



Higher National Unit specification

General information for centres

Unit title: Bricklaying: Setting Out and Establishing Levels

Unit code: F8MK 34

Unit purpose: This Unit is designed to enable the candidate to develop their knowledge, understanding and skills relevant to setting out and the establishing of levels. The candidate will demonstrate their understanding of techniques and practices as well as their practical abilities in the setting out and the establishing of levels.

On completion of the Unit the candidate should be able to:

- 1 Explain techniques used to set out a building and transfer levels from a given datum.
- 2 Set out a building and also establish and transfer levels from a given datum.

Credit points and level: 1 HN credit at SCQF level 7: (8 SCQF credit points at SCQF level 7*)

**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.*

Recommended prior knowledge and skills: Access to this Unit is at the discretion of centres. However it is recommended that candidates have completed the Professional Development Award in Bricklaying at SQF level 6 or have the equivalent level of industrial experience and prior learning.

Core Skills: There are opportunities to develop the Core Skills of *Communication*, *Numeracy*, *Working with Others* and *Problem Solving* all at SCQF level 5 and *Information and Communication Technology* at SCQF level 4 in this Unit, although there is no automatic certification of Core Skills or Core Skills components.

Context for delivery: If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed in the subject area of the Group Award to which it contributes. This Unit forms part of the Professional Development Award in Bricklaying at SCQF level 7 and is aimed at candidates following a career in brickwork and with current industrial experience.

Higher National Unit specification: General information for centres (cont)

Unit title: Bricklaying: Setting Out and Establishing Levels

Assessment: The candidate will be given the opportunity to enhance their skills and knowledge in bricklaying by learning about advanced setting out and levelling in domestic construction. Techniques and practices used to set out and transfer levels should be integrated in the practical tasks undertaken. The principles and techniques should be explained throughout the practical activities.

This Unit is assessed on the candidates' performance of setting out and establishing a level from a given datum and the ability to meet the Evidence Requirements in all Outcomes.

In order to achieve this Unit, candidates are required to present sufficient evidence that they have met all the Knowledge and/or Skills elements for each Outcome. Details of these requirements are given for each Outcome.

The assessment instruments used should follow the general guidance offered by the Scottish Qualifications Authority (SQA) assessment model and an integrative approach to assessment is encouraged. (See references at the end of support notes).

Evidence will be gathered through an assignment for Outcome 1 and observation of work processes and assessment of completed work. Assessment should be carried out under controlled, supervised conditions. Candidates must achieve all of the Knowledge and/or Skills and Evidence Requirements specified for each Outcome to gain this Unit. Centres may use the instrument of assessment which they consider to be most appropriate but are advised to use the Bricklaying Training and Assessment Programme (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.

Accurate records should be made of the assessment instruments used showing how evidence is generated for each Outcome and giving marking schemes, checklists and recorded candidate feedback. Records of candidates' achievements should be retained. These records must be made available for external verification.

Higher National Unit specification: statement of standards

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The sections of the Unit stating the Outcomes, Knowledge and/or Skills, and Evidence Requirements are mandatory.

Outcome 1

Explain techniques used to set out a building and transfer levels from a given datum.

Knowledge and/or Skills

- ◆ Setting out techniques for setting out and establishing of levels
- ◆ On site techniques used for the setting out and establishing of levels
- ◆ Principles to setting out and establishing of levels
- ◆ Safe Working Practices
- ◆ Sustainability/Site Waste Management
- ◆ Knowledge of modern setting out and levelling equipment

Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ explain the sequence of operations in setting out and establishing of levels
- ◆ compare and contrast on site methods of setting out and establishing of levels
- ◆ outline the principles used for the setting out and establishing of levels
- ◆ identify safe working practices relevant to setting out and establishing of levels
- ◆ outline methods used to minimise waste and onsite disposal
- ◆ compare and contrast modern methods of setting out and establishing of levelling equipment

All the Evidence Requirements must be met and all items in the knowledge and skills covered. Evidence should be gathered through an assignment outlining the processes, techniques, health and safety and sustainability requirements related to setting out and establishing of levels. Assessment should be conducted under open-book supervised conditions.

Assessment Guidelines

In the assessment candidates will be required to complete an assignment based on drawings and specifications for an actual work project. This could be conducted as an in class assignment lasting up to three hours.

Higher National Unit specification: statement of standards (cont)

Unit title: Bricklaying: Setting Out and Establishing Levels

Outcome 2

Set out a building and also establish and transfer levels from a given datum.

Knowledge and/or Skills

- ◆ Setting out techniques for a domestic building
- ◆ Ability to set out and establish/transfer levels from a given datum
- ◆ Safe Working Practices
- ◆ Sustainability/Site Waste Management
- ◆ Working to specifications/tolerances

Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ set out a domestic building
- ◆ establish levels
- ◆ transfer levels
- ◆ follow current safe working practices
- ◆ minimise the waste of materials throughout practical work
- ◆ work to specified tolerances identified in the specification

The following will assist the assessor in judging the candidate performance against the Evidence Requirements

The selection of equipment is appropriate to the task	as specified
The sequence of setting out is appropriate	as specified
Checks for accuracy are carried out correctly.	Observed throughout
Corner profiles are set up correctly.	Observed throughout
Corners are established correctly from setting out lines.	Observed throughout
Lines are set to corner profiles correctly.	Observed throughout
The instrument is appropriately sited.	Observed throughout
Equipment is handled correctly	Observed throughout
Setting up the instrument is demonstrated correctly	Observed throughout
Datum/bench mark is correctly identified	Observed throughout
Levels are established accurately	Observed throughout
Readings are taken, and recorded, accurately	± 3mm
Reduced levels are calculated correctly	± 3mm
Arithmetical checks are carried out correctly	Observed throughout
Work methods and activities satisfy safety regulations	Observed throughout
Wears appropriate Personal Protective Equipment (PPE)	at all times
Current Health and Safety legislation	complies at all times

Higher National Unit specification: statement of standards (cont)

Unit title: Bricklaying: Setting Out and Establishing Levels

Evidence will be gathered through observation of work processes and assessment of the completed work. Assessment should be carried out under controlled, supervised conditions. In order to achieve this Outcome, candidates are required to present sufficient evidence that they have met all the Knowledge and/or Skills elements. An assessor observation checklist should be completed to ensure that the candidate has met the required specification and tolerances and this observation checklist should be retained as evidence.

Assessment Guidelines

This Outcome is assessed on the candidates' actual performance of setting out and establishing/transferring levels to a given specification and required tolerances.

Candidates should be provided with drawings and specifications for the practical task. Assessment should be carried out in a suitable workshop environment. Timing for this assessment should be determined prior to commencement. An observation checklist should be completed to ensure the candidate has evidenced all the knowledge and skills included in this Outcome to the specifications and tolerances required.

Administrative Information

Unit code: F8MK 34

Unit title: Bricklaying: Setting Out and Establishing Levels

Superclass category: TG

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History of changes:

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Higher National Unit specification: support notes

Unit title: Bricklaying: Setting Out and Establishing Levels

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 an optional Unit in the Professional Development Award in Bricklaying at SCQF level 7 and may be delivered in a sequence suitable to individual candidates and centres.

This Unit is designed to enable the candidate to develop their knowledge, understanding and skills relevant to setting out and establishing levels in domestic construction.

Candidates following a career in brickwork and with current industrial experience will benefit from undertaking this Unit.

The knowledge and skills for this Unit should be incorporated with modern methods of setting out and establishing levels in domestic construction and applied where possible. Terminology commonly associated with bricklaying should also be used throughout this Unit.

It is vitally important that candidates gain an understanding and knowledge of the sequencing of operations with regard to setting out and establishing levels in domestic construction.

Current Health and Safety, sustainability and waste management issues should be fully emphasised throughout the delivery of this Unit.

Working to specified tolerances and methods of checking completed work should be demonstrated and undertaken by the candidate.

Guidance on the delivery and assessment of this Unit

The principles and methods of setting out and establishing levels in domestic construction should be demonstrated to the candidate before summative assessment takes place.

The differing constraints candidates could encounter on site with various construction methods with regard to setting out and establishing levels in domestic construction should be fully explained.

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.

Working tolerances should be explained as being the minimum standard which will be accepted and candidates should be encouraged to evaluate their own work.

Higher National Unit specification: support notes (cont)

Unit title: Bricklaying: Setting Out and Establishing Levels

Opportunities for developing Core Skills

Communication skills at SCQF level 5 may be developed by the completion of the assignment for Outcome 1 and formative assessments undertaken prior to summative assessment.

Working with others at SCQF level 5 could be developed when working in pairs when setting out and transferring of levels in domestic construction. 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.

Information and Communication Technology at SCQF level 4 may be developed by the candidates' carrying out individual research of modern and traditional setting out and transferring of levels in domestic construction techniques, health and safety legislation and sustainability relating to the task.

Problem Solving at SCQF level 5 could be developed as candidates compare and contrast modern and traditional setting out and transferring of levels in domestic construction techniques. 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.

Numeracy will be developed at SCQF level 5 when taking off dimensions from working drawings, measuring, calculating and setting out.

Open learning

Although this Unit could be delivered by distance learning, it would require a considerable degree of planning by the centre to ensure the sufficiency and authenticity of candidate evidence. Arrangements would have to be made to ensure that:

- ◆ the practical activity in outcome 2 is supervised by a responsible person and clearly recorded (using an assessment checklist, or on video) for the assessor
- ◆ the assessor is, at some point able to question the candidate on the performance (face to face, by telephone, online)
- ◆ the open-book assignment for outcome 1 is conducted in a supervised environment

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

General information for candidates

Unit title: Bricklaying: Setting Out and Establishing Levels

This Unit is designed to develop your practical skills and knowledge of complex setting out and transferring of levels in domestic construction. You will develop your understanding of modern and traditional practices and techniques and comply with sustainability issues and current Health and Safety legislation throughout the Unit.

You will have to demonstrate the required techniques in setting out and transferring of levels in domestic construction and demonstrate your understanding of the traditional techniques and modern techniques of setting out and transferring of levels in domestic construction.

You will learn about sustainability issues and how new materials, techniques and systems can have an impact on improving the sustainability in general and you will comply with current Health and Safety regulations and legislation throughout.

Outcome 1

Explain and illustrate techniques used to set out a building also establish and transfer levels from a given datum.

You will be assessed by the completion of an assignment in which you will be required to describe in detail and illustrate the methods used to set out and transfer levels in domestic construction. You will give detail sequence of operations required to set out and transfer levels in domestic construction.

The assessment for this Outcome will be open-book and will be carried out in a supervised environment. You will have access to your own notes that you have prepared personally for your own use. You will not be permitted to bring textbooks, handouts or other materials that you have not prepared yourself.

Outcome 2

Set out a building and also establish and transfer levels from a given datum.

You will be assessed in your ability to:

- ◆ set out a domestic building
- ◆ establish levels
- ◆ transfer levels
- ◆ follow current safe working practices
- ◆ minimise the waste of materials throughout practical work
- ◆ work to specified tolerances identified in the specification

You will be assessed in supervised workshop conditions to specified tolerances contained in an observation checklist. These tolerances should be fully explained and available prior to you commencing the assessment. You will be required to work individually for the assessment and where required in pairs. You will receive both oral and written feedback on your performance from the assessor.

There are opportunities to develop the Core Skills of *Communication*, *Numeracy*, *Working with Others* and *Problem Solving* all at SCQF level 5 and *Information and Communication Technology* at SCQF level 4 in this Unit, although there is no automatic certification of Core Skills or Core Skills components.