

Demonstrate knowledge of timber and other construction materials used in BCATS projects

Level 2

Credits 5

Purpose This unit standard has been designed to be achieved in a building, construction and allied trades skills (BCATS) programme.

People credited with this unit standard are able to: demonstrate knowledge of types and structure of timber; common defects in timber; conversion, treatment, handling and storage of timber; and other construction materials used in BCATS projects.

Subfield Construction Trades

Domain Building, Construction, and Allied Trades Skills

Status Registered

Status date 14 December 2007

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Entry information Open.

Accreditation Evaluation of documentation by NZQA.

Standard setting body (SSB) Building and Construction Industry Training Organisation

Accreditation and Moderation Action Plan (AMAP) reference 0048

This AMAP can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Special notes

- 1 Evidence for achieving credit in this unit standard can be presented in conjunction with meeting the outcomes of other unit standards in the *Building, Construction and Allied Trades Skills* domain or related domains at Level 2.
- 2 Assessment against this unit standard may occur in a wide range of environments, including workplaces, school workshop, work experience workplaces or other training establishments.

- 3 Legislation relevant to this unit standard includes:
Health and Safety in Employment Act 1992;
Health and Safety in Employment Regulations 1995.
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Elements and performance criteria

Element 1

Demonstrate knowledge of types and structure of timber.

Performance criteria

- 1.1 Types of timbers are described.
Range indigenous, exotic, imported, hardwood, softwood.
- 1.2 The parts and structure of a tree are identified.
Range bark, cambium layer, sapwood, heartwood, growth rings, knots.
- 1.3 The strength and working qualities of sawn timber boards are described.
Range tangential, quartersawn.

Element 2

Demonstrate knowledge of common defects in timber.

Performance criteria

- 2.1 Common structural defects in timber are explained.
Range knots, splits, checks, warps.
- 2.2 Common forms of insect and fungal attack are identified and described in terms of the resulting deterioration of timber.
Range common house borer, wet rot.
- 2.3 Common environmental causes of timber deterioration are identified and described in terms of the resulting deterioration of the timber.
Range exposure to weather, moisture fluctuations, bacteria, incorrect storage.

Element 3

Demonstrate knowledge of the conversion, treatment, handling and storage of timber.

Performance criteria

- 3.1 The process of conversion is described.
Range rough sawn, dressed.
- 3.2 Methods of seasoning of timber are described.
Range air dried, kiln dried.
- 3.3 Types of preservation treatment for building timbers are described and the applications of each are explained.
Range Boron salts, Copper Chrome Arsenate (CCA), Light Organic Solvent Preservatives (LOSP).
- 3.4 Safe working and handling procedures when working with timber are explained.
- 3.5 Basic storage and care of timber is explained.

Element 4

Demonstrate knowledge of other construction materials used in BCATS projects.

Range three of – metals, glass, concrete, composite materials, plastics, manufactured boards.

Performance criteria

- 4.1 The structural properties and basic uses of the materials are explained.
- 4.2 Safe working and handling procedures for the materials are explained.
- 4.3 Basic storage and care of the materials are explained.

Please note

Providers must be accredited by NZQA, or an inter-institutional body with delegated authority for quality assurance, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by NZQA before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact the Building and Construction Industry Training Organisation national.office@bcito.org.nz if you wish to suggest changes to the content of this unit standard.