UNIT CODE	CPCCBL3012
UNIT TITLE	Construct fireplaces and chimneys
APPLICATION	This unit specifies the skills and knowledge required to construct brick fireplaces and chimneys in various types and styles of buildings. This unit applies to bricklayers and blocklayers who work on new and existing structures. It is suitable for people operating with some autonomy. A person working at this level would be expected to take responsibility for organising and completing tasks assigned to them without needing close supervision. Completion of the general construction induction training program specified by the model Code of Practice for Construction Work is required for any person who is to carry out construction work. Achievement of *CPCCWHS1001 Prepare to work safely in the construction industry* meets this requirement. No licensing, legislative or certification requirements apply to this unit at the time of publication.
PREREQUISITE UNIT	CPCCWHS2001 Apply WHS requirements, policies and procedures in the construction industry
ELEMENTS	PERFORMANCE CRITERIA
Elements describe the essential outcomes.	Performance criteria describe what needs to be done to demonstrate achievement of the element.
1. Prepare for work.	1.1 Select, fit correctly and use personal protective equipment (PPE) appropriate for job. 1.2 Read, interpret and apply fireplace and chimney construction requirements from current plans, specifications, standards and codes. 1.3 Follow requirements in workplace safety and environmental documentation and workplace procedures. 1.4 Use measurements and apply formulas to calculate material quantities. 1.5 Identify potential hazards and determine and implement control measures. 1.6 Select appropriate plant, equipment and tools, check condition and report damage or faults to relevant person.

	1.7 Check conformity of materials against the specifications and place materials in preparation for the work.
2. Set out and construct base and hearth.	2.1 Locate and set out fireplace base to specified size. 2.2 Mix mortar to quality and consistency specifications. 2.3 Lay masonry base level, straight and plumb to the correct gauge and bond.
3. Construct firebox and inner hearth.	3.1 Set out the first course for fire box and jambs to specified dimensions. 3.2 Set out gathering/curve of fireback on floor. 3.3 Construct firebox maintaining gauge, level and plumb to allowable tolerances. 3.4 Form gather with corbelled brickwork to provide the specified throat size. 3.5 Install the lintel at the specified height to meet bearing rules and maintain bond.
4. Form smoke shelf and throat.	4.1 Form smoke shelf to the specified shape with mortar parging. 4.2 Cover finished smoke shelf to protect from damage during construction. 4.3 Check and alter throat size to meet the specified size.
5. Form smoke chamber.	5.1 Lay gathering over/corbelling to specified angle and correct bond. 5.2 Parge smoke chamber to minimum thickness to achieve a smooth mortar finish.
6. Construction flue.	6.1 Lay gathering with directional change to break the light. 6.2 Parge inside of flue.
7. Complete chimney stack.	7.1 Install lead chimney tray at the specified height. 7.2 Extend chimney square and plumb to finished height. 7.3 Lay chimney capping or sand cement flaunching to prevent water intrusion. 7.4 Finish joints to specified profile and depth. 7.5 Clean excess mortar and brush down face work.

	7.6 Lay brickwork hearth and complete to meet Australian Standards.
8. Clean up.	8.1 Clear the work area, and dispose of, reuse or recycle materials following workplace and environmental requirements. 8.2 Clean tools and equipment, check for serviceability and report damage or faults 8.3 Store and secure tools and equipment following workplace procedures.
FOUNDATION SKILLS Candidates require: • technology skills to: o use digital tools and devices to source job information and communicate effectively with others.	
UNIT MAPPING INFORMATION	Supersedes and is equivalent to CPCCBL3012A Construct fire places and chimneys
LINKS	Companion volumes to this training package are available at the VETNet website: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad

TITLE	Assessment requirements for CPCCBL3012 Construct fire places and chimneys

PERFORMANCE EVIDENCE

To demonstrate competency in this unit, a candidate must meet the performance criteria of this unit by constructing a fireplace and chimney for a single storey building.

In doing this, the candidate must:

- install chimney flashing
- install weather proof chimney capping
- comply with fireplace and chimney standards and codes.

KNOWLEDGE EVIDENCE

To be competent in this unit, a person must demonstrate knowledge of:

- terminology relating to fireplace and chimney construction
- current and relevant standards and building codes:
    - minimum and maximum dimensions for components
    - allowable tolerances
    - flashing requirements
- key requirements of the National Construction Code (NCC) relevant to fireplaces and chimneys
- characteristics, applications and limitations of specified materials and products for fireplace and chimney construction:
    - mortar specifications (M code)
    - parging ingredients
    - refractory bricks
- processes and techniques for fireplace and chimney construction:
    - brick bond patterns
    - roof flashing and weathering
- working drawing and specifications
- functional and operational features of plant, equipment and hand and power tools:
    - power assisted tools
- workplace safety:
    - erecting and dismantling work platforms
    - working at heights
    - job safety and environmental analysis (JSEA)
    - exposure to silica
    - exposure to loud noise
- environmental requirements for workplace processes and waste disposal.

ASSESSMENT CONDITIONS	
Assessors must meet the requirements for assessors contained in the Standards for Registered Training Organisations. This unit must be assessed in the workplace or a close simulation reflecting workplace conditions and standards, materials, equipment, activities, responsibilities, procedures, safety requirements and environmental considerations.	
LINKS	Companion volumes to this training package are available at the VETNet website: https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad