



National Unit Specification: general information

UNIT Bricklaying: Cutting and Building to Rake (SCQF level 6)

CODE F6M6 12

SUMMARY

This Unit is suitable for candidates working towards a Modern Apprenticeship in Bricklaying and will develop the candidates craft skills in building raking brick walling. This Unit is designed to provide candidates with competence in the use of tools and equipment to set out and build raking brickwork and the ability to apply these skills in the workplace. It is also designed to enable candidates to develop their skills and understand and use bricklaying terminology, components, techniques and practices to set out and build raking brickwork.

OUTCOMES

- 1 Demonstrate understanding of terminology, components, resources and construction practice used in raking masonry.
- 2 Cut and build a gable wall to rake.

RECOMMENDED ENTRY

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

CREDIT VALUE

1 credit at Higher (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.*

Administrative Information

Superclass: TG

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National Unit Specification: general information (cont)

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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
- ◆ Numeracy at SCQF level 4
- ◆ Communications 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

Demonstrate understanding of terminology, components, resources and construction practice used in raking masonry.

Performance Criteria

- (a) Identify and Select terminology related to raking masonry correctly.
- (b) Identify and select setting out techniques for raking masonry.
- (c) Identify and select components, suitable resources and construction practices correctly.

OUTCOME 2

Cut and build a gable wall to rake.

Performance Criteria

- (a) Set out wall in accordance with the given specifications.
- (b) Build wall in accordance with the given specifications.
- (c) Comply with current Health and Safety requirements during all work methods and activities.

EVIDENCE REQUIREMENTS FOR THIS UNIT

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

Evidence is required to demonstrate that the candidate has achieved this Unit to the standards specified in all Outcomes and Performance Criteria.

Written and/or recorded oral evidence is required to demonstrate that the candidate has achieved Outcome 1 to the standard specified in the Performance Criteria. Candidates will be required to demonstrate their knowledge of terminology, components, techniques and practices by defining terms, describing setting out techniques and identifying required components and construction practices. This assessment will take the form of a question paper and will be conducted under controlled, open-book supervised conditions.

Product and performance evidence is required to demonstrate that the candidate has achieved Outcome 2 to the standard specified in the Performance Criteria. Candidates will be required to build a cavity in walling. Assessment of this Outcome will be evidenced through observation of work, processes and assessment of the completed workpiece. Candidates must meet the given standards and tolerances during the practical assessment. An assessor observation checklist must be used to record this evidence. Assessment should be conducted under controlled, supervised conditions.

National Unit Specification: statement of standards (cont)

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Outcome 2

Summary of checklist standards (working towards industrial tolerances)	
Item	Measurement of standard
Overall length	± 10mm
Gauge	± 8mm
Level	± 8mm
Plumb each point (brickwork)	± 5mm
Square	± 5mm in 0.6m
Joint thickness	± 5mm
Faceplane (brickwork)	± 8mm
Raking cut line (brickwork)	± 5mm in 1m
Faceplace of raking cuts	± 3mm in 1m
Gauge of raking cuts to main wall	± 2mm
Horizontal DPC tray	Positioned as specified flush with face +2mm. No tears
Cavity insulation ties	Positioned to manufacturer's instructions
Wall ties above DPC tray	Positioned to building regulations
Weep vents	Positioned as specified
Perpend	No deviation exceeding 5mm
Faceplane (blockwork)	± 8mm
Plumb each point (blockwork)	± 8mm
Level (blockwork)	± 8mm
Gauge (blockwork)	± 8mm
Raking cut to blockwork	± 8mm in 1m
Cavity insulation slabs/batts	Positioned to manufacturer's instructions
Face of bricks	Facework clean, minimal smudging, no visual defects
Brickwork round key finish	Full and neat
Blockwork flush from trowel	No open joints
Cavity	Clean with no ties bridged
Overall cavity wall width	± 8mm
Feature	Position as specified
Cutting to feature 45°	± 4mm
Health and safety	Complies at all times
Risk assessment	Safety boots worn at all times Hard hat worn at all times High visibility vest worn at all times All other PPE as risk assessed
Method statement	Working area kept clean at all times Materials stacked safely at all times Tools handled correctly at all times Tools cleaned and stored safely at end of working day

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 Bricklaying at SCQF level 6.

The successful completion of this Unit will provide candidates with the required underpinning knowledge and skills relating to setting out techniques and construction practices associated with cutting and building to rake.

This Unit should 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 construction site or similar environment.

The Unit deals with cutting and building to rake. 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. Aspects of this Unit could be integrated with *Bricklaying: Half Brick Walling* (SCQF level 6), *Bricklaying: Decorative Features* (SCQF level 6), *Bricklaying: Ramp Walling* (SCQF level 6).

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.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

The candidate is required to develop the ability to set out and build to rake in a safe manner at all times and therefore it is anticipated that the majority of the learning will take place in a workshop/site environment.

Practical demonstrations underpinned by effective questioning techniques should focus on key skills, construction practices, techniques and underpinning knowledge related to cutting and building to rake. During the learning process, practical learning is fundamental as candidates must become proficient in terminology and construction practices relevant to cutting and building to rake.

National Unit Specification: support notes (cont)

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

OPPORTUNITIES FOR CORE SKILL DEVELOPMENT

Components of the Core Skill of *Problem Solving* at SCQF level 4 will be developed as the candidate undertakes this Unit. The candidate will be required to mark and set out cutting to rake. Candidates will need to take account of a range of factors in order to work efficiently and safely, such as the choice of tools, appropriate materials and resources, safety issues, safety equipment and sustainability. Individual discussions with assessors will enhance the evaluation of efficient working practices.

Numeracy at SCQF level 4 could be enhanced through the interpretation of information from 3-dimensional working drawings and the practical use of templates and calculation, geometry and measuring scales required for teaching and learning assessments for Outcome 2. There are also numeracy questions to be answered in relation to the calculation of materials required to build the gable end walls.

There will be opportunities for candidates to develop the Core Skills of *Communications* at SCQF level 4. Candidates will have the opportunity to develop written and/or oral communication skills for the knowledge part of the assessment for Outcome 1. As candidates complete practical tasks, 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

Detailed assessment material for this Unit will be found in section five of the Bricklaying Training and Assessment Programme (TAP) Centres may use the instruments of assessment which they consider to be most appropriate but are advised to use the TAP's which have been developed centrally by SQA. Any other instruments of assessment used must be comparable to the TAP and have been through prior verification.

The candidates' knowledge and understanding of terminology, techniques and construction practices and components related to cutting to rake will be assessed through a question paper.

Candidates should be given as much practise as possible in the appropriate bricklaying techniques for building raking, prior to being set the assessment. Evidence will be gathered for Outcome 2 through observation of work processes and assessment of the completed workpieces to ensure that the candidates have met the given standards and tolerances during the practical assessment. An assessor observation checklist must be used to record this evidence.

National Unit Specification: support notes (cont)

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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 communications 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)*.

CANDIDATES WITH DISABILITIES AND/OR ADDITIONAL SUPPORT NEEDS

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering alternative Outcomes for Units. Further advice can be found in the SQA document *Guidance on Assessment Arrangements for Candidates with Disabilities and/or Additional Support Needs* (www.sqa.org.uk).