is undertaken under direct supervision with regular checks, but may include some autonomy when working as part of a team’.

There are a number of ways you can use this resource as part of your assessment strategy. It is possible for you to take each Task or each of the Skills separately as part of the overall assessment. You could allocate practical activities to the learner based on the Job checklist. You could also use the Job checklist for oral questioning of learners with literacy or language difficulties.

The Toolbox competencies

To help you in carrying out student/learner assessments, the Elements and the Performance criteria of each competency, and where you can find these covered in the Toolbox, has been provided. Refer to Appendix B – The Toolbox competencies for a complete list.

The content of the Toolbox lies mainly in the Tasks therefore the Task name will be detailed.
Putting together a learning program

Your role as trainer is the key to providing adequate learning support. The learning activities in this online resource will assist the learning process and may prompt more ideas from you about how to extend that learning. The learner is not required to complete tasks in order although you may wish to direct them to do so if you feel it is important. You may like to vary activities to make them more specific to the learners. The decision is yours. Be as creative as you wish. This resource is there to serve you, not restrict you.

When designing a learning program keep in mind that different people learn in different ways. Some people like to work alone, while others prefer to work in groups. Some like to read and digest information before they begin a practical activity, whilst others like to get ‘stuck into’ the activity and refer to the content when they feel they need it.

The Toolbox materials are not intended to:

- be used in isolation without practical or workplace based activities
- restrict training providers to using the materials in their entirety
- replace the role of the trainer in the learning process
- stipulate assessment approaches.
Appendix A  Toolbox templates

Name of template:  custom_templates\step_template\step\step_template_1.htm

Purpose:  Adding a new page with text and graphics.

---

Type your heading here

This template is best suited to a page within a task which includes text and photos. Replace the text and images on this page with your own. If you need help with inserting images, refer to the section of the PD kit 'Inserting your own image into a screen'.

A complex task is best broken down into steps. The first step is called 'Before you begin' and introduces the overall task, outlining its purpose and application. This helps to engage the learners as it gives them a reason to continue, and directs their thinking as they start working through the steps.

The number of steps will vary from one task to another, but generally they follow the procedure of the task in the order it is carried out. In that way, the process is summarised by the names given to the steps.

A step within a task can be broken down even further into smaller chunks or substeps. Try to limit the number of these on one page. At the same time, however, if they logically go together, keep them together.

If you wish to use audio or video, look at step_template_audio and step_template_video, which have been set up to make it easier for you to include these.

---

Skills you should have...

For each step of your task, consider which skills from the existing skills list will be needed by learners to complete this step, and provide links to these skills.

When all steps have been completed, list all skills in all the steps in this box on the 'Before you begin' page.
Name of template: custom_templates\step_template\step\step_template_audio.htm

Purpose: Adding a new page with audio (as well as text and graphics).

Type the name of the task here

Template for screen with audio - replace this heading with your own

This template helps you include audio. You might want to do this:

- to assist learners who have literacy problems (so listening may be easier than reading)
- so you can present material in another language.

You may want to tell the learner that audio is available and how to access it. For example: 'Click the play button (the triangle pointing to the right) to have this screen read out loud.'

If you need help with inserting audio into this template, see the section in the PD kit 'Inserting audio'.

**Embed mp3**

If the audio you are using is in an mp3 file, here is where it goes and the 'embed wav' section below can be deleted.

***end of embed mp3 section *****

**Embed wav**

If the audio you are using is in a wav file, here is where it goes and the 'embed mp3' section above can be deleted.

***end of embed wav section *****

Replace the text and images on this page with your own. Text in this case should probably duplicate the audio, so that learners have the choice of reading the text themselves, hearing it read out loud, or hearing it as they read it.

If you need help with inserting images, refer to the section of the PD kit 'Inserting your own image into a screen'.
Name of template: custom_templates\step_template\step\step_template_video.htm

Purpose: Adding a new page with video.

Type the name of the task here

Template for screen with video - replace this heading with your own

This template helps you include video. Video can be very useful for demonstrating a process. It has the advantage over a ‘live’ demonstration that the learner can replay it to watch it as many times as they like.

There is unlikely to be a lot of text on a page that uses video. A brief introduction before the video is useful to help learners ‘tune in’ to what they are about to see, and give them an idea of what to focus on.

You may wish to prompt the learner on how to play the video. For example: ‘Click the play button (the triangle pointing to the left) to see the video.’

Skills you should have...

For each step of your task, consider which skills from the existing skills list will be needed by learners to complete this step, and provide links to these skills.

When all steps have been completed, list all skills in all the steps in this box on the ‘Before you begin’ page.

Some text following the video may be useful for drawing conclusions from what they have seen. It would be inadvisable, however, to include pictures on a page that includes video.

If the video includes audio, be aware that use of audio on several computers in the same room at the same time can create problems. Different computers playing different audio at the same time can make it difficult for learners to tune in to what they want to hear. Use of headphones is one option in this situation.

If you need help with inserting video into this template, see the section in the PD kit 'Inserting video'.