

BUILDING and **CONSTRUCTION** **TOOLBOX**



Building and Construction Toolbox Trainer's Guide

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Introduction

Welcome to the Trainer's Guide for the Building and Construction Toolbox. This product is part of the Toolbox Series 4 and is a web based online learning support. It is funded by the Australian National Training Authority (ANTA). The Building and Construction Toolbox is specifically designed to deliver vocational skills.

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

What is the Building and Construction Toolbox?

Essentially, this product is designed along the guidelines as the National Toolbox Series of flexible learning resources. The main component of a toolbox is a collection of learning materials designed for online delivery.

The learning resources in this product are based on eight entry level competencies for the General Construction Training Package. The elements in these competencies are to be embedded within new competencies towards the end of 2002. Seven of the eight current competencies provide a basic introduction to the specific trade. The eighth competency relates to workplace communication and is relevant to all trades. This toolbox is based on the following current competencies.

- BCG1000A – Carry out interactive workplace communication.
- BCG1012A – Prepare for construction processes (wall and floor tiling).
- BCG1013A – Prepare for construction processes (solid plastering).
- BCG1014A – Prepare for construction processes (dry wall plastering).
- BCG1015A – Prepare for construction processes (brick/block laying).
- BCG1016A – Prepare for construction processes (carpentry).
- BCG1017A – Prepare for construction processes (demolition).
- BCG1019A – Prepare for construction processes (painting and decorating)



Details of these competencies are given in the Appendix of this Trainer's Guide, together with a list of the proposed new competencies that these are likely to map to. When the new competencies become available, trainers may wish to map the sections of this resource to the revised Training Package.

All files of the Building and Construction Toolbox are located on the CD-ROM that accompanies this guide, along with all necessary software and installation guidelines. You may require assistance from your organisation's computer support service to install these files.

What is in this guide?

This guide is specific to the competencies provided in the Building and Construction Toolbox. It describes the intentions of the various competencies and provides notes on delivery implications.

This Trainer's Guide is divided into four main sections.

- Overview of the Building and Construction Toolbox.
- About the resources of the toolbox.
- Working with the toolbox.
- Appendix: The existing competencies.

The general overview provides you with information about the resource as a whole. It describes:

- the target audience
- how the toolbox is organised
- the organising structure and key features
- practical work requirements
- the assessment approach
- advice for putting together a learning program
- the customisation methods available.



The section about resources of the toolbox provides details about:

- special features of the resource
- a guide to the different parts of the resource.

The section about working with the toolbox provides suggestions for trainers using the toolbox, including:

- suggested approaches
- ideas for discussions
- practical requirements
- assessment and alternative approaches.

The last section is about the competencies in detail, and provides information about:

- how the existing competencies are likely to map to the new competencies
- the elements and performance criteria for each competency
- prerequisites (if any) for each competency
- context of assessment.

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 available hard drive.
- 8 x CD-ROM.
- 28.8 K modem.



OR

- Macintosh equivalent.

Learners will need to have access to the following software to use the product.

- Internet Explorer version 5 or Netscape Navigator version 4.7.
- Adobe Acrobat Reader 5.
- Macromedia Flash 5 Player.

Adobe Acrobat Reader can be downloaded from www.adobe.com.

Macromedia Flash 5 Player can be downloaded from www.macromedia.com/downloads.



Overview of the Building and Construction Toolbox

The different sections of the Building and Construction Toolbox have been designed to allow learners to take an active and constructive role in their own learning. Each section relates to a specific trade area except for the section on communication, which deals with generic skills common to all trade areas. Each section contains a mixture of jobs and resources.

	Each job provides learners with opportunities to integrate their knowledge and problem solving skills within realistic workplace scenarios.
 Take a quiz	Some jobs also contain a self assessment tool.
  	Learners are presented with a specific task, with relevant background information provided.
Resources	They are given links to relevant resources (learning objects) to help them find a solution to task or to find information.
	Self assessment tools (activities) and the downloadable 'Job checklists' (to be submitted to the trainer) allow learning to be tested.

Jobs can be customised by the trainer, or designed using the template included in the resource. This will be discussed further in the section 'Customising the jobs'.



Your role as trainer is the key to providing adequate learning support. The learning activities together with 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 and 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.

The target audience

The competencies in this resource form part of Certificates I, II and III for the General Construction National Training Package. They do not seek to give comprehensive coverage of the skills and knowledge for each trade. Rather they are meant as an **introduction** to each of the trades covered.

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 trainers will use discussions (face to face or online) to give learners an understanding of local equivalents where appropriate.

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



Learners

It is impossible to isolate one specific group of learners who will access the Building and Construction Toolbox resources. Broadly, the group of learners will include:

- apprentices commencing the Certificate III in Building and 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
- preapprentices preparing to secure an apprenticeship.

Trainers

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

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

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



How are the toolbox materials organised?

The jobs

The toolbox materials are presented as jobs at various building sites. Learners can choose to access jobs to do with the trade they are studying, or choose to access learning objects (resources) to learn the skills and underpinning knowledge needed to complete each job.

The table below gives a complete list of the jobs in this toolbox and the trades they relate to.

Related trade area	Jobs
Communication	Setting up the mixing area. Checking the delivery docket. Communicating effectively. Putting up signs.
Wall and floor tiling	Preparing to tile a timber floor. Preparing to tile a concrete wall.
Solid plastering	Rendering concrete walls. Rendering bathroom walls. Rendering the garage.



Related trade area	Jobs
Dry wall plastering	Setting up for the plasterers. Finishing off and cleaning up. Working out what plaster to use.
Brick/block laying	Preparing the way for brick/block laying. Mixing mortar. Helping the bricklayers and cleaning up.
Carpentry	Handling and storing timber. Selecting and cutting components. Assembling a partition and cleaning up.
Demolition	Removing a window from a brick wall. Demolishing a kitchen and verandah. Preparing to demolish a house.
Painting and decorating	Choosing materials and preparing the work area. Preparing the surfaces. Applying the first coats.

Each job should provide learners with a purpose and structure for their learning.

The jobs can be customised by the trainer. The toolbox also includes a template in which trainers can design their own jobs according to their learner's needs. Further notes on customising are provided later in this guide in the section 'Using the job template'.

Each job has direct links to relevant learning objects (Resources).



The learning objects (Resources)

The content in this toolbox is organised into learning objects, which can be used as stand-alone learning resources, or which can be combined in different ways with other learning objects when a different learning outcome is required. This makes the content more flexible and able to be reused in different contexts.

The learning objects in this toolbox are of two types – trade specific and generic. These learning objects can be used in any way the trainer wishes to reinforce learning. The relationship between these learning objects and the different trade areas is shown in the following table.

Trade areas	Trade specific learning objects	Generic learning objects
Wall and floor tiling	Materials for tiling Working with tiles	Communicating Signage Occupational health and safety Personal protective equipment Tools
Solid plastering	Materials for solid plastering Working with plaster and mortar	
Dry wall plastering	Materials for dry wall plastering Working with dry wall plaster	
Brick and block laying	Materials for brick/block laying Working with bricks and mortar	
Carpentry	Materials for carpentry Working with timber	
Demolition	Demolition	
Painting and decorating	Materials for painting Working with paint	



To access all the learning objects, click:

-  on the home screen

OR

-  along the top of any of the job screens.

What are the practical work requirements?

The Building and Construction Toolbox focuses on the skills, strategies, behaviours and attitudes needed to prepare for jobs within the building and construction field. The content is delivered in a way that will prompt learners to develop and test their knowledge and provide opportunities that allow learners to communicate with fellow learners and the trainer. Some activities encourage learners to work collaboratively with other learners to develop skills and increase experiential learning.

An online resource like this toolbox does not claim to be able to cover all aspects of competencies relating to trades. Clearly, while it can cover the theory required to work in these trades and the underpinning knowledge for completing practical tasks, the actual skills themselves require hands on practice with appropriate tools and materials. Such skills need to be learned and assessed in the workplace or in a simulated workplace environment.

What assessment approaches have been used?

Assessments for the competencies in the Building and Construction Training Package are required to be practical and to take place in the learning environment or workplace. That is, assessment will need to be conducted 'on the job' or in a realistic simulated workplace setting.



As a rough guideline, trainers should incorporate the use of holistic and work centred assessment and this could mean that:

- learners may need to complete a number of competencies before they are ready to be assessed
- the assessment task(s) must include a practical demonstration of skills and knowledge and may therefore be concurrent with a number of competencies
- evidence of competence may be built up through participating in a number of competencies
- learners may negotiate an assessment task that reflects their particular work situation.

How do I put together a learning program?

The Building and Construction Toolbox contains a library of online learning resources that can be used in web based delivery of the specialist units of competence. The competencies are platform independent, in that they can be used with any delivery platform such as WebCT, Top Class or the TAFE Virtual Campus.

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.

It is expected that trainers will want to select the learning objects and jobs most relevant to their learners' needs and their own teaching styles. Trainers may wish to:

- determine the order of presentation
- substitute or add their own materials
- provide additional jobs.



Customising the jobs

Trainers are encouraged to use the job templates provided to design their own learner activities.

The templates have been provided in HTML (Hyper Text Markup Language) format. If trainers do not have knowledge of HTML to edit, then a WYSIWYG (What You See Is What You Get) HTML editor can help. WYSIWYG editors work more like word processors and knowledge of HTML code is not required.

Common HTML editors of this type include:

- Microsoft FrontPage
- Adobe GoLive
- Macromedia Dreamweaver.

Trainers who do not have access to these programs may be able to get help from their IT department. Otherwise trial versions and freeware equivalents are available from sites such as:

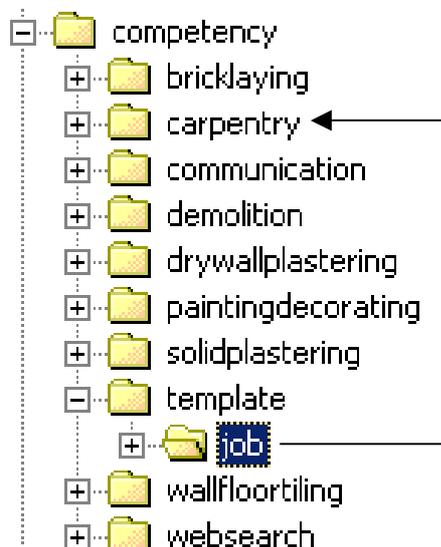
- <http://www.download.com>
- <http://www.tucows.com>



Using the job template

If you are working from the CD, you will need to start by copying all the files from the CD onto your hard drive.

In the folder called 'competency', you will find a folder called 'template'. From the 'template' folder, copy the 'job' folder into the 'competency' folder in which you want the new job (eg carpentry) to be placed.



Rename this copied folder 'job4' (or 'job5' or whatever the next job number is).

In this copied job folder, changes need to be made to the files shown in the table below.



Name of file	What you need to enter
job.htm	<ul style="list-style-type: none">• The name of the job (for the screen heading).• Details of the background for the job.• Task details (what the learner has to actually do).• The name of the file with the job checklist. This is a file in Portable Document Format (PDF). <p>You need to save the job checklist for the job as a PDF file in the subfolder 'Download'.</p> <p>You also need to delete the resources you do not wish to include.</p>
site.htm	<ul style="list-style-type: none">• The site details for your job.
super.htm	<ul style="list-style-type: none">• The Site Supervisor's instructions for the job.
weather.htm	<ul style="list-style-type: none">• Any weather details.
checkpoint.htm	<ul style="list-style-type: none">• The name of your quiz.• The quiz itself. <p>You might like to use a quiz engine such as 'Hot Potatoes' or 'Course Builder for Dreamweaver' to build your quiz.</p> <p>If you have no quiz, you can simply delete the icon or enter the text 'There is no quiz for this job'.</p>



Also, in the folder for the trade for which you have designed the job (eg \competency\carpentry), you need to update the file shown below to include a link to your new job.

Name of file	What you need to enter
_left.htm	Enter the name of your job. You will need to link this to job.htm in the folder 'job4' (or whatever you have called it). You will also need to link the image  (tri.gif) to this file.

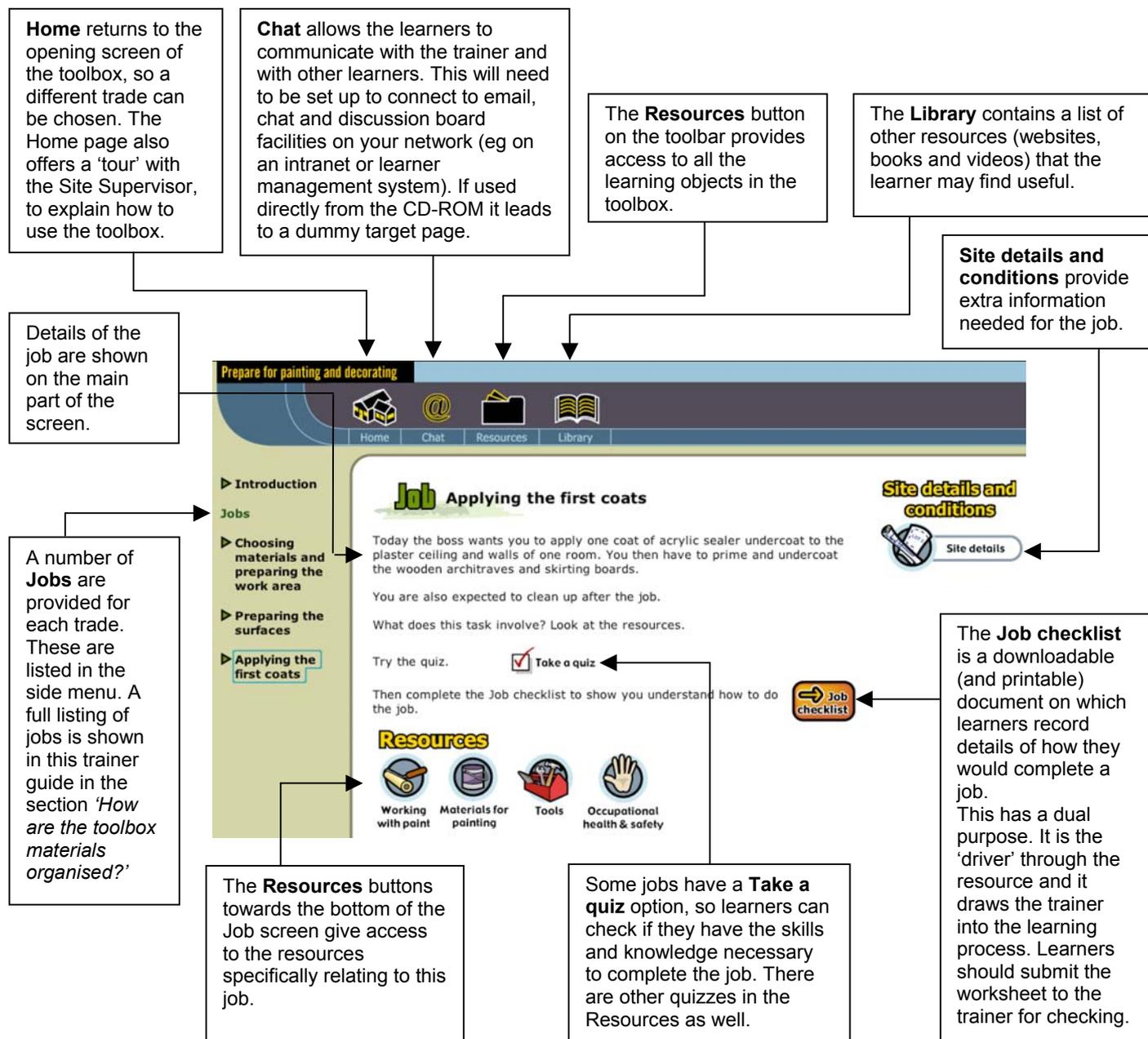
About the resources of the toolbox

Special features of the resource

The resource uses a constructivist approach allowing the learner to explore the resource by navigating through the index of jobs, or the index of learning objects (Resources). The learner is not lock-stepped at any point. The trainer may choose to direct the learner to one of the specific jobs provided, or one which the trainer has altered or created for their own learners. The cross referencing between the jobs and the learning objects achieves complete integration of the resource, so that the underpinning knowledge and skills are also covered in an integrated fashion.



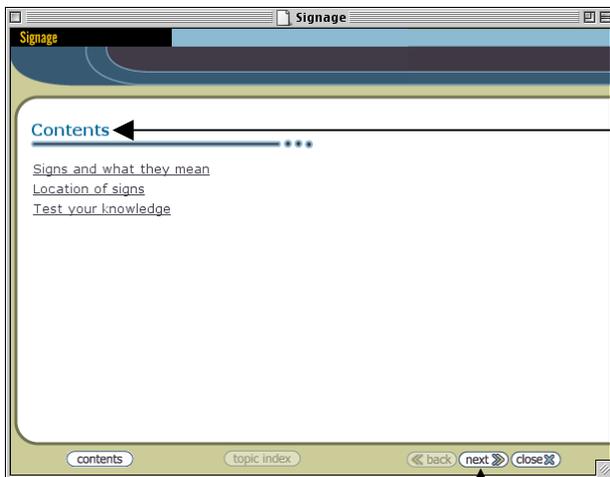
Using the toolbox





Resources - sequential or targeted access

Any part of a resource can be accessed from the 'contents' and 'topic index' screens. Alternatively, a resource can be worked through sequentially from start to finish using the  button.



Use the **Contents** to go straight to a section which has the information you want.

or

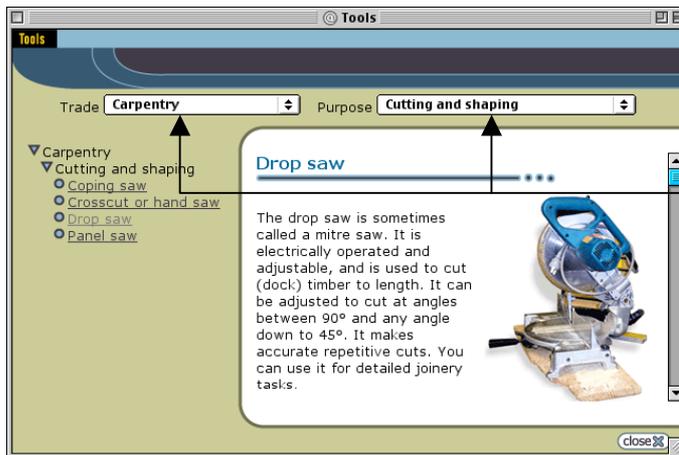
Use the  button to work through the resource from start to finish.



The tools resource

Tools

The generic learning object 'Tools' lists over 100 different tools with an illustration and a brief description of what the tool is used for. Learners can access all the tools in the resource, tools specific to a particular trade area or tools used for a particular purpose (eg cutting and shaping). A full alphabetic listing of all tools can be seen by selecting 'None' for both 'Trade' and 'Purpose'.



Use the 'filters' to sort the tools by Trade, Purpose or both.

To sort all tools into alphabetical order, choose 'None' for both Trade and Purpose.



Working with the toolbox

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 job

The **Job** triggers interest in the resources, giving learners a reason to explore targeted areas of learning.

Select a **Job** for learners to do. Discuss the job with them.

Check out the **Site details and conditions** and print out the  to see what's required.



Work through each of the **Resources** for the Job.



If there is a  Take a quiz on the **Job** screen, try it.

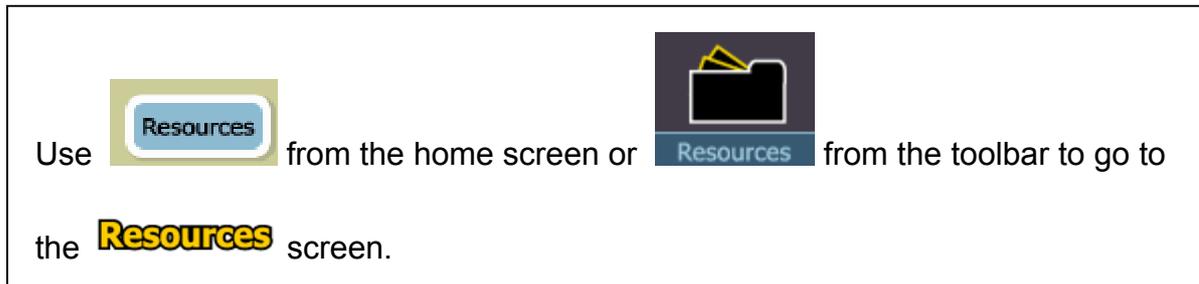


Try to complete the  .
Look back over any parts of the **Resources** as needed.



Suggestion 2 – Start with the resource(s)

This approach allows learners to construct learning first before tackling a job. Learners can test their knowledge with activities within the resources before proceeding further.



From the **Resources** screen, choose the resource(s) you want the learners to work through.



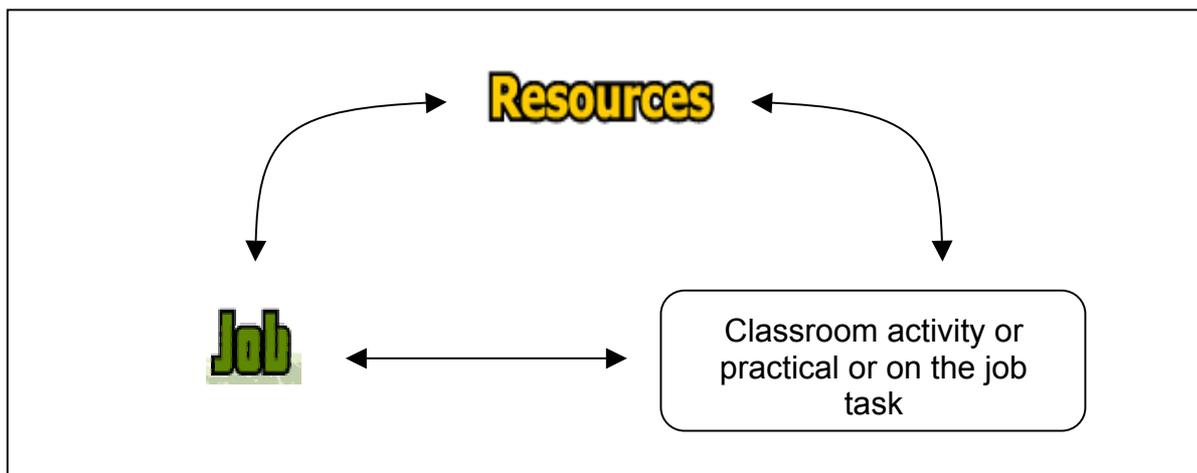
Use the **Jobs** in the toolbox or your own jobs to apply what they have learned.



Suggestion 3 - Blended strategy

This approach involves the learner:

- exploring one or more **Resources**
- undertaking a classroom activity, practical or on the job task
- selecting a **Job** to reinforce the previous steps
- accessing the **Resources** again to review and check their knowledge.





Ideas for discussion points

The following list provides some ideas for discussion that could be included as part of each learning activity. These could be used in face to face class work or made available as online chat or by email.

General discussion (all trades)

Discuss the different types of materials used in your state and why these are used.

What are some of the names of companies that supply the materials for your trade area? Students could use a search engine on the Internet to find information about these companies and their products. Several search engine websites are listed in the 'How to search the web' section of the 'Library'.

Communication

- What kinds of communication specific to your trade area might be relevant on a building site?

Wall and floor tiling

- Where have you seen tiles in buildings? Why do you think they are used there?
- In what circumstances do you use different types of tile cutting tools?
- If you are cutting a tile and it keeps breaking, what might the problem be?
- What should you do if there is vinyl stuck to the floor on which you need to lay tiles?
- Could you use wall tiles on the floor?
- What factors contribute to making a tiling job a high quality job?
- What are some of the occupational health and safety issues that wall and floor tilers need to be aware of?



Solid plastering

- How do you make sure a mix is right?
- How do you make sure a background is right?
- What factors contribute to making a solid plastering job a high quality job?
- What are some of the occupational health and safety issues that solid plasterers need to be aware of?

Dry wall plastering

- What factors contribute to making a dry wall plastering job a high quality job?
- What are some of the occupational health and safety issues that dry wall plasterers need to be aware of?
- What kinds of personal protective equipment (PPE) are important for dry wall plasterers, and why?

Brick/block laying

- Why do we build with brick?
- Why are some walls made of brick, while others are concrete or plaster on timber frame?
- What factors contribute to making a brick or block laying job a high quality job?
- What are some of the occupational health and safety issues that bricklayers need to be aware of?

Carpentry

- What factors contribute to making a carpentry job a high quality job?
- What are some of the occupational health and safety issues that carpenters need to be aware of?
- What differences might there be between erecting a partition in a domestic house and a multi-storey office block?



Demolition

- What are some of the occupational health and safety issues that you need to be aware of when demolishing a building or part of a building?
- What kinds of PPE are important for someone demolishing a building? When would each type of PPE be used, and why?
- What communication issues arise during a demolition job that might not arise during other kinds of jobs in building and construction?

Painting and decorating

- What factors contribute to making a painting job a high quality job?
- What are some of the occupational health and safety issues that painters and decorators need to be aware of?
- What effects can the weather have on a painting job?

Practical requirements

The resource is designed to provide a theoretical basis for the practical activities that must take place either within the workplace or in a simulated work environment.

The knowledge gained by learners studying the material and completing the online activities should allow the learner to be able to apply this knowledge in a practical situation.

Assessment and alternative approaches

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.'

It is possible for the trainer to take each 'job' or each of the 'resources' separately as part of the overall assessment. The trainer may also allocate practical tasks to the learner based on the 'job checklist'.



Resources

The resources could also be used as a basis for:

- identification tasks eg tools
- classroom or online discussion
- local research eg different materials and methods within different states of Australia
- field trip eg to manufacturers of materials
- the practical tasks as required by the competencies, in particular use of hand and power tools
- role plays eg communication, understanding supervisor's instructions.



The job checklist could be used by the trainer for oral questioning of learners with literacy or language difficulties.



Appendix: The existing competencies

In late 2002, new competencies are expected to be endorsed for the trade areas covered in this toolbox. With this in mind, the resources in this toolbox have been developed for each trade area to reflect the underpinning knowledge which will still be covered in the new competencies.

As an indication, the current competencies are likely to map into new competencies as detailed below.

Current competencies (August 2000)	New competencies
BCG1000A – Carry out interactive workplace communication	BCG1000B – Perform interactive workplace procedures
BCG1012A – Prepare for construction process (wall and floor tiling)	BCG1007B – Handle wall and floor tiling materials BCG1021B – Use wall and floor tiling tools and equipment BCG3042B – Prepare surfaces for tiling application
BCG1013A – Prepare for construction process (solid plastering)	BCG1004B – Handle solid plastering materials BCG1018B – Use solid plastering tools and equipment BCG3053B – Prepare surfaces for solid plaster



Current competencies (August 2000)	New competencies
BCG1014A – Prepare for construction process (dry wall plastering)	BCG1014B – Handle wall and ceiling lining materials BCG1017B – Use wall and ceiling lining tools and equipment BCG3008B – Install plasterboard and paperface cornice
BCG1015A – Prepare for construction processes (brick/block laying)	BCG1008B – Handle bricklaying/block laying materials BCG1022B – Use bricklaying/block laying tools and equipment BCG3110B – Lay brick and blocks (wall and corner)
BCG1016A – Prepare for construction process (carpentry)	BCG1003B – Handle carpentry materials BCG1016B – Use carpentry tools and equipment



Current competencies (August 2000)	New competencies
BCG1019A – Prepare for construction process (painting and decorating)	BCG1005B – Handle painting and decorating materials BCG1019B – Use painting and decorating tools and equipment BCG3096B – Apply paint by brush/roller BCG3100B – Prepare surfaces for painting and decorating
BCG1017A – Prepare for construction process (demolition)	Currently under review.



Other new competencies for which the resources in this toolbox may be relevant for are:

- BCG1028B – Handle construction materials
- BCG1029B – Use construction tools and equipment
- BCG1001B – Identify OH&S procedures.

Note

At the time of publication of the toolbox, details of the new competencies had not been finalised. The above table is a 'best guess', based on advice from Construction Training Australia, the National Industry Training Advisory Board (ITAB).

Details of the existing competencies are given on the following pages.



BCG1000A – Carry out interactive workplace communication

Element of competency	Performance criteria
1 Receive and convey information	1.1 Verbal/written instructions received and responded to with correct actions. 1.2 Instructions conveyed and work signage responded to with correct action. 1.3 Information conveyed in simple English so that messages are understood.
2 Carry out face-to-face routine communication	2.1 Routine instructions, messages and schedules are given or followed. 2.2 Workplace procedures carried out to company or supervisor's laid down procedures. 2.3 Relevant information assessed and analysed from a range of sources. 2.4 Information selected and sequenced correctly.
3 Work with others	3.1 Suggestions and information provided relevant to planning/conduct of activities. 3.2 Communication carried out clearly, concisely and effectively so messages are understood.
4 Participate in simple on-site meeting processes	4.1 Correct process for on-site meetings carried out to predetermined or agreed procedures. 4.2 Negotiations conducted to achieve a constructive outcome.



Competency is to be demonstrated by the effective use of methods of communication relating to instructions, information sources and meeting procedures listed within the range of variables statement relevant to the work orientation.

Context of assessment

Competency shall be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.



BCG1012A – Prepare for construction process (wall and floor tiling)

Element of competency	Performance criteria
1 Plan for the construction process	<ul style="list-style-type: none">1.1 Quality assurance requirements of company's construction operations recognised and adhered to.1.2 Preparation and planning requirements identified from drawings/work location and/or supervisor's instructions.1.3 OH&S requirements identified and adhered to in accordance with application tasks and workplace environment.1.4 Safety hazards identified and correct procedures adopted to minimise risk to self and others.1.5 Materials selected to supervisor's instructions and safely handled and stored/located ready for application.1.6 Appropriate personal protective equipment selected, correctly fitted and used.1.7 Tools and equipment selected consistent with the job requirements, checked for serviceability and any faults reported to supervisor.1.8 Fixing/fasteners selected consistent with job requirements, where applicable, and checked for serviceability.



Element of competency	Performance criteria
2 Prepare materials selected for construction process	<p>2.1 Activities for material preparation identified from specifications or supervisor's instructions.</p> <p>2.2 Material preparation carried out to satisfy requirements of application process.</p>
3 Prepare work area suitable for construction process	<p>3.1 Activities to be carried out in work area identified from type of tile, surface to be covered, method of application and access to surface.</p> <p>3.2 Work area prepared for the application process to specifications or supervisor's instructions.</p>
4 Use tools, plant and equipment appropriate for construction process	<p>4.1 Regular hand and power tools suitable for application process identified to job requirements.</p> <p>4.2 Hand and power tools used safely and effectively to carry out processes.</p>
5 Prepare underlay/sheeting for floor and walls	<p>5.1 Assistance with underlay preparation provided under instructions and supervision.</p> <p>5.2 Surface finished flat/level with joints flush and sealed.</p>



Element of competency	Performance criteria
<p>6 Prepare background of brick, concrete or blockwork for solid plastering</p>	<p>6.1 Structure identified and surface wire brushed to remove loose material and holes. Depressions and gaps filled with suitable patching material to supervisor's instructions.</p> <p>6.2 Materials for splash coat proportioned and mixed to instructions ready for application to wet surface.</p>
<p>7 Prepare render surface for tiling</p>	<p>7.1 Horizontal/vertical surrounds prepared for tiling process in accordance with type of tile and specified finish, where applicable.</p> <p>7.2 Materials for render coat proportioned and mixed to instructions ready for application.</p> <p>7.3 Rendered surface scratched and dried to instructions in accordance with specifications.</p>
<p>8 Clean up</p>	<p>8.1 Materials stacked/stored for reuse or disposal.</p> <p>8.2 Work area cleared.</p> <p>8.3 Tools and equipment cleaned, maintained and stored.</p> <p>8.4 Waste disposed of using appropriate method to EPA requirements.</p>



Competency is to be demonstrated by carrying out the safe and effective preparation for tiling applications in accordance with the performance criteria using any of the processes and range of materials listed within the range of variables statement.

Prerequisite relationship of units

Prerequisites in this unit are:

- BCG1001A – Carry out OH&S requirements
- BCG1005A – Use hand and power tools
- BCG1006A – Use small plant and equipment.

Context of assessment

Competency shall be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.



BCG1013A – Prepare for construction process (solid plastering)

Element of competency	Performance criteria
1 Plan for construction process	<ul style="list-style-type: none">1.1 Quality assurance requirements of company's construction operations recognised and adhered to.1.2 Preparation and planning requirements identified from drawings/work location and/or supervisor's instructions.1.3 OH&S requirements identified and adhered to in accordance with application tasks and workplace environment.1.4 Safety hazards identified and correct procedures adopted to minimise risk to self and others.1.5 Materials selected to supervisor's instructions safely handled and stored/located ready for application.1.6 Appropriate personal protective equipment selected, correctly fitted and used.1.7 Tools and equipment selected consistent with the job requirements, checked for serviceability and any faults reported to supervisor.1.8 Fixing/fasteners selected consistent with the job requirements where applicable and checked for serviceability.



Element of competency	Performance criteria
2 Prepare materials selected for construction process	2.1 Activities for material preparation identified from specifications or supervisor's instructions. 2.2 Material preparation carried out to satisfy requirements of application process.
3 Prepare work area suitable for construction process	3.1 Activities to be carried out in work area identified from surface to be covered, method of application and access to surface. 3.2 Work area prepared for construction process to supervisor's instructions.
4 Use tools, plant and equipment appropriate for construction process	4.1 Regular hand and power tools suitable for application process identified to job requirements. 4.2 Hand and power tools used safely and effectively to carry out processes where applicable.



Element of competency	Performance criteria
5 Prepare background of brick, concrete or blockwork for solid plastering	<p>5.1 Structure identified and surface wire brushed to remove loose material and holes. Depressions patched with suitable material to supervisor's instructions.</p> <p>5.2 Materials for splash coat proportioned and mixed to instructions ready for application to wet surface.</p>
6 Clean up	<p>6.1 Materials stacked/stored for reuse or disposal.</p> <p>6.2 Work area cleared.</p> <p>6.3 Tools and equipment cleaned, maintained and stored.</p>

Competency is to be demonstrated by carrying out the safe and effective preparation for solid plastering applications in accordance with performance criteria using any of the range of materials and processes listed within the range of variables statement.

Prerequisite relationship of units

Prerequisites in this unit are:

- BCG1001A – Carry out OH&S requirements
- BCG1005A – Use hand and power tools
- BCG1006A – Use small plant and equipment
- BCG1007A – Erect and dismantle restricted height scaffolding.

Context of assessment

Competency shall be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.



BCG1014A – Prepare for construction process (dry wall plastering)

Element of competency	Performance criteria
1 Plan for construction process	<ul style="list-style-type: none">1.1 Quality assurance requirements of company's construction operations recognised and adhered to.1.2 Preparation and planning requirements identified from drawings/work location and/or supervisor's instructions.1.3 OH&S requirements identified and adhered to in accordance with application tasks and workplace environment.1.4 Safety hazards identified and correct procedures adopted to minimise risk to self and others.1.5 Materials selected to supervisor's instructions, safely handled and stored/located ready for application.1.6 Appropriate personal protective equipment selected, correctly fitted and used.1.7 Tools and equipment selected consistent with the job requirements, checked for serviceability and any faults reported to supervisor.1.8 Fixing/fasteners selected consistent with job requirements and checked for serviceability.



Element of competency	Performance criteria
2 Prepare materials selected for construction process	<p>2.1 Activities for material preparation identified from specifications or supervisor's instructions.</p> <p>2.2 Fasteners/fixing prepared for installation to instruction.</p> <p>2.3 Material preparation carried out to satisfy requirements of construction process.</p>
3 Prepare work area suitable for construction process	<p>3.1 Activities to be carried out in work area identified from surfaces to be lined and height to be accessed.</p> <p>3.2 Work area prepared for construction process to supervisor's instructions.</p>
4 Use tools, plant and equipment appropriate for construction process	<p>4.1 Regular hand and power tools suitable for application process identified to job requirements.</p> <p>4.2 Hand and power tools used safely and effectively to carry out processes.</p>



Element of competency	Performance criteria
5 Assist with sheet material installation	<p>5.1 Sheet materials identified from stack and safely distributed to required location.</p> <p>5.2 Assistance provided with cutting sheets to job requirements.</p> <p>5.3 Assistance provided with placing and fixing sheets to job requirements.</p>
6 Clean up	<p>6.1 Materials stacked/stored for reuse or removal.</p> <p>6.2 Work area cleared.</p> <p>6.3 Tools and equipment cleaned, maintained and stored.</p> <p>6.4 Waste disposed of using appropriate method to EPA requirements.</p>

Competency is to be demonstrated by carrying out the safe and effective preparation for dry wall plastering application in accordance with the performance criteria using any of the range of materials and processes listed within the range of variables statement.

Prerequisite relationship of units

Prerequisites for this unit are:

- BCG1001A – Carry out OH&S requirements
- BCG1005A – Use hand and power tools
- BCG1006A – Use small plant and equipment.

Context of assessment

Competency shall be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.



BCG1015A – Prepare for construction process (brick/block laying)

Element of competency	Performance criteria
1 Plan for construction process	<ul style="list-style-type: none">1.1 Quality assurance requirements of company's construction operations recognised and adhered to1.2 Job requirements identified from drawings and supervisor's instructions.1.3 OH&S requirements identified and adhered to in accordance with application tasks and workplace environment.1.4 Safety hazards identified and correct procedures adopted to minimise risk to self and others.1.5 Materials selected to supervisor's instructions, safely handled and stored/located ready for application.1.6 Appropriate personal protective equipment selected, correctly fitted and used.1.7 Tools and equipment selected consistent with job requirements, checked for serviceability and any faults reported to supervisor.



Element of competency	Performance criteria
<p>2 Prepare materials selected for construction process</p>	<p>2.1 Activities for material preparation identified from specifications or supervisor's instructions.</p> <p>2.2 Material preparation carried out to satisfy requirements of construction process.</p> <p>2.3 Correct manual handling techniques used to move materials to location of placement.</p> <p>2.4 Components distributed and stacked to suit job location and construction sequence.</p>
<p>3 Prepare work area suitable for construction process</p>	<p>3.1 Activities to be carried out in work area identified from type of brick/block, planned layout of construction and access to brick/block laying location.</p> <p>3.2 Work area prepared for construction process to supervisor's instructions.</p>
<p>4 Use tools, plant and equipment appropriate for construction process</p>	<p>4.1 Regular hand and power tools suitable for application process identified to job requirements.</p> <p>4.2 Hand and power tools used safely and effectively to carry out processes.</p>



Element of competency	Performance criteria
5 Mortar mix	<p>5.1 Materials for mortar selected to instruction.</p> <p>5.2 Additives for mortar selected to mix requirements.</p> <p>5.3 Specified proportions of materials for mortar mixture mixed accurately to instruction</p> <p>5.4 Mortar materials mixed to a workable consistency.</p>
6 Assist with brick/block work	<p>6.1 Bricks/blocks selected, visually checked to ensure specification met including colour matching surrounding area and distributed to location.</p> <p>6.2 Surface brushed/scraped/washed clean of surplus mortar material on completion of laying process.</p>
7 Clean up	<p>7.1 Materials stacked/stored for reuse or removal.</p> <p>7.2 Work area cleared.</p> <p>7.3 Tools and equipment cleaned, maintained and stored.</p> <p>7.4 Waste disposed of using appropriate method to EPA requirements.</p>



Competency is to be demonstrated by carrying out the safe and effective preparation for the laying of bricks/blocks in accordance with the performance criteria using any of the listed range of variables with either brickwork or blockwork.

Prerequisite relationship of units

Prerequisites for this unit are:

- BCG1001A – Carry out OH&S requirements
- BCG1005A – Use hand and power tools
- BCG1006A – Use small plant and equipment
- BCG1007A – Erect and dismantle restricted height scaffolding.

Context of assessment

Competency shall be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.



BCG1016A – Prepare for construction process (carpentry)

Element of competency	Performance criteria
1 Plan for construction process	<ul style="list-style-type: none">1.1 Quality assurance requirements of company's construction operations recognised and adhered to.1.2 Preparation and planning requirements identified from drawings and/or supervisor's instructions.1.3 OH&S requirements identified and adhered to in accordance with application tasks and workplace environment.1.4 Safety hazards identified and correct procedures adopted to minimise risk to self and others.1.5 Materials selected to supervisor's instructions, safely handled and stored/located ready for application.1.6 Appropriate personal protective equipment selected, correctly fitted and used.1.7 Tools and equipment selected consistent with job requirements, checked for serviceability and any faults reported to supervisor.1.8 Fixing/fastenings selected to instructions consistent with job requirements.



Element of competency	Performance criteria
<p>2 Prepare materials selected for construction process</p>	<p>2.1 Activities for material preparation identified from specifications or supervisor's instructions.</p> <p>2.2 Material preparation carried out to satisfy requirements of construction process.</p>
<p>3 Prepare work area suitable for construction process</p>	<p>3.1 Activities to be carried out in work area identified from drawing details of proposed construction and supervisor's instructions.</p> <p>3.2 Work area prepared for construction process to supervisor's instruction.</p>
<p>4 Use tools and equipment appropriate for construction process</p>	<p>4.1 Regular hand and power tools suitable for application process identified to job requirements.</p> <p>4.2 Hand and power tools used safely and effectively to instruction to carry out construction processes.</p>
<p>5 Select materials and cut components</p>	<p>5.1 Material obtained from stack to instruction.</p> <p>5.2 Correct manual handling techniques used to move and place materials.</p> <p>5.3 Materials safely moved to work area.</p> <p>5.4 Docking/drop saw used to accurately cut one or multiple components to same length to instruction.</p>



Element of competency	Performance criteria
6 Distribute components	6.1 Cut components distributed and stacked to suit job location and sequence.
7 Clean up	7.1 Unused material stacked/stored for reuse or removal. 7.2 Work area cleared. 7.3 Tools and equipment cleaned, maintained and stored. 7.4 Waste disposed of using appropriate method to EPA requirements.

Competency is to be demonstrated by carrying out the safe and effective preparation of materials and work area for the installation of partition framing in accordance with the listed range of variables.

Prerequisite relationship of units

Prerequisites for this unit are:

- BCG1001A – Carry out OH&S requirements
- BCG1005A – Use hand and power tools
- BCG1006A – Use small plant and equipment.

Context of assessment

Competency shall be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.



BCG1017A – Prepare for construction process (demolition)

Element of competency	Performance criteria
1 Plan for demolition process	<ul style="list-style-type: none">1.1 Quality assurance requirements of company's construction operations recognised and adhered to.1.2 Job requirements identified from drawings/supervisor's instructions.1.3 OH&S requirements for demolition tasks and workplace environment recognised and adhered to.1.4 Safety hazards identified and correct procedures adopted to minimise risk to self and others.1.5 Protection of public and environment identified from demolition plan/instructions.1.6 Appropriate personal protective equipment selected according to job requirements, and correctly fitted and used.1.7 Tools and equipment selected to instructions consistent with the job requirements, checked for serviceability and any faults reported to supervisor.1.8 Protective equipment and materials selected to instructions, consistent with job requirements.



Element of competency	Performance criteria
2 Prepare materials for demolition process	2.1 Materials for protection of others, public and environment selected to instructions. 2.2 Material preparation carried out to satisfy requirements of protective barriers and construction
3 Prepare work area for demolition process	3.1 Activities to be carried out in work area identified from supervisor's instructions 3.2 Protective barriers to be erected/constructed identified from drawing details and/or instructions. 3.3 Barriers, dust blankets and/or safety fencing erected/installed to instructions.
4 Use tools and equipment for construction processes	4.1 Regular hand and power tools suitable for application processes identified from demolition plan/supervisor's instructions. 4.2 Hand and power tools used safely and effectively in construction processes.
5 Set up plant and equipment for initial demolition processes	5.1 Location of plant and equipment identified from drawings/instructions. 5.2 Plant and equipment located and established in position ready for operation.
6 Clean up	6.1 Unused materials stacked/stored. 6.2 Work area cleared. 6.3 Waste disposed of using appropriate method to EPA requirements. 6.4 Tools and equipment cleaned, maintained and stored.



Competency is to be demonstrated by carrying out safe and efficient preparation and construction processes in preparing for the demolition of a building using any of the listed range of variables.

Prerequisite relationship of units

Prerequisites for this unit are:

- BCG1001A – Carry out OH&S requirements
- BCG1005A – Use hand and power tools
- BCG1006A – Use small plant and equipment.

Context of assessment

Competency shall be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.



BCG1019A – Prepare for construction process (painting and decorating)

Element of competency	Performance criteria
1 Plan for construction process	<ul style="list-style-type: none">1.1 Quality assurance requirements of company's painting and decorating operations recognised and adhered to.1.2 Preparation and planning requirements identified from drawings and/or plans.1.3 OH&S requirements determined and adhered to in accordance with application tasks and workplace environment.1.4 Safety hazards identified and correct procedures adopted to minimize risk to self and others.1.5 Materials selected to supervisor's instructions, safely handled and stored/located ready for application.1.6 Appropriate personal protective equipment selected, correctly fitted and used.1.7 Tools and equipment selected consistent with job requirements, checked for serviceability and any faults reported to supervisor.1.8 Fixing/fasteners selected consistent with job requirements and checked for serviceability.



Element of competency	Performance criteria
2 Prepare materials selected for construction process	2.1 Activities for material preparation identified from specifications or supervisor's instructions. 2.2 Fasteners/fixing prepared for installation to instruction.
3 Prepare work area suitable for construction process	3.1 Activities to be carried out in work area identified from surfaces to be finished and height to be accessed. 3.2 Work area prepared for construction process to supervisors instructions.
4 Use tools, plant and equipment appropriate for construction process	4.1 Regular hand and power tools suitable for application process identified with job requirements. 4.2 Hand and power tools used safely and effectively to carry out processes.
5 Assist with initial preparation of surfaces for painting and decorating	5.1 Sound surfaces prepared by either sanding or washing down using sugar soap, solvents or detergent. 5.2 Unsound surfaces prepared by scraping and/or sanding.



Element of competency	Performance criteria
6 Assist with preparing surfaces for final finish	6.1 Stopping/filling material applied to a flush and even finish. 6.2 Sanded surface prepared by hand. 6.3 Primer/sealer/undercoats applied to surface by brush and/or roller.
7 Clean up	7.1 Materials stacked /stored for reuse or disposal. 7.2 Work area cleared. 7.3 Tools and equipment cleaned and stored. 7.4 Waste disposed of using appropriate method to EPA requirements.

Competency is to be demonstrated by the safe and effective preparation of materials using the processes listed within the range of variables statement.

Prerequisite relationship of units

Prerequisites for this unit are:

- BCG1001A – Carry out OH&S requirements
- BCG1005A – Use hand and power tools
- BCG1006A – Use small plant and equipment.

Context of assessment

Competency shall be assessed in the workplace or simulated workplace environment in accordance with work practices and safety procedures.