



National Unit specification

General information

Unit title: Stonemasonry: Basic Banker Skills (SCQF level 5)

Unit code: HA2X 45

Superclass: TG

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Unit purpose

This Unit is suitable for learners with no experience in the subject area and introduces learners to basic Stonemasonry banker skills. Designed to develop the learner's ability to produce basic stonemasonry components and a range of surface finishes. It also develops knowledge and understanding of finished dimensional stone used in construction stonemasonry repair and new build.

Throughout this Unit, learners will develop the skills to identify any potential hazards and will adhere to health and safety, sustainability and waste management regulations and legislation at all times.

Outcomes

On successful completion of the Unit the learner will be able to:

- 1 Demonstrate basic knowledge and understanding of stonemasonry banker work.
- 2 Produce basic stonemasonry components in natural stone.
- 3 Produce a range of different tooled surfaces to natural stone.

Credit points and level

1 National Unit credit at SCQF level 5: (6 SCQF credit points at SCQF level 5)

Recommended entry to the Unit

While entry is at the discretion of the centre, basic *Numeracy*, *Communication* and *Problem Solving* would be beneficial.

National Unit specification: General information (cont)

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Core Skills

Opportunities to develop aspects of Core Skills are highlighted in the Support Notes for this Unit specification.

Achievement of this unit gives automatic certification of the following Core Skills component:

Complete Core Skill	None
Core Skill component	Critical Thinking at SCQF level 5

Context for delivery

If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed within the subject area of the Group Award to which it contributes.

Equality and inclusion

This Unit specification has been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners should be taken into account when planning learning experiences, selecting assessment methods or considering alternative evidence.

Further advice can be found on our website www.sqa.org.uk/assessmentarrangements.

National Unit specification: Statement of standards

Unit title: Stonemasonry: Basic Banker Skills (SCQF level 5)

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 basic knowledge and understanding of stonemasonry banker work.

Performance Criteria

- (a) Identify suitable mechanical methods of lifting and transporting stone components.
- (b) Identify methods of safely stacking and protecting finished hewn stone components.
- (c) Identify the tools and equipment required to work stone.
- (d) Determine the correct tools and sequence required to take a stone out of twist.
- (e) Determine the correct sequence to work a splay in stone.
- (f) Identify a selection of surface finishes applied to stone.
- (g) Identify what H & S measures should be in place for the working of stone.
- (h) Carry out a risk assessment for the working of stone.

Outcome 2

Produce basic stonemasonry components in natural stone.

Performance Criteria

- (a) Produce a true face plane on a natural sedimentary rock type.
- (b) Produce a splay moulding down one edge of a sawn six side stone component.
- (c) Select, handle, use and store tools correctly.

Outcome 3

Produce a range of different tooled surfaces to natural stone.

Performance Criteria

- (a) Produce a tooled margin on a stone component.
- (b) Produce a range of different surface finishes to a stone component.
- (c) Select, handle and use tools correctly.

National Unit specification: Statement of standards (cont)

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Evidence Requirements for this Unit

Learners must adhere to relevant Health and Safety regulations and legislation relating both to working practices within the construction environment, as well as those specific to any practical task they are requested to carry out (such as emphasising the importance of selecting and using the correct PPE at all times).

Evidence is required to demonstrate that learners have achieved all Outcomes and Performance Criteria.

For Outcome 1 written and/or oral recorded evidence is required to demonstrate learners' knowledge of basic stonemasonry banker work, that being work carried out on a banker table, with traditional stonemasonry tools and materials. Assessment will be conducted under controlled, closed-book, supervised conditions. The Risk Assessment can be carried out prior to undertaking practical tasks and/or assessment.

For Outcomes 2 and 3 product and performance evidence is required to demonstrate that the learner has achieved all Outcomes to the standards specified or given by centres and in the Performance Criteria. Learners will be required to produce a basic stonemasonry component incorporating a worked squared face plane, tooled margins, a worked splay moulding, and a range of surface finishes used in Stonemasonry.

Assessment of these Outcomes will be evidenced through observation of work processes and assessment of completed work model. Learners must meet the given standards and tolerances during the practical assessments. An assessor observation checklist must be used to record this evidence. Assessment should be conducted under controlled, supervised conditions.

An example of the standards required for the observation checklist in Outcomes 2 and 3 are listed as a combined assessment but can be devised by the centre based on the work model, materials specification and health and safety requirements:

Summary of standards (working towards industrial tolerances)	
Item	Measurement of standard
Produce a true face plane on a natural sedimentary rock type	+/-3 mm
Produce a splay moulding down one edge of a sawn six side stone component	+/-3 mm
Produce a tooled margin on a stone component. (25 mm)	+/-2 mm uniform spacing
Produce a range a different surface finishes to a stone component	(x2) Yes/No
Select, handle and use tools correctly	Yes/No
Adhere to health and safety requirements at all times	Yes/No
Risks assessed	Yes/No

National Unit specification: Statement of standards (cont)

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A suggested minimum stone size for the assessment would be 300 mm x 250 mm x 250 mm with a worked splay detail at 15 mm x 15 mm down one arris. Learners can then apply two surface finishes to the face and return head.

At all times learners must comply with current health, safety and welfare, sustainability and waste management requirements and legislation. This includes the selection and use of appropriate personal protective equipment.



National Unit Support Notes

Unit title: Stonemasonry: Basic Banker Skills (SCQF level 5)

Unit Support Notes are offered as guidance and 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

The content and context of this Unit is aimed at learners who are interested in pursuing a career in the craft of Stonemasonry.

The learner successfully completing this Unit will be given knowledge and understanding of terminology, construction practices and in the use of tools and equipment for producing a basic stone component and gaining basic banker skills. Learners will produce a true face plane on a small piece of stone, a skill that all stonemasons must be able to do in order to produce components from quarried rock. They will work a splay and is a commonly found mould/detail hewn to many stones and used the sequencing of producing classic mouldings. Producing a range of surface finishes introduces to the learner the range of surface finishes that can be worked on squared stone blocks for both, new build and the replication of finishes for repair.

The learning environment for this Unit will be a combination of classroom and workshop based learning. The knowledge element of this Unit would be taught in a classroom environment and put into practice in the workshop in conjunction with practical Outcomes.

The content of the Unit is set at an introductory level so that learners can develop basic knowledge and understanding of banker work and the ability to produce basic stone components in a construction environment and can be used as a progression pathway into a Vocational Qualification in Stonemasonry.

Health and safety, sustainability and waste management are vital to working practices within the construction industry. Wherever appropriate during the delivery of this Unit, an emphasis will be placed on the correct application of health and safety, sustainability and waste management principals and processes, in accordance with current codes of practice and legislation.

National Unit Support Notes (cont)

Unit title: Stonemasonry: Basic Banker Skills (SCQF level 5)

This Unit does not fully comply with the following National Occupational Standard although does contain elements of:

COSVR188 — Produce standard stonemasonry components.

Guidance on approaches to delivery of this Unit

The training for this Unit should take place in a separate training area independent of the productive work environment and using dedicated equipment and resources. This should cover theoretical and practical principles of working and finishing stone before the learner carries out any practical application of knowledge.

Delivery centres should note that many of the building stones in Scotland if used in the delivery of the Unit contain high proportions of Silica (Quartz) and may be designated as a hazardous substance under the **Control of Substances Hazardous to Health Regulations 2002**. A suitable and sufficient assessment of the hazards, risks and then control measures should be undertaken and implemented.

Centers using sandstones containing Silica are advised to seek guidance from the HSE website regarding control of this substance. Serious consideration should be given as to whether alternative stone such as limestone may be a suitable way of eliminating exposure to or minimising exposure to acceptable levels.

For all Outcomes, delivery should be set at introductory level and note that most students may be inexperienced to workplace or hazardous environments, so Health and Safety should be strictly adhered to. Any potential hazards, risks and the control methods should be conveyed to all learners/learners.

All knowledge element Outcomes can be delivered in a classroom environment with quality and up to date resources. A site visit to look at a variety of building showing finely worked examples of hewn and finished stone would be beneficial.

For all practical based activities a learner centred learning and teaching approaches are encouraged with learners actively participating in practical activities after lecturer demonstration of key construction and hewing practices and principles. Emphasis should be placed on the importance of being able to work safely, select and use tools appropriate to the task, work on the principle of quality rather than quantity and following instructions as given by delivery centre staff.

Demonstrations by the lecturer on sequencing, use of tools and equipment and how to lift and handle stone should be conveyed at all time prior to learners being given tasks and/or assessments.

National Unit Support Notes (cont)

Unit title: Stonemasonry: Basic Banker Skills (SCQF level 5)

Guidance on approaches to assessment of this Unit

Centres may use the method of assessment which they consider to be most appropriate but are encouraged to use the Training Assessment Programme (TAP) developed centrally by SQA. It is expected that learners will have to demonstrate current knowledge and understanding of safe working practice and risk assessment methods, etc prior to being set the assessment tasks.

Knowledge and Understanding of the processes involved in *Stonemasonry: Basic Banker Skills (SCQF level 5)* should be assessed before any practical assignments are carried out by learners. This will include assessment of a learner's ability to prepare the work area for laying modular pavement.

Practical assignments should be carried out under supervised conditions and recorded in an assessor observation/operational checklist. Assessments should confirm that a learner has the ability to safely lay modular pavement using designated machinery or equipment correctly and safely, whilst adhering to current statutory Health and Safety regulations and legislation.

Adherence to current statutory working regulations and Health and Safety procedures will be observed during the practical exercise carried out by the learner towards all Outcomes.

Detailed assessment material for this Unit will be found in the relevant 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 which has been developed centrally by SQA. Any other instruments of assessment used must be comparable to the TAP and have been prior verified.

Opportunities for 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 social software. Centres which wish to use e-assessment must ensure that the national standard is applied to all learner evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. The most up-to-date guidance on the use of e-assessment to support SQA's qualifications is available at www.sqa.org.uk/e-assessment.

Opportunities for developing Core and other essential skills

Components of the Core Skill of *Problem Solving* at SCQF level 5, Critical Thinking and Planning and Organising, may be developed as learners undertake this Unit. Learners will need to take account of a range of factors in order to work efficiently and safely, such as the interpretation of drawings, choice of tools and appropriate materials, application of scientific principles, risk assessments, health, safety and welfare and a sustainable approach. Individual discussions with tutors may enhance the evaluation of productive work practices.

National Unit Support Notes (cont)

Unit title: Stonemasonry: Basic Banker Skills (SCQF level 5)

There are opportunities for learners to develop the Core Skill of *Numeracy* at SCQF level 5, this could be enhanced through the knowledge evidence in determining the correct sequence to work a splay in stone and identifying a selection of surface finishes applied to stone.

There are opportunities for learners to develop the Core Skill of *Communication* at SCQF level 5. As learners complete practical tasks they need to communicate effectively with others using the correct terminology, tone and style suited to the workplace.

This unit has the Critical Thinking component of Problem Solving embedded in it. This means that when learners achieve the Unit, their Core Skills profile will also be updated to show they have achieved Critical Thinking at SCQF level 5.

History of changes to Unit

Version	Description of change	Date

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General information for learners

Unit title: Stonemasonry: Basic Banker Skills (SCQF level 5)

This section will help you decide whether this is the Unit for you by explaining what the Unit is about, what you should know or be able to do before you start, what you will need to do during the Unit and opportunities for further learning and employment.

This Unit is an introduction to basic banker work and skills in the craft of Stonemasonry, the craft of being able to build and repair natural stone and work natural stone into geometric shapes typically undertaken in the Construction and Repair and Maintenance sectors.

This Unit will develop your ability to undertake risk assessments for the working and handling of stone components, and develop your ability to understand the tools and materials to produce a basic worked natural stone component that would be used in a construction or repair context. It also develops knowledge and awareness of the various materials, tools and equipment used in the stonemasonry craft.

This Unit is suitable if you wish to gain a basic understanding and knowledge of stonemasonry work in repairing and maintaining stone structures through knowledge and understanding and practical tasks and assessments.

On completion of this Unit you will be able to:

- 1 Demonstrate the knowledge and understanding of basic stonemasonry banker work.
- 2 Produce basic stonemasonry components in natural stone.
- 3 Produce a range of different tooled surfaces to natural stone.

Assessment is through closed-book multiple-choice questions and in the completion of practical assignments.

Elements of Core Skills, *Problem Solving, Numeracy and Communication* will be developed in successful completion of this Unit, but they will not be assessed or certified.

This Unit is valuable in the potential for development of employability and citizenship in the new build and repair and maintenance construction sectors. Employers are actively seeking learners that can demonstrate relevant knowledge, understanding and competency, which can be gained in the completion of this Unit.

This unit has the Critical Thinking component of Problem Solving embedded in it. This means that when you achieve the Unit, your Core Skills profile will also be updated to show you have achieved Critical Thinking at SCQF level 5.