



National Unit Specification: general information

UNIT Carpentry and Joinery: Materials, Products and Finishes
(SCQF level 6)

CODE F6N4 12

SUMMARY

This Unit is suitable for candidates working towards a Modern Apprenticeship in Carpentry and Joinery and will develop the candidate's knowledge and understanding of construction materials, products and finishes. This Unit is designed to provide candidates with an in-depth knowledge of the range of materials, products and finishes used in today's construction industry. It is also designed to provide candidates with an understanding of common defects encountered in domestic construction and appropriate remedial actions.

OUTCOMES

- 1 Accurately describe production methods and uses for a range of construction materials.
- 2 Correctly select suitable materials and finishes for given situations.
- 3 Demonstrate knowledge and understanding of common defects including remedial and preventative procedures.

RECOMMENDED ENTRY

While entry is at the discretion of the centre, candidates undertaking the Professional Development Award in Carpentry and Joinery at SCQF level 6 must meet the requirements of the Modern Apprentices which include being employed in the relevant craft industry.

Administrative Information

Superclass: TE

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CREDIT VALUE

1 credit at SCQF level 6 (6 SCQF credit points at SCQF level 6*).

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

CORE SKILLS

There is no automatic certification of Core Skills or Core Skill components in this Unit.

Opportunities for developing aspects of the following Core Skills are highlighted in Support Notes of this Unit.

- ◆ *Problem Solving at SCQF level 4*
- ◆ *Working with Others at SCQF level 4*
- ◆ *Information and Communication Technology at SCQF level 3*
- ◆ *Numeracy at SCQF level 4*
- ◆ *Communication at SCQF level 4*

National Unit Specification: statement of standards

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Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit Specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

OUTCOME 1

Accurately describe production methods and uses for a range of construction materials.

Performance Criteria

- (a) Accurately describe the formation, manufacture and production of a range of construction materials and products.
- (b) Accurately describe the main use of a range of construction materials and products.

OUTCOME 2

Correctly select suitable materials and finishes for given situations.

Performance Criteria

- (a) Correctly select suitable materials for given situations.
- (b) Correctly select suitable finishes for given situations.

OUTCOME 3

Demonstrate knowledge and understanding of common defects including remedial and preventative procedures.

Performance Criteria

- (a) Correctly identify a range of defects in construction materials, products and finishes.
- (b) Correctly describe the source cause of a range of defects.
- (c) Correctly describe appropriate remedial actions for a range of defects.
- (d) Correctly describe measures to prevent a range of defects.

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EVIDENCE REQUIREMENTS FOR THIS UNIT

Evidence is required to demonstrate that the candidates have achieved this Unit to the standard specified in all the Outcomes and Performance Criteria. All working practices must be in line with relevant and current Health and Safety legislation and regulations. A Risk Assessment and Method Statement must be completed **prior** to any practical activities taking place.

Written and/or oral evidence is required for Outcomes 1 and 3 which demonstrates that the candidate can describe the production methods and uses for a range of construction materials as well as demonstrating knowledge of common defects including remedial and preventative procedures. The evidence for this Outcome will be obtained under closed-book supervised conditions.

Performance evidence for Outcome 2 supplemented with an assessor observation checklist sheet should be used to confirm the candidate has individually met the standards specified in the Performance Criteria and specification.

These Evidence Requirements will be met by the completion of the Training and Assessment Programme (TAP) Carpentry and Joinery.

National Unit Specification: support notes

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This part of the Unit Specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

GUIDANCE ON THE CONTENT AND CONTEXT FOR THIS UNIT

This Unit has been developed as a mandatory Unit in the Professional Development Award in Carpentry and Joinery at SCQF level 6, which is a mandatory component of the Modern Apprenticeship in Carpentry and Joinery.

The successful completion of this Unit will provide the candidate with the required underpinning knowledge and skills relating to manufacturing processes, uses, defects and remedial actions for a range of construction materials.

The Unit would be offered to candidates from the construction and related services industries. The skills and knowledge and understanding are transferable within different working environments but the Unit is primarily aimed at candidates whose normal place of work would be a site, workshop or similar environment.

This Unit deals with the theory and practice associated with the production, selection and performance of a range of construction materials in domestic construction. It is further complemented by Units dealing with related work in Carpentry and Joinery. There would be opportunity to integrate aspects of this Unit with others in the Carpentry and Joinery PDA, eg *Building Craft Science and Mechanics*; *Construction Studies and Procedures*; *Carpentry and Joinery: Window Construction* and *Carpentry and Joinery: Door Construction* at SCQF level 6. It should be delivered as part of a structured programme of training and orientated to the context of the candidate's work and area of responsibility.

Health and Safety and Sustainability are integral and key to the Construction Industry therefore throughout the Unit emphasis will be placed where appropriate on the application of Health and Safety and Sustainability. Safety working practices should be looked at in accordance with current safety codes of practice and regulations. Sustainability should include reference to criteria affecting sustainability, impact of not implementing sustainability on the environment and the legislation promoting sustainability.

National Unit Specification: support notes (cont)

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GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

The following information may be helpful with regard to specific Outcomes.

Outcome 1

The candidate should be introduced to a wide range of construction materials encompassing all aspects of domestic construction. This could be achieved by the use of visual aids and site visits primarily but also with the use of audio visual material, manufacturers catalogues and on-line research. This would provide the opportunity for lecturer led discussions surrounding the materials used in the industry. The production methods of the range of materials should be fully explained with an emphasis on sustainability and re-cycling processes. Materials covered could include: aggregates; stone; bricks; blocks; cements; plasters; mortars; concrete; commercial timbers; glass; manufactured boards; bituminous materials; ferrous and non-ferrous metals; alloys; insulating materials/products; protective coatings; plastics; slates and tiles.

Outcome 2

The candidate should be introduced to the importance of selecting the correct material/s for different situations. The opportunity exists to integrate fully with the SCQF level 6 *Building Craft Science* Unit with regard to the properties of materials and the direct link to suitability of selection. Lecturer led discussion should emphasise the importance of design and material/s selection for the performance of a building in terms of maintenance, efficiency and sustainability. The use of visual aids and, wherever possible, site visits would enhance the delivery of this Outcome.

Outcome 3

It would be envisaged that Outcome 3 and Outcome 2 were integrated, where poor design and selection of materials would be highlighted. This would naturally provide the opportunity to discuss preventative actions and remedial processes.

Where appropriate, opportunities should be taken throughout delivery of this Unit to meet the requirements of the generic Units of the Training and Assessment Programme including:

- ◆ Conform to Efficient Working Practices
- ◆ Conform to General Workplace Safety
- ◆ Move and Handle Resources
- ◆ Confirm Work Activities and Resources for the Work
- ◆ Develop and Maintain Good Working Relationships
- ◆ Confirm the Occupational Method of Work

The candidate should be given the opportunity to further develop their skills through visual aids, electronic presentations, DVDs, e-learning, reference books, classroom exercises and group discussions. This teaching approach should ensure the candidate is acquiring the underpinning knowledge and skills required for the Unit.

National Unit Specification: support notes (cont)

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OPPORTUNITIES FOR CORE SKILL DEVELOPMENT

There are opportunities to develop aspects of the Core Skill of *Problem Solving* at SCQF level 4. Candidates will need to take account of a range of factors in order to correctly select suitable materials and finishes for a range of situations. These could include: weather conditions; design; properties of materials; remedial processes and preventative actions. Individual and group discussions with the assessor will enhance the evaluation of material selection.

There are opportunities for candidates to develop the Core Skill of *Working with Others* at SCQF level 4 in Outcome 3 during discussions surrounding the design of buildings and material selection coupled with the integration with *Building Craft Science Unit*.

Opportunities also arise for candidates to develop the Core Skill of *Information and Communication Technology* at SCQF level 3 by researching, use of spreadsheets, e-learning and e-assessment.

Numeracy skills at SCQF level 4 could be developed through the interpretation of information from 3 dimensional working drawings.

Candidates will have the opportunity to develop *Communication* skills at SCQF level 4 throughout all tasks, as they should be expected to communicate with others using the correct terminology, tone and style suited to the workplace.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Sections 2, 3, 4, 7, 8, 9 and 10 of the Carpentry and Joinery Training and Assessment Programme (TAP), provide detailed assessment material for this Unit. It is advised to use the TAP which has been developed centrally by SQA. Any other instruments of assessment used must be comparable to the TAP and have been through prior verification. It is expected that candidates will be given as much practise as possible, prior to being set assessment tasks.

The candidates' knowledge and understanding of production methods and uses for a range of construction materials will be assessed through a question paper and conducted under controlled, supervised conditions.

A suitable method of assessing Outcomes 2 and 3 would be through an assignment or project which demonstrates the candidate's ability to select suitable materials and finishes for given situations and describe remedial and preventative procedures for defects.

Opportunities for the use of e-assessment

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or e-checklists. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

National Unit Specification: support notes (cont)

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DISABLED CANDIDATES AND/OR THOSE WITH ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website

www.sqa.org.uk/assessmentarrangements