



National Unit Specification: general information

UNIT Stonemasonry: Cutting Return Heads at Right Angles to Adjacent Face (SCQF level 6)

CODE F6PS 12

SUMMARY

This Unit is suitable for candidates working towards a Modern Apprenticeship in Stonemasonry and will develop the candidates' craft skills in working return heads at 90 degrees to the face of the stone to a specified size. The Unit is designed to provide candidates with competence in the use of tools to enable them to apply these skills in the workplace. It is also designed to enable candidates to develop their skills and understand and use of Stonemasonry terminology, techniques and practices.

OUTCOMES

- 1 Identify and select the range of building stones available.
- 2 Select, maintain and use masonry tools for specific tasks and identify sequencing.
- 3 Set in draughts in bottom bed of stone at right angles to plane face, and form a return head.
- 4 Hew the stone down to required length and height as per specification.

RECOMMENDED ENTRY

While entry 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 Apprenticeship which include being employed in the relevant craft industry.

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 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
- ◆ *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

Identify and select the range of building stones available.

Performance Criteria

- (a) Demonstrate an understanding of stone geology.
- (b) Identify different types of building stones correct.
- (c) Identify different building stones into their basic rock groups.

OUTCOME 2

Select, maintain and use masonry tools for specific tasks and identify sequencing.

Performance Criteria

- (a) Select tools appropriate for the given task.
- (b) Tools use in accordance with recognised practice.
- (c) Maintain tools correctly.
- (d) Comply with current Health and Safety legislation during all work methods and activities.

OUTCOME 3

Set in draughts in bottom bed of stone at right angles to the plane face, and form a return head.

Performance Criteria

- (a) Cut marginal draughts at right angles to the plane face on bottom bed.
- (b) Pitch the stone to an even flat surface to form a return head.
- (c) Comply with current Health and Safety legislation during all work methods and activities.

OUTCOME 4

Hew stone down to required size as per specification.

Performance Criteria

- (a) Measure the bed height to top bed and cut top bed.
- (b) Cut marginal draughts at right angles to bottom bed and plane face to form return head.
- (c) Measure the length of stone and cut bottom bed.
- (d) Comply with current Health and Safety legislation during all work methods and activities.

National Unit Specifications: statement of standards (cont)

UNIT Stonemasonry: Cutting Return Heads at Right Angles to Adjacent Face (SCQF level 6)

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 the Outcomes and Performance Criteria.

Written and/or oral recorded evidence is required to demonstrate that the candidate has achieved the knowledge elements of Outcome 1 to the standard set out in the Performance Criteria. Assessment will take the form of a multiple choice question written paper which will be conducted closed-book.

Performance evidence supported with an assessor observation checklist must be used to show that the candidate has achieved the practical elements of the Unit to the standard specified in Outcomes 2 -4. Each candidate will be observed in their ability to carry out given tasks correctly and safely. Assessment of these Outcomes will be carried out in a workshop under supervised conditions.

Candidates must:

- ◆ Select appropriate tools for the task in hand.
- ◆ Maintain these tools to a good standard.
- ◆ Adopt the correct sequencing for hewing stone.
- ◆ Cut four return heads at right angles to adjacent face of stone.
- ◆ Finished stone to measure 350 mm x 300 mm on face and 200mm thick. (Naturally bedded).
- ◆ Produce technical information on a range of building stones.

Throughout all of the practical elements of this Unit candidates must:

- ◆ Select, use, clean and store appropriately all tools used.
- ◆ Work in accordance with the current health and safety legislation.

The evidence will be produced on several assessment occasions and should be carried out under supervised conditions. Candidates must be observed in the attainment of all Outcomes and Performance Criteria in the statement of the standards. An assessor observation checklist must be retained as evidence that the candidate has achieved all Outcomes and Performance Criteria.

National Unit Specifications: statement of standards (cont)

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Outcomes 3 & 4

Summary of standards (working towards industrial tolerances)	
Item	Measurement of standard
Minimum stone size	350 mm x 300 mm x 200 mm
Marking on Guidelines	±2 mm
Draughts square off face	±2 mm
Surface true and square	±2 mm
Sequence of roughing down correct	Yes/no
Return head square to face	±2 mm
Draught to given dimensions	±2 mm
Risk Assessment	Safety Boots worn at all times Airstream Helmet worn at all times Boilersuit 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 at Stored safely at the end of working day.

National Unit Specification: support notes

UNIT Stonemasonry: Cutting Return Heads at Right Angles to Adjacent Face (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 the process of using various tools for hand hewing, taking site measurements, identification and drawing of basic masonry elements, Identification of seen and unseen work, produce technical information on a range of building stones and return four heads at right angles to adjacent face on stone.

The Unit should be offered to candidates from the construction and related service 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.

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 achievement of skills and underpinning knowledge required for this Unit will be assisted by the provision of information sources in the form of:

- ◆ Oral and /or written instructions.
- ◆ graphic and photographic materials.
- ◆ technical information.
- ◆ Hands-on task on uses of tools on stone to create return heads at right angles to stone face.

The teaching approach should ensure the candidate is gains the underpinning knowledge required for the Unit. Teachers/Lecturers should demonstrate practical activities step by step until the candidate is competent to attempt the task under assessment conditions.

Effective questioning should be encouraged throughout, focusing on skills, stonemasonry practices and underpinning knowledge related to cutting return heads at right angles to adjacent face. The requirement to adopt safe working practices and comply with safety legislation must be emphasised throughout.

National Unit Specification: support notes (cont)

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Opportunities should be taken throughout the 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 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, 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.

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

There will be opportunities for candidates 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 Outcomes 3 and 4. 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 OF THIS UNIT

Detailed assessment material for this Unit will be found in section 3 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.

National Unit Specification: statement of standards (cont)

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Candidates should be given as much practice as possible in the use of tools required for cutting return heads at right angles to adjacent face, prior to being set the assessment.

Evidence will be gathered for all Outcomes through observation that the candidates have met the given standards and tolerances during the practical assessment. An assessor observation checklist can be used to record this evidence.

In order to allow candidates to achieve all Outcomes and Performance Criteria candidates should be given a clear brief detailing the nature of exercises involved.

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