APPLY KNOWLEDGE OF RESIDENTIAL BUILDING PROCESSES AND MATERIALS
CERTIFICATE II IN BUILDING AND CONSTRUCTION (PATHWAY – PARAPROFESSIONAL)
30010
LECTURER’S GUIDE
BUILDING AND CONSTRUCTION
Apply knowledge of residential building processes and materials

30010

Lecturer’s guide
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Apply knowledge of residential building processes and materials
Lecturer’s guide

30010
Introduction

This lecturer’s guide takes you through the various documents associated with the unit of competency and the resources you will require to deliver it. It also provides some suggestions to assist you in delivering and assessing the knowledge and skills learners need to understand the basic operation of the residential building industry and to develop employability skills relevant to an entry-level employee of the industry.

Areas of explanation in the unit include:

- the processes associated with the construction of residential buildings
- pre-construction, construction and post-construction phases of building
- construction programs, timelines and variations
- construction types
- materials and equipment
- trades involved in residential construction.

Qualification overview

This unit of competency, 30010 *Apply knowledge of residential building processes and materials*, forms part of Certificate II in Building and Construction (Pathway – Paraprofessional) and is aimed at people who are considering a paraprofessional career in the residential building industry (as opposed to a career in the trade sector).

The course consists of 12 units of study and a period of work placement. These two components, study and work, will provide learners with an introductory background to the paraprofessional side of the residential building industry.

To progress further in the industry, beyond this introductory level, learners will then need to specialise in a particular field of study, such as building, estimating, scheduling, drafting or building design. Courses for these careers usually commence at Certificate IV level and progress through to diploma or even advanced diploma levels at a registered training provider who delivers these programs.

Some areas of study, such as architecture, interior design and construction management, can then be studied further at degree level at a university.
Unit overview

This unit of competency specifies the outcomes required to understand the importance and the basic operation of the residential building industry and to develop employability skills relevant to an entry-level employee of the industry. It supports the attainment of basic understanding and application of construction processes and materials to tasks such as estimating, costing and drafting.

Competence in this unit will be demonstrated by successful completion of three assessments:

1. compilation of a resource file of materials and construction types
2. use of a construction program to identify and describe the impacts of variations on the timeline
3. selection of a construction type and materials for a specific house.

The full unit of competency details are provided for you at Annex A to this guide.

Resources and preparation

You will need to provide learners with access to:

- computers with internet access and word-processing and spreadsheet applications
- a current and typical construction program suitable for use in Activity 2.2 and Assessment 2.

You will also need a range of example documentation relevant to residential building. These should be specific to the prevalent construction style in your area and will be used in class as examples for discussion and activities.

Check the ‘Guide’ column of the delivery plan, provided at Annex B to this guide, for suggestions about what you should do in preparation for each session and activity.

Learners are required to provide the following materials for in-class work and the activities:

- an A4 notepad
- an A4 file for notes, handouts and other printed documents
- pens, pencils, eraser and highlighters
- a USB thumb drive (1Gb).
Additionally, the following resources are referenced in the learner’s guide.

<table>
<thead>
<tr>
<th>Trade area</th>
<th>Resource</th>
<th>Publisher</th>
</tr>
</thead>
<tbody>
<tr>
<td>All areas covered by building regulations</td>
<td>Building Code of Australia, Volume 2 <em>Class 1 and Class 10 Buildings: Housing Provisions</em></td>
<td>Australian Building Codes Board</td>
</tr>
<tr>
<td>Bricklaying and stonemasonry</td>
<td>AS 3700:2001 <em>Masonry structures</em></td>
<td>SAI Global</td>
</tr>
<tr>
<td>Timber and steel framing</td>
<td>AS 1684:2006 <em>Residential timber-framed construction</em></td>
<td>SAI Global</td>
</tr>
<tr>
<td></td>
<td>NASH Standard: <em>Residential and low-rise steel framing Part 1 – Design criteria</em></td>
<td>National Association of Steel-Framed Housing</td>
</tr>
<tr>
<td>Cabinetry and joinery</td>
<td>HIA construction guide – Guide to kitchen and bathroom construction</td>
<td>Housing Industry Association</td>
</tr>
<tr>
<td>Electrical</td>
<td>AS/NZS 3000:2012 <em>Electrical installations (known as the Australian/New Zealand wiring rules)</em></td>
<td>SAI Global</td>
</tr>
<tr>
<td>Plumbing</td>
<td>AS/NZ 3500 <em>Plumbing and Drainage</em></td>
<td>SAI Global</td>
</tr>
<tr>
<td>Concrete</td>
<td>AS 2870 <em>Residential slabs and footings</em></td>
<td>SAI Global</td>
</tr>
</tbody>
</table>
Websites

- Association of Wall and Ceiling Industries <www.awci.org.au>
- Australian Institute of Architects <www.architecture.com.au>
- Australian Paint Manufacturers Federation <www.apmf.asn.au>
- Cement Concrete and Aggregates Australia (CCAA) <www.concrete.net.au>
- Cordell® Information <www.cordell.com.au>
- Housing Industry Association (HIA) <www.hia.com.au>
- Master Builders Australia <www.masterbuilders.com.au>
- National Association of Steel-Framed Housing <www.nash.asn.au>
- Rawlinsons Management Services Ltd <www.rawlhouse.com>
- Think Brick <www.thinkbrick.com.au>

Resources noted in this guide and in the learner’s guide may vary across regions, especially where state/territory legislation is referenced. Please review within the context of your own local requirements.

You will need to check all websites noted in the learner’s guide before each delivery session, as addresses can change without notice.

Check the resources column of the delivery plan, provided at Annex B to this guide, for resources required in each section of the program.
Delivery strategy

This section provides suggestions to assist you to deliver this unit and achieve the desired learning outcomes.

The delivery strategy for the learner’s guide is based on performance criterion 1.3 *List the processes that occur in order to progress a typical residential building from initial client enquiry to contract completion*. As such, the guide follows the sequence of events and associated trades from initial contact between the client and designer through to construction, concluding with building completion and handover to the client. Learners are provided with a chart showing the processes of designing and building a house at Annex F to the learner’s guide, and a table of the personnel involved in each process at Annex G to the learner’s guide.

This delivery strategy is not the only way the content could be delivered. The best delivery method for you may depend on the requirements of your state or territory, local government, institution or organisation. Modify your delivery strategy to suit your circumstances.

As you prepare to deliver this unit, you should also decide whether there is a particular type of construction that it would be beneficial for your learners to know most about. If there is, try to source plans, specifications and ideas or examples that will enable you to provide learning experiences with an emphasis on that type of construction. Although the learner’s guide refers to specific types of construction and materials, these can be modified to suit the area in which the unit is being delivered and the preferred construction type(s).

If you have not done so already, get a copy of the learner’s guide and familiarise yourself with it. Also look at the delivery plan provided at Annex B to this guide.
The learner’s guide

Format and intent

General

In the learner’s guide you’ll find a variety of material to help you deliver this unit. This includes:

• content – text, images and diagrams
• activities, including fill in the blanks, discussions, research and written activities, all related to the content most recently covered.

All written activities are designed to be written directly into the learner’s guide. When learners have finished the unit, their guide should be complete and able to be used as a reliable reference in the future. For this to be the case, the activities need to be checked and/or discussed to give learners the opportunity to correct any incorrect or incomplete parts.

Note: The learner’s guide is not intended to be content-heavy, and it is not a textbook. It is designed to complement your classroom delivery and provide learners with a summary of the unit content.

For this unit

Throughout the guide learners will complete activities to help them engage with the content being covered and enhance their learning through reflection and research. Providing these activities at regular intervals through the unit allows both you and your learners to quickly identify any areas of the content that might need more attention.

You should try to complete these activities yourself before class so that you can prompt the learners with likely answers should they get stuck or be unable to provide a suitable response.

You may choose to supplement the content of the learner’s guide with additional activities and examples. Following activities with a group discussion to encourage further questions will also enhance learners’ knowledge.

Pay particular attention to Activities 2.2 and 17.1, as these provide the basis of Assessment 2.
Content

In **Sections 1 and 2** of the guide, learners will explore the preparation and information gathering that occurs during the pre-construction phase. Learners should be exposed to examples of the documentation involved in this phase, so be prepared to provide such examples.

**Section 3** looks at site preparation as the beginning of the construction phase, including the site set-up, site works and plumbing pre-lay. Learners will research service providers in their area, and think about the trades and equipment required at this stage. You will need to allow time for this research.

**Sections 4 to 16** explore the construction process from start to finish, covering footings, floor, walls, ceiling frame and roof, services rough-in, roof finishes, roof plumbing, linings, fixtures and cabinetry, finishes, fittings and services and external works. Throughout, learners learn about the trades and equipment required and complete activities related to the content. Examine the content prior to delivering it and provide examples, such as cabinetry plans and landscape drawings, where appropriate. Assessment 1 falls in Section 10.

**Section 17** concludes the construction phase, looking at the impact of variations on the budget and timeline. Be prepared to provide examples of variation requests, builders’ responses and client/designer acceptance. Assessment 2 should be completed during this session, so you will need to allow time for it.

**Section 18** explores the post-construction processes, including pre-handover inspection, handover and final completion, and contains Assessment 3.
Assessment summary

The assessments for this unit are designed to assess competency in the elements of the unit.

**Assessment 1** will require learners to compile a resource file of examples of building materials and construction types. They will include a chart listing the materials they have chosen and indicating their understanding of which trade uses each material, whether it is for structural or cosmetic purposes, and how long each trade would spend on site based on the construction program provided in Session 2.

**Assessment 2** will require learners to follow a construction program and demonstrate their understanding of the impact of variations on the timelines in the program. It will include the results of Activities 2.2 and 17.1, along with further interpretation of the construction program provided in Session 2.

**Assessment 3** will require learners to select a construction type and materials for a specific house, using the resource file they created for Assessment 1. They will create a collage of labelled examples.

An assessment plan providing a suggested scheduling of the assessment is provided at Annex C to this guide.

A matrix is included at Annex E to this guide, showing how the assessment tasks map to the unit performance criteria.

**Results and appeals**

Please refer to your training organisation or association website for information about the assessment process.
Annex A – Unit details

<table>
<thead>
<tr>
<th>Unit title</th>
<th>Apply knowledge of residential building processes and materials</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Descriptor</strong></td>
<td>This unit of competency specifies the outcomes required to apply knowledge of residential building processes and materials. This includes the processes themselves, the interrelationships between them and the major pre and post construction processes. An ability to apply knowledge of materials used in construction is also developed.</td>
</tr>
<tr>
<td><strong>Employability skills</strong></td>
<td>The following employability skills are an integral part of the delivery of this unit. They include: communication; teamwork; problem solving; initiative and enterprise; planning and organising; self-management; learning; and technology.</td>
</tr>
<tr>
<td><strong>Prerequisite units</strong></td>
<td>Develop residential building industry knowledge Carry out basic measurement and calculations for residential buildings</td>
</tr>
<tr>
<td><strong>Application</strong></td>
<td>This unit supports the attainment of a basic understanding and application of construction processes and materials to tasks such as estimating, costing and drafting.</td>
</tr>
</tbody>
</table>

**Element 1 Develop knowledge of residential building processes**

1.1 Identify processes associated with construction of residential buildings

1.2 Identify different trades and non-trade occupations commonly engaged in residential building industry

1.3 List the processes that occur in order to progress a typical residential building from initial client enquiry to contract completion

**Element 2 Develop knowledge of common residential building materials**

2.1 Identify materials in common use in residential buildings in local areas

2.2 Research general characteristics of these materials

**Element 3 Identify the order, basic characteristics and interrelationships in processes**
### Required skills and knowledge

#### Essential knowledge

Understanding of:

- materials used in residential buildings
- processes associated with residential building construction
- processes that precede and conclude residential building construction
- relationships between processes in the residential building industry.

#### Essential skills

Ability to:

- communicate effectively
- read
- use numbers and units of measure
- plan and research gathering of information
- work within a team and share with others.
Range statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item and local industry and regional contexts.

| Processes associated with construction may include: | • processes that precede construction  
  ◦ planning  
  ◦ surveying  
  ◦ drafting  
  ◦ estimating and costing  
  ◦ approvals  
  ◦ contracting  
  ◦ purchasing  
  ◦ scheduling  
  • processes during construction  
  ◦ site works  
  ◦ services  
  ◦ trades and other works  
    – bricklaying  
    – carpentry  
    – concreting, formwork, reinforcing  
    – solid plastering  
    – wall and ceiling plastering  
    – wall and floor tiling  
    – roof plumbing  
    – roof tiling  
    – electrical work  
    – paving  
    – fencing  
    – landscaping  
  ◦ supervision  
  • post building processes  
  ◦ clean up  
  ◦ practical completion and handover  
  ◦ defects liability |
| **Materials in common use** may include: | a representative sample of any materials used in the construction of residential buildings in the local area covering:  
- foundations/footings  
- floors and coverings  
- walls, wall frames and coverings  
- ceiling framing and coverings  
- roof framing and coverings  
- joinery  
- fittings such as:  
  - plumbing hardware  
  - electrical fittings  
  - doors, locks, hinges  
  - shelving to built-in cupboards |
| --- | --- |
| **General characteristics** may include: | nature of the material  
forms in which it is purchased, delivered and stored  
provision for on-site storage |
| **Basic characteristics of the processes** may include: | general overview only of the:  
- function performed  
- qualifications required to do the task  
- legal or regulatory requirements  
- manner in which the service is provided |
| **Machinery and equipment** may include: | equipment and/or machinery that may normally be on-site and either be:  
- supplied by the tradesperson, or  
- hired by the builder  
  - storage sheds  
  - lifts |
| **Documentation of examples of the timelines** may include: | charts  
Gantt charts  
Printouts from project managements software |
Evidence guide

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, Range Statement and Assessment Guidelines for this course.

<table>
<thead>
<tr>
<th>Critical aspects of assessment and evidence required to demonstrate this competency unit</th>
<th>A person who demonstrates competency in this unit must be able to provide evidence of the ability to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• locate, interpret and apply relevant information</td>
<td>• understand fundamental processes, terms, concepts and principles related to residential building construction</td>
</tr>
<tr>
<td>• list materials and main equipment commonly used in residential building construction</td>
<td>• describe the nature and sequencing of fundamental processes in residential building construction</td>
</tr>
<tr>
<td>• engage in conversations with others</td>
<td>• generate brief notes on aspects of the residential building industry in relation to:</td>
</tr>
<tr>
<td>• processes</td>
<td>◦ processes</td>
</tr>
<tr>
<td>• materials, and their storage.</td>
<td>◦ materials, and their storage.</td>
</tr>
</tbody>
</table>

Access and equity considerations

Reasonable adjustment may be made to meet individual learner needs.
Context of and specific resources for assessment

This competency is to be assessed using standard and authorised work practices, safety requirements and environmental constraints.

Assessment of essential underpinning knowledge will usually be conducted in an off-site context.

Assessment is to comply with relevant regulatory or Australian Standards' requirements.

Resource implications for assessment include:

- an induction procedure and requirement
- realistic tasks or simulated tasks covering the mandatory task requirements
- relevant specifications and work instructions
- support materials appropriate to activity
- workplace instructions relating to safe work practices and addressing hazards and emergencies
- research resources, including industry related systems information.

Reasonable adjustments for people with disabilities must be made to assessment processes where required. This could include access to modified equipment and other physical resources, and the provision of appropriate assessment support.
### Method of assessment

Assessment methods must:

- satisfy the endorsed assessment guidelines of the Construction, Plumbing and Services Integrated Framework Training Package
- include direct observation of tasks in real or simulated work conditions, with questioning to confirm the ability to consistently identify and correctly interpret the essential underpinning knowledge required for practical application
- reinforce the integration of employability skills with work place tasks and job roles
- confirm that competency is verified and able to be transferred to other circumstances and environments.

Validity and sufficiency of evidence requires that:

- competency will need to be demonstrated over a period of time reflecting the scope of the role and the practical requirements of the workplace
- where the assessment is part of a structured learning experience the evidence collected must relate to a number of performances assessed at different points in time and separated by further learning and practice. A decision on competency should only be taken at the point when the assessor has complete confidence in the person’s demonstrated ability and applied knowledge
- all assessment that is part of a structured learning experience must include a combination of direct, indirect and supplementary evidence.

Assessment processes and techniques should as far as is practical take into account the language, literacy and numeracy capacity of the candidate in relation to the competency being assessed.

Supplementary evidence of competency may be obtained from relevant authenticated documentation from third parties, such as existing supervisors, team leaders or specialist training staff.
Annex B – Delivery plan

The following notes will help you to prepare for the delivery of this unit’s content.

The learner’s guide is a required resource for all sessions. In addition, each session may require specific resources (see below), while some will share resources over a number of weeks’ delivery.

This delivery strategy is not intended to be the only way the unit content could be delivered. Delivery methods may vary depending on local, regional and/or organisational requirements.

Given that learners in this unit are likely to lack experience of any of this content, you will have to guide them through the content on most occasions. However, learners should also be encouraged to find their own answers to questions so as to develop their knowledge of where information can be sourced, even if they don’t have any background in the residential building industry at all.

Note: This delivery plan is based on 15 × two-hour sessions. A different session length or number of sessions will require adjustments to the plan.
<table>
<thead>
<tr>
<th>Session</th>
<th>Performance criteria</th>
<th>Guide</th>
<th>Resources</th>
</tr>
</thead>
</table>
| 1       | 1.1, 1.2, 1.3       | Section 1 – Pre-construction: part 1  
Client-designer contact  
Design brief: provide an example;  
Survey; provide an example  
• Activity 1.1  
  Complete list provided; show plan or consider using industry survey  
Design and documentation; provide examples  
• Activity 1.2  
  Research and prepare answer for your state/territory  
• Activity 1.3  
  Research and prepare answer for your area  
• Activity 1.4  
  Provide an example of tender documents  
• Activity 1.5  
  Provide an example of specification  
• Activity 1.6  
  Research answer from local designers to provide to class  
Estimates; provide an example  
• Activity 1.7  
  Complete the activity provided; project an image or copy and use the drawings the example estimate was prepared from | Computer and internet access |
| 2       | 1.1, 1.2, 1.3       | Section 2 – Pre-construction: part 2  
Registered building contractor  
Subcontractors  
Quotes; provide an example  
• Activity 2.1  
  Use the example quote for learners to find names of other trades as a projected image or handout  
Contracts; provide an example  
  Construction program and scheduling; provide an example (you will need a copy for each learner for Activity 2.2, Activity 17.1 and Assessment 2 which will satisfy performance criteria 3.4. *Examine and follow documentation of examples of the timelines for a residential building project.*) | Computer and internet access  
Current construction program example |
<table>
<thead>
<tr>
<th>Session</th>
<th>Performance criteria</th>
<th>Guide</th>
<th>Resources</th>
</tr>
</thead>
</table>
| 3       | 1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.3 | Section 3 – Construction: site preparation  
Site set-up  
- Activity 3.1  
  Research and prepare answer for your state/territory or area  
- Activity 3.2  
  Research and prepare answer for your state/territory or area  
Site works  
- Activity 3.3  
  Consider showing images of trades at work with relevant machinery/equipment  
Plumbing pre-lay  
- Activity 3.4  
  Allow learners time to find answer by re-reading site works  
- Activity 3.5  
  Show activity plan and reiterate what a fixture is | Computer and internet access |
| 4       | 1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.3 | Section 4 – Construction: footings  
Materials  
- Activity 4.1  
  Show activity drawing and explain components  
Building the footings  
- Activity 4.2  
  Check address/pathway and research answers | Computer and internet access |
<table>
<thead>
<tr>
<th>Session</th>
<th>Performance criteria</th>
<th>Guide</th>
<th>Resources</th>
</tr>
</thead>
</table>
| 5       | 1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.2 | Section 5 – Construction: floor  
The slab  
Materials  
• Activity 5.1  
  Allow learners time to find the answer by re-reading footings, materials  
• Activity 5.2  
  Allow learners time to find the answer by re-reading footings, building the footings  
Preparing for the slab  
• Activity 5.3  
  Allow learners time to find the answer by re-reading footings, building the footings  
• Activity 5.4  
  Check address/pathway and research answers | Computer and internet access |
<table>
<thead>
<tr>
<th>Session</th>
<th>Performance criteria</th>
<th>Guide</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.3</td>
<td><strong>Section 6 – Construction: walls</strong>&lt;br&gt;Full masonry walls&lt;br&gt;Materials&lt;br&gt;• Activity 6.1 Check address/pathway and research answer&lt;br&gt;Building full masonry walls&lt;br&gt;• Activity 6.2 Check address/pathway, draw and display answer&lt;br&gt;Brick veneer walls&lt;br&gt;Materials&lt;br&gt;• Activity 6.3 Check address/pathway and research answers. Learners will need assistance with some of the terms&lt;br&gt;Building brick veneer walls&lt;br&gt;• Activity 6.4 Check address/pathway, project image and explain&lt;br&gt;Framed walls&lt;br&gt;Materials&lt;br&gt;Building framed walls&lt;br&gt;• Activity 6.5 Draw, project and explain components. An image is available in the BCA</td>
<td>Computer and internet access</td>
</tr>
<tr>
<td>7</td>
<td>1.1, 1.2, 1.3, 2.1, 2.2, 3.1</td>
<td><strong>Section 7 – Construction: ceiling frame</strong>&lt;br&gt;Materials&lt;br&gt;• Activity 7.1 Check address/pathway, project images and explain&lt;br&gt;Building the ceiling frame&lt;br&gt;• Activity 7.2 Make images, project while explaining and name members&lt;br&gt;• Activity 7.3 Draw, project image and explain components. An image is available in the BCA</td>
<td>Computer and internet access</td>
</tr>
<tr>
<td>Session</td>
<td>Performance criteria</td>
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<td>Resources</td>
</tr>
<tr>
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</tr>
</tbody>
</table>
| 8       | 1.1, 1.2, 1.3  
          | 2.1, 2.2  
          | 3.1     | Section 8 – Construction: roofs  
          | Materials  
          | Building the roof  
          | • Activity 8.1  
          | Make an image, project while explaining and name components  
          | • Activity 8.2  
          | Make an image, project while explaining and name members  
          | • Activity 8.3  
          | Make an image, project while explaining and name members  
          | • Activity 8.4  
          | Draw, project and explain components. An image is available in the BCA |
| 9       | 1.1, 1.2, 1.3  
          | 2.1, 2.2  
          | 3.1, 3.2 | Section 9 – Construction: services rough-in  
          | Services  
          | • Activity 9.1  
          | Project image of plan, refresh on fixtures, explain not all will have hot *and* cold water supply  
          | • Activity 9.2  
<pre><code>      | Project image of plan, draw in lights and links to switches. Encourage learners to draw a different layout to the one you drew as an explanation |
</code></pre>
<table>
<thead>
<tr>
<th>Session</th>
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<th>Guide</th>
<th>Resources</th>
</tr>
</thead>
</table>
| 10      | 1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.3 | Section 10 – Construction: roof finishes  
Materials  
Putting on the roof finish  
• Activity 10.1  
  Research and answer questions  

Section 11 – Construction: roof plumbing  
Roof plumbing  
• Activity 11.1  
  Research and answer the questions  
Materials  
• Activity 11.2  
  Research, draw, project the images and answer the question  
• Activity 11.3  
  Provide leads for local manufacturers suitable for research  
Assessment 1 due | Computer and internet access |
| 11      | 1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.3 | Section 12 – Construction: linings  
Rendering and plastering  
Materials  
Applying the render and plaster  
• Activity 12.1  
  Research and answer the questions  
Plasterboard  
Materials  
Fixing plasterboard  
• Activity 12.2  
  Research and answer the questions | Computer and internet access |
<table>
<thead>
<tr>
<th>Session</th>
<th>Performance criteria</th>
<th>Guide</th>
<th>Resources</th>
</tr>
</thead>
</table>
| 12      | 1.1, 1.2, 1.3, 2.1, 3.1, 3.3 | Section 13 – Construction: fixtures and cabinetry  
- Fixtures  
- Cabinetry  
  - Materials  
  - Installation  
    - Activity 13.1  
      Complete list, encourage learners to use plans you provide as examples of documentation  
Section 14 – Construction: finishes  
- Tiling  
  - Materials  
  - Laying tiles  
    - Activity 14.1  
      Research and answer the questions  
- Painting  
  - Materials  
  - Applying paint  
    - Activity 14.2  
      Research and answer the questions | Computer and internet access |
<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>1.1, 1.2, 1.3, 2.1, 3.1, 3.3</td>
<td>Section 15 – Construction: fittings and services&lt;br&gt;Plumbing&lt;br&gt;Electrical&lt;br&gt;Carpentry&lt;br&gt;  • Activity 15.1&lt;br&gt;  Research popular websites in your state/territory or area&lt;br&gt;  Section 16 – Construction: completing the external works&lt;br&gt;  Provide examples of landscape drawings&lt;br&gt;  Paving&lt;br&gt;  • Materials&lt;br&gt;  • Laying the pavers&lt;br&gt;  Builder’s clean-up&lt;br&gt;  Landscaping&lt;br&gt;  Fencing&lt;br&gt;  Clothes line&lt;br&gt;  Letterbox&lt;br&gt;  • Activity 16.1&lt;br&gt;  Complete drawing and project as an example</td>
<td>Computer and internet access</td>
</tr>
<tr>
<td>14</td>
<td>1.1, 1.3, 3.1, 3.2</td>
<td>Section 17 – Construction: variations&lt;br&gt;Types of variations&lt;br&gt;  • Activity 17.1&lt;br&gt;  Circle mistakes and missing items, fill out list and project list for discussion&lt;br&gt;  • Activity 17.2&lt;br&gt;  Provide examples of variations, the request, the builder’s response and client/designer acceptance&lt;br&gt;  Explain that a builder may add an administration fee even if a variation is not accepted by the client</td>
<td>Assessment 2 due</td>
</tr>
<tr>
<td>Session</td>
<td>Performance criteria</td>
<td>Guide</td>
<td>Resources</td>
</tr>
<tr>
<td>---------</td>
<td>----------------------</td>
<td>----------------------------------------------------------------------</td>
<td>-----------------------------------------------</td>
</tr>
</tbody>
</table>
| 15      | 1.1, 1.2, 1.3 3.1    | Section 18 – Post-construction: pre-handover inspection, handover and final completion  
Pre-handover inspection  
Discuss defects  
Handover  
Discuss more about client taking possession too early  
Final completion  
Discuss caveat if builder not paid  
• Activity 18.1  
Prepare a questionnaire or survey for the learners to complete  
Assessment 3 due | Questionnaire or survey provided by your lecturer |
Annex C – Assessment plan

The assessments for this unit are designed to assess competency in the elements of the unit.

<table>
<thead>
<tr>
<th>Due</th>
<th>Assessment</th>
<th>Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 10</td>
<td><strong>Assessment 1 – Materials and construction resource file</strong></td>
<td>1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Assessment 1 requires learners to collect materials information for different construction types that will demonstrate their understanding of the characteristics of building materials and their appropriate application. The information is to be submitted in a resource file format.</td>
<td></td>
</tr>
<tr>
<td>Session 14</td>
<td><strong>Assessment 2 – Variations and construction program</strong></td>
<td>1, 3</td>
</tr>
<tr>
<td></td>
<td>Assessment 2 uses Activities 2.2 and 17.1 to understand the impact variations have on a construction program.</td>
<td></td>
</tr>
<tr>
<td>Session 15</td>
<td><strong>Assessment 3 – Selecting construction type and materials for a house</strong></td>
<td>1, 2, 3</td>
</tr>
<tr>
<td></td>
<td>Assessment 3 uses the resource file from Assessment 1 to make specific selections for a house of the learner’s choice or as provided by you. This will be submitted in an A3 collage format.</td>
<td></td>
</tr>
</tbody>
</table>
Apply knowledge of residential building processes and materials

Lecturer's guide
Annex D – Assessments
Assessment 1 – Materials and construction resource file

Introduction

This assessment is designed to assess learners' ability to:

• identify different building materials
• identify different construction types
• understand which trades use which materials
• understand whether materials are structural or cosmetic
• read and interpret a construction program.

Requirements and format

The format and presentation of the journal forms part of the assessment.

The suggested due dates for the assessment are detailed in the assessment plan at Annex C to this guide.

Learners are required to submit a marking guide (see Annex F).

Materials and equipment

To undertake this assessment, learners will need:

• a suitable file
• pens, pencils, glue, etc.

For this assessment, you will need to provide:

• a current and typical construction program.
30010

Apply knowledge of residential building processes and materials

Assessment 1 – Materials and construction resource file

Name ___________________________ Date _____________

I have received feedback on this assessment.

Signature _________________________ Date _____________

Assessor’s initials

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**Assessment 1 – Materials and construction resource file**

**Introduction**

In this assessment you are required to compile a resource file of examples that demonstrates your understanding of building materials and construction types. The resource file you create will also be used to complete Assessment 3.

The resource file should contain (at least) pictures, samples and/or information relating to the following items.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Footings and floors</td>
</tr>
<tr>
<td>2.</td>
<td>Full masonry walls</td>
</tr>
<tr>
<td>3.</td>
<td>Brick veneer walls</td>
</tr>
<tr>
<td>4.</td>
<td>Timber-framed walls</td>
</tr>
<tr>
<td>5.</td>
<td>Windows</td>
</tr>
<tr>
<td>6.</td>
<td>Doors and hardware</td>
</tr>
<tr>
<td>7.</td>
<td>Roof types</td>
</tr>
<tr>
<td>8.</td>
<td>Roof finishes</td>
</tr>
<tr>
<td>9.</td>
<td>Gutters, fascias and downpipes</td>
</tr>
<tr>
<td>10.</td>
<td>Ceiling linings</td>
</tr>
<tr>
<td>11.</td>
<td>Internal wall linings</td>
</tr>
<tr>
<td>12.</td>
<td>External wall linings</td>
</tr>
<tr>
<td>13.</td>
<td>Kitchen cabinets</td>
</tr>
<tr>
<td>14.</td>
<td>Bathroom fixtures</td>
</tr>
<tr>
<td>15.</td>
<td>Laundry fixtures</td>
</tr>
<tr>
<td>16.</td>
<td>Toilets</td>
</tr>
<tr>
<td>17.</td>
<td>Render and plaster</td>
</tr>
<tr>
<td>18.</td>
<td>Wall and floor tiles</td>
</tr>
<tr>
<td>19.</td>
<td>Paints</td>
</tr>
<tr>
<td>20.</td>
<td>Taps</td>
</tr>
<tr>
<td>21.</td>
<td>Lights and light switches</td>
</tr>
<tr>
<td>22.</td>
<td>Power points</td>
</tr>
<tr>
<td>23.</td>
<td>Hot water units</td>
</tr>
<tr>
<td>24.</td>
<td>Gas meters</td>
</tr>
<tr>
<td>25.</td>
<td>Electric meters</td>
</tr>
<tr>
<td>26.</td>
<td>Paving</td>
</tr>
<tr>
<td>27.</td>
<td>Landscaping</td>
</tr>
<tr>
<td>28.</td>
<td>Fences</td>
</tr>
<tr>
<td>29.</td>
<td>Letterboxes</td>
</tr>
</tbody>
</table>
Requirements and format

The front of your file must contain a chart in the following format which demonstrates your understanding of:

30. the material
31. the trade that uses the material
32. whether the material is structural or cosmetic
33. how many days in total that trade was on site using the construction program given to you in Session 2.

Source the information from:

- The construction program given to you in Session 2.

An example of the format for the chart follows.

<table>
<thead>
<tr>
<th>Material</th>
<th>Trade</th>
<th>Characteristic of material</th>
<th>No. days on site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber walls</td>
<td>Carpenter</td>
<td>✓</td>
<td>38</td>
</tr>
<tr>
<td>Wall and floor tiles</td>
<td>Tiler</td>
<td>✓</td>
<td>15</td>
</tr>
</tbody>
</table>

The submission must include the marking guide (see Annex E).

Materials and equipment

A suitable file
Pens, pencils, glue, etc

Source information from:

- manufacturers’ websites
- association and institute websites
- builders’ magazines
- design magazines
- newspapers
- trade catalogues
- display centres and display homes
- local and college library
- photographs
Assessment 2 – Variations and construction program

Introduction

This assessment is designed to assess learners’ ability to:

• read and interpret a construction program
• understand how processes interrelate
• understand how long processes take
• understand the impact of variations on the timelines in the program.

Requirements and format

The format and presentation of the submission forms part of the assessment.

The suggested due dates for the assessment are detailed in the assessment plan at Annex C to this guide.

Learners are required to submit a marking guide (see Annex F).

Materials and equipment

To undertake this assessment, learners will need:

• pens, pencils, etc
• their answers to Activities 2.2 and 17.1.

For this assessment, you will need to provide:

• a current and typical construction program.
Apply knowledge of residential building processes and materials
Lecturer’s guide
30010

Apply knowledge of residential building processes and materials

Assessment 2 – Variations and construction program

Name ___________________________ Date ____________

I have received feedback on this assessment.

Signature ___________________________ Date ____________

Assessor’s initials
Assessment 2 – Variations and construction program

Introduction

In this assessment you are required to follow a construction program and demonstrate your understanding of the impact of variations on the timelines in the program.

This assessment will be completed in class in Session 14, and will combine Activity 2.2 with Activity 17.1.

In Activity 17.1 you identified the mistakes that had been made and items that were missing on the drawings provided, and which trades were affected by them. Assume that these mistakes were not discovered until after the walls had been built.

1. With the help of your Lecturer and using the construction program given to you in Session 2 list out the future trades that would be delayed while the mistakes and items missing were being fixed on site
2. Identify from the program any trades that had finished and will now have to return to site.
3. Attach Activity 2.2.

Requirements and format

1. The submission is to be an A4 document with an appropriate A4 cover sheet.
2. The submission should include:
   ◦ copies of Activities 2.2 and 17.1
   ◦ the lists created in 1 and 2 above, printed and stapled to the activities.
3. The submission must include the marking guide (see Annex E).

Materials and equipment

Pens, pencils, etc

Source information from:
• Activity 2.2
• Construction program
• Activity 17.1
Assessment 3 – Selecting construction type and materials for a house

Introduction

This assessment is designed to assess learners’ ability to:

• understand suitability of building materials
• understand suitability of construction types
• identify typical machinery and equipment
• understand which trades use various equipment and machinery.

Requirements and format

The format and presentation of the submission forms part of the assessment.

The suggested due dates for the assessment are detailed in the assessment plan at Annex C to this guide.

Learners are required to submit a marking guide (see Annex F).

Materials and equipment

To undertake this assessment, learners will need:

• A3 paper
• pens, pencils, glue, scissors, etc.

For this assessment, you will need to provide, or guide learners to choose for themselves:

• a house plan and at least one elevation.
30010

Apply knowledge of residential building processes and materials

Assessment 3 – Selecting construction type and materials for a house

Name ___________________________ Date ______________

I have received feedback on this assessment.

Signature _________________________ Date ______________

Assessor’s initials
Assessment 3 – Selecting construction type and materials for a house

Introduction

In this assessment you will select the construction type and materials for a house, using the resource file you compiled for Assessment 1.

Speak to your lecturer before you begin, to find out whether you will choose the house for your assessment or the lecturer will provide one.

You will need a house plan and at least one elevation.

If you are to choose the house yourself, you may find suitable house designs in:

- display home centres
- design magazines
- newspapers
- photographs.

You should select construction types and materials as listed below.

1. Full masonry walls
2. Brick veneer walls
3. Timber-framed walls
4. Footings and floors
5. Windows
6. Doors and hardware
7. Roof types
8. Roof finishes
9. Gutters, fascias and downpipes
10. Ceiling linings
11. Internal wall linings
12. External wall linings
13. Kitchen cabinets
14. Bathroom fixtures
15. Laundry fixtures
16. Toilets
17. Render and plaster
18. Wall and floor tiles
19. Paints
20. Taps
21. Lights and light switches
22. Power points
23. Hot water units
24. Gas meters
25. Electric meters
26. Paving
27. Landscaping
28. Fences
29. Letterbox
Requirements and format

You are required to compile as part of the same collage AT LEAST 10 pictures of equipment and machinery that would be used on a construction site and name which trade would use that equipment or machinery.

30. Picture 1.
31. Picture 2.
32. Picture 3.
33. Picture 4.
34. Picture 5.
36. Picture 7.
37. Picture 8.

An example has been provided on the following pages

Fix the cut outs of your pictures onto A3 paper in a collage type format. This will require several pieces of paper which must be neatly numbered and each construction type or material labelled and the machinery and equipment labelled with a trade against the name. An example has been provided on the following pages.

The submission must be appropriately bound with an A3 cover sheet.

• The submission must include the marking guide (see Annex E).

Materials and equipment

A3 paper
Pens, pencils, glue, scissors, etc

Source information from:
• builders’ magazines
• newspapers
• photographs
• websites
Assessment 3

Roof tiles

Timber frame

External timber weatherboard

Section

SLAB EDGE AND FOOTING DETAIL

WATERPROOF MEMBRANE (WPM)

PARGETING

REINFORCEMENT

SLAB

GL

FOOTING

REINFORCEMENT

FL  00C

Plan

Elevation

Sheet 1

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Apply knowledge of residential building processes and materials

Lecturer’s guide

Annex D

Electric saw – Carpenter

Compactor – Paver

Welding torch – Plumber

Trench digger – Excavator

Sheet 2
Annex E – Assessment guide

<table>
<thead>
<tr>
<th>Unit name</th>
<th>National ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apply knowledge of residential building processes and materials</td>
<td>30010</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Assessment 1</th>
<th>Assessment 2</th>
<th>Assessment 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Element 1 Develop knowledge of residential building processes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1 Identify <em>processes associated with construction</em> of residential buildings</td>
<td>Q1–29</td>
<td>Q4</td>
</tr>
<tr>
<td>1.2 Identify different trades and non-trade occupations commonly engaged in residential construction</td>
<td>Q31</td>
<td>Q1–4</td>
</tr>
<tr>
<td>1.3 List the processes that occur in order to progress a typical residential building from initial client enquiry to contract completion</td>
<td>Q33</td>
<td>Q4</td>
</tr>
</tbody>
</table>

<p>| <strong>Element 2 Develop knowledge of common residential building materials</strong> | | |
| 2.1 Identify <em>materials</em> in common use in residential buildings on local areas | Q30 | | Q1–29 |
| 2.2 Research <em>general characteristics</em> of these materials | Q32 | | Q1–29 |</p>
<table>
<thead>
<tr>
<th>Assessment 1</th>
<th>Assessment 2</th>
<th>Assessment 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Element 3 Identify the order, basic characteristics and interrelationships in processes</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1 Develop an understanding of the <em>basic characteristics of the processes</em> and of how processes interrelate</td>
<td>Q32</td>
<td>Q4</td>
</tr>
<tr>
<td>3.2 Seek information on how long processes take and what could determine variation in time</td>
<td>Q33</td>
<td>Q3, Q4</td>
</tr>
<tr>
<td>3.3 Identify typical <em>machinery and equipment</em> required to complete or improve processes</td>
<td></td>
<td>Q30–39</td>
</tr>
<tr>
<td>3.4 Examine and follow <em>documentation of examples of timelines</em> for residential building project</td>
<td>Q33</td>
<td>Q1, Q2</td>
</tr>
</tbody>
</table>
### Essential knowledge

Understanding of:

<table>
<thead>
<tr>
<th>Topic</th>
<th>Assessment 1</th>
<th>Assessment 2</th>
<th>Assessment 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>materials used in residential buildings</td>
<td>Q30, Q32</td>
<td>Q1–Q29</td>
<td>Q1–Q29</td>
</tr>
<tr>
<td>processes associated with residential building construction</td>
<td>Q1–Q29, Q32–Q33</td>
<td>Q1–Q4</td>
<td>Q1–Q29</td>
</tr>
<tr>
<td>processes that precede and conclude residential building construction</td>
<td>Q33</td>
<td>Q4</td>
<td>Q1–Q29</td>
</tr>
<tr>
<td>relationships between processes in the residential building industry</td>
<td>Q32–Q33</td>
<td>Q1–Q4</td>
<td>Q1–Q29</td>
</tr>
</tbody>
</table>

### Essential skills

Ability to:

<table>
<thead>
<tr>
<th>Skill</th>
<th>Assessment 1</th>
<th>Assessment 2</th>
<th>Assessment 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>communicate effectively</td>
<td>Q1–Q33</td>
<td>Q1–Q4</td>
<td>Q1–Q39</td>
</tr>
<tr>
<td>read</td>
<td>Q1–Q33</td>
<td>Q1–Q4</td>
<td>Q1–Q39</td>
</tr>
<tr>
<td>use numbers and units of measure</td>
<td>Q1–Q33</td>
<td>Q1–Q4</td>
<td>Q1–Q39</td>
</tr>
<tr>
<td>plan and research gathering of information</td>
<td>Q1–Q33</td>
<td>Q1–Q4</td>
<td>Q1–Q39</td>
</tr>
<tr>
<td>work within a team and share with others</td>
<td>Q1–Q33</td>
<td>Q1–Q4</td>
<td>Q1–Q39</td>
</tr>
</tbody>
</table>

### Critical aspects of evidence

A person who demonstrates competency in this unit must be able to provide evidence of the ability to:

<table>
<thead>
<tr>
<th>Skill</th>
<th>Assessment 1</th>
<th>Assessment 2</th>
<th>Assessment 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>locate, interpret and apply relevant information</td>
<td>Q1–Q33</td>
<td>Q1–Q4</td>
<td>Q1–Q39</td>
</tr>
<tr>
<td>understand fundamental processes, terms, concepts and principles related to residential building construction</td>
<td>Q1–Q33</td>
<td>Q1–Q4</td>
<td>Q1–Q39</td>
</tr>
<tr>
<td>list materials and main equipment commonly used in residential building construction</td>
<td>Q1–Q33</td>
<td>Q4</td>
<td>Q1–Q39</td>
</tr>
<tr>
<td>engage in conversations with others</td>
<td>Q1–Q33</td>
<td>Q1–Q4</td>
<td>Q1–Q39</td>
</tr>
<tr>
<td>generate brief notes on aspects of the residential building industry in relation to:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Processes</td>
<td>Q1–Q33</td>
<td>Q1–Q4</td>
<td>Q1–Q39</td>
</tr>
<tr>
<td>• Materials, and their storage</td>
<td>Q1–Q33</td>
<td>Q1–Q4</td>
<td>Q1–Q39</td>
</tr>
</tbody>
</table>
### Dimensions of competency

<table>
<thead>
<tr>
<th></th>
<th>Assessment 1</th>
<th>Assessment 2</th>
<th>Assessment 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task skills</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Task management skills</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Task contingency skills</td>
<td></td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>Job role/Work environment skills</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
Annex F – Marking guides
Assessment 1 – Materials and construction resource file – Marking guide

<table>
<thead>
<tr>
<th>Learner to complete</th>
<th>Assessor to complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>Assessor:</td>
</tr>
<tr>
<td></td>
<td>Date:</td>
</tr>
<tr>
<td></td>
<td>/ /</td>
</tr>
<tr>
<td>1st submission date:</td>
<td>Assessment: (circle)</td>
</tr>
<tr>
<td></td>
<td>2nd submission due date:</td>
</tr>
<tr>
<td></td>
<td>Competent</td>
</tr>
<tr>
<td></td>
<td>Resubmit</td>
</tr>
<tr>
<td></td>
<td>/ /</td>
</tr>
</tbody>
</table>

**Instructions for learners**

Tick the boxes on the left once you are happy with that aspect of your assessment and before you submit it.

**Instructions for assessors**

Place a cross in the boxes on the right **only** if the item is not acceptable or not competent.

This assessment will assess Elements 1, 2 and 3.

**Presentation**

- Overall neatness ........................................................................................................
- Assessment format correct ........................................................................................
- Assessment submitted on time ..................................................................................
- Marking guide attached .............................................................................................

**File contains several examples or types of:**

1. Footings and floors ..............................................................................................
2. Full masonry walls ...............................................................................................
3. Brick veneer walls .............................................................................................
4. Timber-framed walls ............................................................................................
5. Windows ................................................................................................................
6. Doors and hardware ............................................................................................
7. Roof types ............................................................................................................
8. Roof finishes ........................................................................................................
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>9.</td>
<td>Gutters, fascias and downpipes .................................................................</td>
</tr>
<tr>
<td>10.</td>
<td>Ceiling linings .............................................................................................</td>
</tr>
<tr>
<td>11.</td>
<td>Internal wall linings ....................................................................................</td>
</tr>
<tr>
<td>12.</td>
<td>External wall linings ....................................................................................</td>
</tr>
<tr>
<td>13.</td>
<td>Kitchen cabinets ...........................................................................................</td>
</tr>
<tr>
<td>14.</td>
<td>Bathroom fixtures .........................................................................................</td>
</tr>
<tr>
<td>15.</td>
<td>Laundry fixtures ............................................................................................</td>
</tr>
<tr>
<td>16.</td>
<td>Toilets .............................................................................................................</td>
</tr>
<tr>
<td>17.</td>
<td>Render and plaster .........................................................................................</td>
</tr>
<tr>
<td>18.</td>
<td>Wall and floor tiles .......................................................................................</td>
</tr>
<tr>
<td>19.</td>
<td>Paints ..............................................................................................................</td>
</tr>
<tr>
<td>20.</td>
<td>Taps ..................................................................................................................</td>
</tr>
<tr>
<td>21.</td>
<td>Lights and light switches ..............................................................................</td>
</tr>
<tr>
<td>22.</td>
<td>Power points ...................................................................................................</td>
</tr>
<tr>
<td>23.</td>
<td>Hot water units ..............................................................................................</td>
</tr>
<tr>
<td>24.</td>
<td>Gas meters ......................................................................................................</td>
</tr>
<tr>
<td>25.</td>
<td>Electric meters ...............................................................................................</td>
</tr>
<tr>
<td>26.</td>
<td>Paving ..............................................................................................................</td>
</tr>
<tr>
<td>27.</td>
<td>Landscaping ....................................................................................................</td>
</tr>
<tr>
<td>28.</td>
<td>Fences ..............................................................................................................</td>
</tr>
<tr>
<td>29.</td>
<td>Letterboxes .....................................................................................................</td>
</tr>
</tbody>
</table>

**File contains chart showing:**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>30.</td>
<td>Material ..........................................................................................................</td>
</tr>
<tr>
<td>31.</td>
<td>Trade ...............................................................................................................</td>
</tr>
<tr>
<td>32.</td>
<td>Structural/cosmetic .......................................................................................</td>
</tr>
<tr>
<td>33.</td>
<td>Total number of days trade on site ..............................................................</td>
</tr>
</tbody>
</table>
Note: Your assessor may provide specific notes on your submission as an alternative to completing the feedback section below.

Feedback: ...........................................................................................................................................
...........................................................................................................................................
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Assessment successfully completed:  

Yes    /    No
## Assessment 2 – Variations and construction program – Marking guide

<table>
<thead>
<tr>
<th>Learner to complete</th>
<th>Assessor to complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>Assessor:</td>
</tr>
<tr>
<td></td>
<td>Date:</td>
</tr>
<tr>
<td></td>
<td>/ /</td>
</tr>
<tr>
<td>1st submission date:</td>
<td>Assessment: (circle)</td>
</tr>
<tr>
<td></td>
<td>2nd submission due date:</td>
</tr>
<tr>
<td></td>
<td>(if required)</td>
</tr>
<tr>
<td></td>
<td>Competent</td>
</tr>
<tr>
<td></td>
<td>Resubmit</td>
</tr>
<tr>
<td></td>
<td>/ /</td>
</tr>
</tbody>
</table>

### Instructions for learners

Tick the boxes on the left once you are happy with that aspect of your assessment and before you submit it.

### Instructions for assessors

Place a cross in the boxes on the right only if the item is not acceptable or not competent.

This assessment will assess Elements 1 and 3.

---

### Presentation

- Overall neatness .................................................................
- Assessment format correct ...................................................
- A4 cover sheet ........................................................................
- Assessment submitted on time ..............................................
- Marking guide attached .......................................................  

### Submission contains:

1. List of trades delayed ...........................................................
2. List of trades to return to site ..............................................
3. Activity 2.2 ...........................................................................
4. Activity 17.1 ........................................................................
Note: Your assessor may provide specific notes on your submission as an alternative to completing the feedback section below.

Feedback: ..........................................................................................................................
...........................................................................................................................................
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...........................................................................................................................................

Assessment successfully completed:  Yes / No
Assessment 3 – Selecting construction type and materials for a house – Marking guide

<table>
<thead>
<tr>
<th>Learner to complete</th>
<th>Assessor to complete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>Assessor:</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>1st submission date:</td>
<td>Assessment: (circle)</td>
</tr>
<tr>
<td>/ /</td>
<td>Competent</td>
</tr>
<tr>
<td></td>
<td>Resubmit</td>
</tr>
</tbody>
</table>

Instructions for learners

Tick the boxes on the left once you are happy with that aspect of your assessment and before you submit it.

Instructions for assessors

Place a cross in the boxes on the right only if the item is not acceptable or not competent.

This assessment will assess Elements 1, 2 and 3.

Presentation

- Overall neatness .................................................................
- Assessment format correct ...................................................
- A3 cover sheet ......................................................................
- Assessment submitted on time ...............................................
- Marking guide attached .....................................................

Collage includes the following construction type and materials for a specific house

- 1. Full masonry walls ...........................................................
- 2. Brick veneer walls ...........................................................
- 3. Timber-framed walls .........................................................
- 4. Footings and floors ...........................................................
- 5. Windows ...........................................................................
- 6. Doors and hardware ........................................................
<table>
<thead>
<tr>
<th>7. Roof types</th>
<th>10. Ceiling linings</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. Roof finishes</td>
<td>11. Internal wall linings</td>
</tr>
<tr>
<td>9. Gutters, fascias and downpipes</td>
<td>12. External wall linings</td>
</tr>
<tr>
<td>15. Laundry fixtures</td>
<td>16. Toilets</td>
</tr>
<tr>
<td>17. Render and plaster</td>
<td>18. Wall and floor tiles</td>
</tr>
<tr>
<td>19. Paints</td>
<td>20. Taps</td>
</tr>
<tr>
<td>21. Lights and light switches</td>
<td>22. Power points</td>
</tr>
<tr>
<td>23. Hot water units</td>
<td>24. Gas meter</td>
</tr>
<tr>
<td>25. Electric meter</td>
<td>26. Paving</td>
</tr>
<tr>
<td>27. Landscaping</td>
<td>28. Fences</td>
</tr>
<tr>
<td>29. Letterboxes</td>
<td>30. Collage includes pictures of machinery and equipment used by a particular trade</td>
</tr>
</tbody>
</table>

Trade for 30

Trade for 31

Trade for 32

Trade for 33
34. ..............................................................................................................................................
Trade for 34 .....................................................................................................................................

35. ..............................................................................................................................................
Trade for 35 .....................................................................................................................................

36. ..............................................................................................................................................
Trade for 36 .....................................................................................................................................

37. ..............................................................................................................................................
Trade for 37 .....................................................................................................................................

38. ..............................................................................................................................................
Trade for 38 .....................................................................................................................................

39. ..............................................................................................................................................
Trade for 39 .....................................................................................................................................

Note: Your assessor may provide specific notes on your submission as an alternative to completing the feedback section below.

Feedback: ........................................................................................................................................
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Assessment successfully completed: Yes / No
Annex G – Design and build a house flowchart

Pre-construction

- Client-designer contact
- Brief for design
- Survey
- Design and documentation
- Estimates
- Builders
- Subcontractors
- Quotes
- Contracts
- Construction program and scheduling

Construction

- Site preparation
  - Site set-up
  - Site works
  - Plumbing pre-lay
- Footings
- Floor
- Walls
  - Full masonry
  - Brick veneer
  - Framed
- Ceiling frame
- Roof
- Services rough-in
- Roof finishes
- Roof plumbing
- Linings
  - Render and plaster
  - Plasterboard
- Fixtures and cabinetry
- Finishes
  - Tiling
  - Painting
- Fittings and services
- Complete external works
  - Paving
  - Builder’s clean-up
  - Landscaping
  - Fencing
  - Clothes line
  - Letterbox
- Variations during construction

Post-construction

- Pre-handover inspection
- Handover
- Final completion
Annex H – Personnel involved in residential building processes

Table H.1: Building processes personnel involved in pre-construction, construction and post-construction in the residential building industry.

<table>
<thead>
<tr>
<th>Process</th>
<th>Personnel involved</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pre-construction</strong></td>
<td></td>
</tr>
<tr>
<td>Client contact with designer</td>
<td>Client</td>
</tr>
<tr>
<td></td>
<td>Project home builder, architect, designer/draftsperson</td>
</tr>
<tr>
<td>Preparation of brief for the design</td>
<td>Client</td>
</tr>
<tr>
<td></td>
<td>Project home builder, architect, designer/draftsperson</td>
</tr>
<tr>
<td>Survey</td>
<td>Registered surveyor</td>
</tr>
<tr>
<td>Design and documentation for building approval</td>
<td>Project home builder, architect, designer/draftsperson, council</td>
</tr>
<tr>
<td>Estimates</td>
<td>Project home builder, architect, designer/draftsperson or estimator</td>
</tr>
<tr>
<td>Builders</td>
<td>Project home builders</td>
</tr>
<tr>
<td></td>
<td>Registered builders</td>
</tr>
<tr>
<td></td>
<td>Owner-builders</td>
</tr>
<tr>
<td>Subcontractors</td>
<td>Excavators, concreters, plumbers, electricians, bricklayers, carpenters, renderers, plasterboard installers, roofing finish installers, tilers, painters</td>
</tr>
<tr>
<td>Quotes</td>
<td>Builders, project home builders, subcontractors</td>
</tr>
<tr>
<td>Contracts</td>
<td>Client, builder, project home builder</td>
</tr>
<tr>
<td></td>
<td>Builder, subcontractors</td>
</tr>
<tr>
<td>Construction program and scheduling</td>
<td>Selected builder</td>
</tr>
<tr>
<td>Construction</td>
<td></td>
</tr>
<tr>
<td>------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Site preparation</td>
<td>Builder</td>
</tr>
<tr>
<td></td>
<td>Demolition contractor</td>
</tr>
<tr>
<td></td>
<td>Excavator</td>
</tr>
<tr>
<td></td>
<td>Plumber</td>
</tr>
<tr>
<td>Footings</td>
<td>Reinforcement subcontractor</td>
</tr>
<tr>
<td></td>
<td>Concreter</td>
</tr>
<tr>
<td>Floor</td>
<td>Reinforcement subcontractor</td>
</tr>
<tr>
<td></td>
<td>Concreter</td>
</tr>
<tr>
<td>Walls</td>
<td>Bricklayer</td>
</tr>
<tr>
<td>Ceiling frame</td>
<td>Carpenter</td>
</tr>
<tr>
<td>Roof</td>
<td>Carpenter</td>
</tr>
<tr>
<td>Services rough-in</td>
<td>Plumber, electrician</td>
</tr>
<tr>
<td>Roof finishes</td>
<td>Roof tiler</td>
</tr>
<tr>
<td></td>
<td>Sheet metal roofer</td>
</tr>
<tr>
<td>Roof plumbing</td>
<td>Roof plumber</td>
</tr>
<tr>
<td>Linings</td>
<td>Renderer, plasterboard installer, solid plasterer, wall/ceiling lining subcontractors</td>
</tr>
<tr>
<td>Fixtures and cabinetry</td>
<td>Plumber, cabinetmakers</td>
</tr>
<tr>
<td>Finishes</td>
<td>Tilers, painters</td>
</tr>
<tr>
<td>Fittings and services</td>
<td>Various</td>
</tr>
<tr>
<td>Completion of external works</td>
<td>Builder</td>
</tr>
<tr>
<td>Variations during construction</td>
<td>Client, builder, subcontractors</td>
</tr>
</tbody>
</table>

### Post-construction

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-handover inspection</td>
<td>Client, builder</td>
</tr>
<tr>
<td>Handover</td>
<td>Client, builder</td>
</tr>
<tr>
<td>Final completion</td>
<td>Client, builder</td>
</tr>
</tbody>
</table>
APPLY KNOWLEDGE OF RESIDENTIAL BUILDING PROCESSES AND MATERIALS
CERTIFICATE II IN BUILDING AND CONSTRUCTION (PATHWAY – PARAPROFESSIONAL)
30010

LECTURER’S GUIDE

DESCRIPTION
This lecturer’s guide has been written to support the delivery and assessment of the unit 30010 Apply knowledge of residential building processes and materials from Certificate II in Building and Construction (Pathway – Paraprofessional). The course, and the learner’s guide, focus on the skills and knowledge required as a paraprofessional in the residential building industry.

The lecturer’s guide provides you with the following resources and tools:

• unit delivery strategy
• unit delivery plan
• assessment plan
• assessment instruments and marking keys
• assessment matrix.

Support is also provided through highlighting of any pre-delivery preparation required, and of any specific requirements for each delivery session and assessment.

EDITION
Edition 1, 2012
Unit and course codes updated 2014

COURSE/QUALIFICATION
Certificate II in Building and Construction (Pathway – Paraprofessional)

UNIT
30010 Apply knowledge of residential building processes and materials

RELATED PRODUCTS
BC1936: Apply knowledge of residential building processes and materials – learner’s guide

This resource is one of a series that covers all 12 units of the Certificate II in Building and Construction (Pathway – Paraprofessional) qualification. Please refer to our product catalogue for more information.