



National Unit specification: general information

Unit title: Wall and Floor Tiling: Hand Fixing Using Sand and Cement Mortar

Unit code: H007 12

Superclass: TG

Publication date: November 2011

Source: Scottish Qualifications Authority

Version: 01

Summary

This Unit is suitable for candidates undertaking a Modern Apprenticeship in Wall and Floor Tiling and will develop the candidate's craft skills in the preparation of backgrounds and tiles for fixing with sand and cement mortar. Candidates will be required to hand fix tiles to three patterns using sand and cement mortar. This Unit requires the candidate to grout and finish the tiled areas. It is also designed to develop candidates underpinning knowledge and understanding of the materials, preparation methods and tools and equipment used in hand fixing using sand and cement mortar.

Outcomes

- 1 Demonstrate knowledge and understanding of the materials, preparation methods, tools and equipment used in relation to hand fixing using sand and cement mortar.
- 2 Prepare background and tiles.
- 3 Fix battens and set out background.
- 4 Fix tiles to given patterns using sand and cement mortar.
- 5 Grout and finish the tiled area.

Recommended entry

While entry is at the discretion of the centre, candidates undertaking the Professional Development Award in Wall and Floor Tiling at SCQF level 6 must meet the requirements of the Modern Apprentices which include being employed in the relevant craft industry. It is recommended that candidate have completed *Wall and Floor Tiling: Cement Rendering for Tile Work* prior to attempting this Unit.

General information (cont)

Unit title: Wall and Floor Tiling: Hand Fixing Using Sand and Cement Mortar

Credit points and level

1 National Unit 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

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

There is no automatic certification of Core Skills or Core Skill components in this Unit.

National Unit specification: statement of standards

Unit title: Wall and Floor Tiling: Hand Fixing Using Sand and Cement Mortar

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 the materials, preparation methods, tools and equipment used in relation to hand fixing using sand and cement mortar.

Performance Criteria

- (a) Identify materials used in hand fixing tiles.
- (b) Identify preparation methods used in hand fixing tiles.
- (c) Identify tools and equipment used in hand fixing tiles.

Outcome 2

Prepare background and tiles.

Performance Criteria

- (a) Check background for plumb correctly.
- (b) Check background for contamination and soundness correctly.
- (c) Control background suction correctly.
- (d) Soak and stack tiles correctly.
- (d) Comply with current health and safety regulations in all activities.

Outcome 3

Fix battens and set out background.

Performance Criteria

- (a) Fix tile batten correctly.
- (b) Manufacture thickness piece correctly.
- (c) Mark centre and plumb lines accurately.
- (d) Comply with current health and safety regulations in all activities.

National Unit specification: statement of standards (cont)

Unit title: Wall and Floor Tiling: Hand Fixing Using Sand and Cement Mortar

Outcome 4

Fix tiles to given patterns using sand and cement mortar.

Performance Criteria

- (a) Fix tiles using sand and cement mortar correctly.
- (b) Use thickness piece correctly.
- (c) Fix tiles in the correct sequence.
- (d) Comply with current health and safety regulations in all activities.

Outcome 5

Grout and finish the tiled area.

Performance Criteria

- (a) Mix grout correctly.
- (b) Apply grout correctly.
- (c) Remove grout residue correctly.
- (d) Check wall is free from grout holes and bloom.
- (e) Comply with current health and safety regulations in all activities.

National Unit specification: statement of standards (cont)

Unit title: Wall and Floor Tiling: Hand Fixing Using Sand and Cement Mortar

Evidence Requirements for this Unit

Evidence is required to demonstrate that the candidates have achieved this Unit to the standard specified in all the Outcomes and Performance Criteria. All working practices must be in line with relevant and current Health and Safety legislation and regulations.

Outcome 1

Written and/or oral evidence is required to show that the candidate has achieved the standards specified in the Performance Criteria in Outcome 1. Assessment of the underpinning knowledge will be carried out using a question paper. This must be carried out under closed-book supervised conditions.

Outcomes 2, 3, 4, and 5

Product and performance evidence supplemented with an assessor observation checklist is required to show that the candidate has achieved all Outcomes to the standards specified in the Performance Criteria. Candidates will be observed to show that they can prepare, set out, tile and finish walls using sand and cement mortar. Candidates should fix a minimum of three different tile patterns of no less than 0.8 m² including:

- ◆ Risbond
- ◆ Broken Bond
- ◆ Risbond frame with insert tiling on 45° angle

National Unit specification: statement of standards (cont)

Unit title: Wall and Floor Tiling: Hand Fixing Using Sand and Cement Mortar

Summary of standards	
Item	Measurement of standard
Background surface	Prepared, checked for plumb, flat and square
level/set out wall area	As per drawing/instruction
Tile batons fixed	level
Sand and cement mortar	3:1 ratio, suitable consistency
Tiles soaked/drained	Suction controlled
Tiles fixed	Fully bedded, joints ± 1 mm of specified width
Tolerance	± 6 mm in 1 m
Grout	Full, uniform neat appearance
Surface finish	Thoroughly cleaned on completion
Risk assessment	Safety boots, hand protection, hard hats, hi-vis vests worn at all times.
Method statement	Working area kept clean at all times. Materials and tools requisitioned and handled correctly at all times. Tools cleaned and stored safely at end of working day. Health and Safety applies at all times.

Assessment of this Unit should be carried out when the candidate has received sufficient training and is deemed ready to be assessed.

These Evidence Requirements will be met by the completion of the Training and Assessment Programme (TAP) in Wall and Floor Tiling.

National Unit specification: support notes

Unit title: Wall and Floor Tiling: Hand Fixing Using Sand and Cement Mortar

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 Wall and Floor Tiling at SCQF level 6, which is a mandatory component of the Modern Apprenticeship.

This Unit would 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. It should be delivered as part of a structured programme of training and orientated to the context of the candidates work and area of responsibility.

The successful completion of this Unit will provide candidates with the required underpinning knowledge and skills relating to materials, tools and equipment and methods used to prepare and tile walls using sand and cement mortar. Candidate will be required to hand fix three patterns and grout the completed tile work.

The context of this Unit allows for a holistic integrated approach for other Units within the PDA in Wall and Floor Tiling. Therefore there are opportunities to integrate aspects of this Unit with *Wall and Floor Tiling: Repair and Restoration*.

Health and Safety and Sustainability are integral and key to the Construction Industry and so 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 legislation affecting the conservation of the environment and its relevance to this trade and to the construction industry in general. Attention should also be drawn to the dangers of not implementing this legislation.

Guidance on learning and teaching approaches for this Unit

Learning and teaching for this Unit should be a combination of workshop and classroom learning.

Candidates should be made aware of the different materials tools and equipment used in hand fixing tiles. The correct methods of preparing backgrounds and tiles should be emphasised, with the basic principle of suction control explained as the candidate prepares the background and tiles in the workshop.

The critical importance of the correct sequences used in hand fixing should be emphasised during the practical activities.

National Unit specification: support notes (cont)

Unit title: Wall and Floor Tiling: Hand Fixing Using Sand and Cement Mortar

It is recommended that candidates practice their skills in a workshop environment with the relative underpinning knowledge taught both in the workshop and classroom. The candidate should be given the opportunity to further develop their skills through visual aids, electronic presentations, reference books, classroom exercises and group discussions..

Candidates will be required to wear appropriate Personal Protective Equipment (PPE) whilst carrying out the practical activities, keep a clean working area and adopt safe working practices throughout all practical activities.

It is recommended that candidates should work individually to carry out all Outcomes.

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

Guidance on approaches to assessment for this Unit

Centres are advised to use the Wall and Floor Tiling Training and Assessment Programme (TAP) which has been developed centrally by the SQA. Any other instruments of assessment used must be comparable to the TAP and have been through prior verification.

Section 5 of the Wall and Floor Tiling TAP provides detailed assessment material for this Unit. It is expected that candidates will be given as much practice as possible and should be deemed competent prior to being set the assessment tasks contained within the TAP.

Outcome 1

A suitable method of assessing Underpinning knowledge would be through the use of multiple-choice questions.

Outcomes 2, 3, 4 and 5

The candidates' ability to prepare, set out the background and fix the tile battens will be assessed through practical tasks.

An assessor observation checklist can be used to record evidence of the candidates' ability fix tiles using sand and cement mortar to three set patterns and to grout and finish the completed tile work. The candidate must be provided with all the tools, materials and equipment to complete the practical tasks.

National Unit specification: support notes (cont)

Unit title: Wall and Floor Tiling: Hand Fixing Using Sand and Cement Mortar

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 social software. 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)*.

Opportunities for developing Core Skills

The Core Skill of *Problem Solving* could be developed to SCQF level 4. As candidates undertake this Unit they 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 (ICT)* to SCQF level 3 by researching materials and tools and equipment used and the Health and Safety legislation affecting their area of work.

Numeracy skills could be developed to SCQF level 3 through the calculation of material quantities required for tiling the given patterns in Outcome 4.

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

History of changes to Unit

Version	Description of change	Date

© Scottish Qualifications Authority 2011

This publication may be reproduced in whole or in part for educational purposes provided that no profit is derived from reproduction and that, if reproduced in part, the source is acknowledged.

Additional copies of this Unit specification can be purchased from the Scottish Qualifications Authority. Please contact the Business Development and Customer Support team, telephone 0303 333 0330.