



## National Unit Specification: general information

**UNIT** Stonemasonry: Timber Frame Construction (SCQF level 6)

**CODE** F6RD 12

### SUMMARY

This Unit is suitable for candidates working towards a Modern Apprenticeship in Stonemasonry and will develop the candidate's craft skills in building snecked walling against a timber frame, use of ventilators, damp proof courses and wall ties. This Unit is designed to provide candidates with competence in the use of tools and equipment to set out and build snecked walling and forming openings 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 stonemasonry terminology, techniques and practices, to set out and build a snecked rubble wall and to carry out science experiments.

### OUTCOMES

- 1 Demonstrate knowledge and understanding of terminology, setting out techniques and construction practices used in stonemasonry.
- 2 Set out and build a snecked rubble wall against a timber frame to a given specification.
- 3 Set out and build ventilators, damp proof course and wall ties.
- 4 Form openings and point snecked wall.
- 5 Conduct two experiments relating to building science and materials.

### RECOMMENDED ENTRY

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

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#### Administrative Information

**Superclass:** TG

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## **National Unit Specification: general information (cont)**

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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
- ◆ *ICT* at SCQF level 3
- ◆ *Numeracy* at SCQF level 4
- ◆ *Communications* at SCQF level 4

## **National Unit Specification: statement of standards**

### **UNIT        Stonemasonry: Timber Frame Construction (SCQF level 6)**

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 knowledge and understanding of terminology, setting out techniques and construction practices used in stonemasonry.

##### **Performance Criteria**

- (a) Define terminology related to timber frame construction correctly.
- (b) Describe setting out techniques correctly.
- (c) Identify and explain construction practices correctly.
- (d) Explain production techniques used for reconstituted, semi dry stone.

#### **OUTCOME 2**

Set out and build a snecked rubble wall against a timber frame to a given specification.

##### **Performance Criteria**

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

#### **OUTCOME 3**

Set out and build ventilators, damp proof course and wall ties.

##### **Performance Criteria**

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

#### **OUTCOME 4**

Form openings and point snecked wall, lay ventilators, damp proof course, and wall ties.

##### **Performance Criteria**

- (a) Set out wall in accordance with the given specification.
- (b) Build wall in accordance with the given specification.
- (c) Maintain a clean work area throughout.
- (d) Comply with Health and Safety requirements at all times.

## **National Unit Specification: statement of standards (cont)**

### **UNIT Stonemasonry: Timber Frame Construction (SCQF level 6)**

#### **OUTCOME 5**

Conduct two experiments relating to building science and materials.

#### **Performance Criteria**

- (a) Conduct one experiment on permability.
- (b) Conduct one experiment on anti-capillary grooves.
- (c) Evaluate and write down conclusions from both experiments.

#### **EVIDENCE REQUIREMENTS FOR THIS UNIT**

These evidence requirements will be met by the completion of the stonemasonry Training and Assessment Programme (TAP).

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

Written and/or oral recorded evidence is required to demonstrate that the candidate has achieved Outcome one to the standard specified in the Performance Criteria. 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 Outcomes 2, 3 and 4 to the standards specified in the Performance Criteria. Candidates will be required to build a snecked rubble wall incorporating all damp proof courses, ventilators, wall ties and holding down straps. Assessment of these Outcomes will be evidenced through observation of work processes and assessment of the completed work pieces. 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.

Outcome 5 should be conducted as an open book assessment with candidates recording findings from experiments.

## National Unit Specification: statement of standards (cont)

**UNIT** Stonemasonry: Timber Frame Construction (SCQF level 6)

**Outcomes 2, 3 and 4**

<b>Summary of standards (working towards industrial tolerances)</b>	
<b>Item</b>	<b>Measurement of standard</b>
Setting out lenth	±8 mm
openings	±5 mm
gauge	±5 mm
level	±5 mm
Plumb each point	±5 mm
Joint thickness	±5 mm
Faceplane	±6 mm
Horizontal DPC	Position as specified, flush with face ±2mm, no tears, minimum 100mm lap
Vertical DPC	Position as specified, flush with reveal ±2mm
Timber frame ties	Position as specified
Anchor ties	Position as specified
Setting out position plumb from fire stop	±3 mm
perpend	No deviation exceeding 5mm
Pre-cast sill projection 50mm	±4 mm
Pre-cast lintel	±4 mm
Weep vents	Position as specified
Face of stone	Clean, minimal smudging, no visual defects
Stone joints	Full and neat
cavity	Clean with no ties bridged ±5mm
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 correctly at all times Tools handled correctly at all times Tools cleaned and stored safely at end of working day

## **National Unit Specification: support notes**

### **UNIT        Stonemasonry: Timber Frame Construction (SCQF level 6)**

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 stonemasonry 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 building snecked rubble against a timber frame building.

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 site, workshop, or similar environment.

The Unit deals with how to build snecked rubble against an existing timber frame building. 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.

#### **GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT**

The candidate should be given the opportunity to further develop the skills of bed spreading and jointing/pointing stone techniques used in the stonemasonry craft. The use of a spirit level should be encouraged for plumbing the decorative stonework. The terms used for snecked rubble and pointing timber frame construction techniques should be integrated to the practical assessments as it is undertaken, and the basic principles of such explained as the work piece is being built. This teaching approach should ensure the candidate is acquiring the underpinning knowledge required for the Unit.

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

## National Unit Specification: support notes (cont)

### UNIT Stonemasonry: Timber Frame Construction (SCQF level 6)

#### OPPORTUNITIES FOR CORE SKILL DEVELOPMENT

Components of the Core Skill of *Problem Solving* at SCQF level 4, such as Planning and Organising and Critical Thinking, will be developed as candidates undertake this Unit. 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, safety issues, safety equipment and sustainability. Individual discussions with assessors will enhance the evaluation of efficient working practices.

There are opportunities for candidates to develop the Core Skill of *Working with Others* at SCQF level 4, particularly in Outcomes 2, 3 and 4 as this practical assessment may be carried out working in pairs, as part of teaching and learning. Candidates can agree responsibilities and provide support and information to each other during the assessments. After assessment, they should be encouraged to consider how effectively they supported each other.

Opportunities also arise for candidates to develop the Core Skill of *Information and Communication Technology* at SCQF level 3 by researching Health and Safety legislation affecting their area of work.

*Numeracy* at SCQF level 4 will be developed through the interpretation of information from 3 dimensional working drawings and the practical use of calculation and measuring scales required for teaching and learning assessments for Outcomes 2 and 3.

There will be opportunities for the candidate to develop the Core Skill of *Communication* 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 5 of the Stonemasonry 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 stonemasonry 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.

The candidate's knowledge and understanding of terminology, techniques and construction practices of stonemasonry will be assessed through a question paper.

Candidates should be given as much practise as possible in building snecked rubble and pointing techniques, prior to being set the assessment. Evidence will be gathered for Outcomes 2, 3 and 4 through observation that the candidates have met the given standards and tolerances during the practical assessments. An assessor observation checklist can be used to record this evidence.

## **National Unit Specification: support notes (cont)**

### **UNIT        Stonemasonry: Timber Frame Construction (SCQF level 6)**

#### **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)*.

#### **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](http://www.sqa.org.uk/assessmentarrangements)