



National Unit specification: general information

Unit title: Jewellery: Piercing and Inlay (SCQF level 5)

Unit code: H1KK 11

Superclass: JH

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Summary

This is an optional Unit in the National Certificate in Jewellery at SCQF level 6. It is also suitable for use as a free standing Unit. It is designed to enable candidates to develop the skills and techniques which will allow them to use different types of appropriate equipment to cut and pierce materials in complex ways. It is intended for use within the context of the manufacture of jewellery and/or silverwares. This Unit is suitable for candidates who are undertaking the study of this subject for the first time or wish to obtain knowledge of piercing and inlay for personal interest.

Outcomes

- 1 Follow instructions for cutting and piercing complex components according to brief.
- 2 Use complex cutting techniques to create interlocking components.
- 3 Prepare components for further construction.
- 4 Create jewellery or silverwares using interlocking components.

Recommended entry

Entry is at the discretion of the centre. Candidates doing this Unit do not need any prior knowledge or experience of metalwork or the manufacture of jewellery or silverwares. However, good hand-skills will be an advantage. This Unit may usefully be taught as a continuation of the work done in H09R 11 *Jewellery: Piercing*.

National Unit specification: general information (cont)

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Credit points and level

2 credits at SCQF level 5(12 SCQF credit points at SCQF level 5*)

**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

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 4

There are also opportunities to develop aspects of Core Skills which are highlighted in the Support Notes of this Unit specification.

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

Follow instructions for cutting and piercing complex components according to a given brief.

Performance Criteria

- (a) Select materials for cutting appropriate to a given brief.
- (b) Select piercing saw blades and saw frames appropriate to a given brief.
- (c) Transfer patterns accurately to selected material in preparation for cutting.
- (d) Use safe working practices.

Outcome 2

Use complex cutting techniques to create interlocking components.

Performance Criteria

- (a) Cut inlay components accurately, relative to each other according to a given brief.
- (b) Fit inlay components together accurately according to a given brief.
- (c) Use safe working practices.

Outcome 3

Prepare components for further construction.

Performance Criteria

- (a) Finish components suitably for further assembly.
- (b) Prepare sites for the joining of inlay components for further assembly.
- (c) Use safe working practices.

Outcome 4

Create jewellery or silverwares using interlocking components.

Performance Criteria

- (a) Join inlay components together in a manner appropriate to the materials chosen.
- (b) Finish work in a manner appropriate to the materials used.
- (c) Use safe working practices.

National Unit specification: statement of standards (cont)

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Evidence Requirements for this Unit

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

Using safe working practices, the candidate must produce three different samples of inlaid components by using piercing techniques, evidencing accurate straight-line cutting and curved-line cutting, both internally and externally. These samples produced must conform accurately to the given instruction brief which should include acceptable tolerances and timescales.

The candidate should finish these samples to a standard where they are suitable for further use as components of finished items of jewellery or silverware. Pattern transfer marks should be removed according to the material used and the intended component. Cut edges should be finished according to the material chosen and the intended use.

The candidate should demonstrate an understanding of the importance of using the correct blade for different materials and patterns and should demonstrate an understanding of the relationship between the size of hole drilled and the saw blade used for internal piercing.

The evidence can be produced over a period of time and may be generated as appropriate to the progress of the candidate.

Centres must be satisfied that the evidence submitted is the work of individual candidates.

National Unit specification: support notes

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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 80 hours.

Guidance on the content and context for this Unit

It is envisaged that this Unit be taught as part of a broader jewellery course.

Candidates require no previous workshop or metalworking abilities in order to access the Unit although the introductory Unit H09R 11 *Jewellery: Piercing* could serve as a useful precursor.

Health and safety issues should be covered as part of the overview of the Unit.

This Unit is a base-level introduction to the fundamentals of jewellery manufacture and it could usefully be taught in conjunction with H09S 11 *Jewellery: Marking Out*, which focuses on the processes of pattern transfer and marking out, required by Outcome 1 or H09W 12 *Jewellery: Polishing*, which focuses on the processes of material finishing, required by Outcome 4.

It is suggested that a blended approach should be adopted to delivering this Unit and that a mixture of brief demonstrations should be precursory to as much practical bench-based learning as possible, with embedded safe working practices. The candidate should be encouraged to see the importance of piercing as a key skill for the manufacture of jewellery. Candidates should be encouraged to find a way of working which suits their individual needs (for example, using supplementary lenses or left-handed saws and pegs) and should be allowed to find ways of working which are comfortable to them.

This Unit aligns to elements of the National Occupational Standards for Jewellery from Creative and Cultural Skills as follows:

- J2.1 Contribute to keeping the workshop tidy and safe;
- J2.2 Read jewellery manufacture or silversmithing drawings;
- J2.3 Mark out and measure materials for jewellery or silverware components;
- J2.5 Cut and pierce jewellery or silverware components;
- J2.6 File jewellery or silverware components.

- J3.2 Produce jewellery, silverware or engraving from detailed drawings and specifications;
- J3.3 Mark out and measure materials for jewellery manufacture or Silversmithing;
- J3.5 Saw and pierce jewellery or silverware components;

- J4.1 Prepare and maintain the general workshop environment;
- J4.2 Research, develop and produce drawn plans for precious metals.

National Unit specification: support notes (cont)

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Guidance on learning and teaching approaches for this Unit

It is envisaged that the teaching of this Unit should be primarily practical with an emphasis on the candidates learning by practising the techniques required.

Demonstrations by tutors and one-to-one instruction and guidance would be an important part of the delivery and candidates could be encouraged to explore the techniques as part of their own personal development as designer-makers. Candidates should be encouraged to be using 4/0 saw blades or finer by the end of the Unit, but satisfactory performance can be achieved with coarser blades.

It is envisaged that the Unit would be taught in a jewellery studio or workshop and that each candidate would have a bench equipped with a bench peg, adequate lighting and access to marking out equipment in addition to the absolute requirement of the Outcomes for a piercing saw frame, drills and blades.

Candidates should be encouraged to understand the importance of using the correct blade for different materials and patterns and should understand the relationship between the size of hole drilled and the saw blade used for internal piercing.

At all times, candidates should be encouraged to use materials economically and with care for environmental issues *and safe working practices*.

Guidance on approaches to assessment for this Unit

The Unit should usefully be taught within the context of commercial jewellery manufacturing, with absolute tolerances and applied timescales to each of the projects. Assessed projects should reflect commercial constraints.

Candidates could be given specific projects to ensure uniformity or could be given self-directed project, the end products of which reflect the requirements of the Outcomes.

Suggested tolerances would be of around 0.1mm deviation from any pattern and timescales should be set realistically according to the projects given.

The Unit should be assessed after a period of tuition and the candidate should be allowed to practice the techniques before assessment. Safe working practices should be adhered to at all times.

Outcome 1: Given or self-generated brief; checklist and discussion/observation to ensure that analysis of the brief is accurate and the correct tools and methods are selected for the tasks.

Outcome 2: Product evidence in the form of cut shapes which demonstrate cutting of straight and curved lines and both internal and external shapes to the tolerances noted above.

Outcome 3: Product evidence in the form of interlocking shapes which are permanently joined together by appropriate means. These items should be produced to the tolerances noted above.

National Unit specification: support notes (cont)

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Outcome 4: Product evidence in the form of cut and pre-polished shapes which demonstrate the finishing of work appropriate to the use of the shape (either for polishing as a finished piece of jewellery or for further construction work).

It is envisaged that the Unit would be taught as part of a holistic programme in which the Outcomes could be completed as part of a cross-assessed package of other related Units. Although assessment could be completed with one single piece of work, a more suitable method would be to develop a range of exercises which build in complexity as the candidate progresses — for example, straight-line cutting only; straight-line cutting with internal shapes; curved-line cutting only; curved-line cutting with internal shapes; cutting involving all aspects; cutting using 4/0 blades — giving a portfolio of pieces which could be assessed individually if required.

A variety of materials could be included in the process, from wood and plastic forms inlaid into metal to 'marriage of metals' work using one metal inlaid into another.

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

This Unit will teach the candidate how to cut metal accurately to a given pattern using a variety of workshop techniques and tools.

Candidates will:

- ◆ Follow instructions for cutting and piercing complex components according to brief.
- ◆ Cut shapes for complex jewellery or silverware components.
- ◆ Use complex cutting techniques to create inlaid components.
- ◆ Finish components for pre-polishing or further construction.

As candidates are doing this Unit they will be developing aspects of the Core Skills in *Problem Solving, Working with Others, Numeracy and Communication*.

This Unit has the Critical Thinking component of Problem Solving embedded in it. This means that when candidates achieve the Unit, their Core Skills profile will also be updated to show they have achieved Critical Thinking at SCQF level 4.

National Unit specification: support notes (cont)

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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
02	Core Skills Component Critical Thinking at SCQF level 4 embedded.	10/10/2012

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