



## **National Unit specification: general information**

**Unit title:** Jewellery: Metal Forming (SCQF level 6)

**Unit code:** H1KC 12

**Superclass:** JH

**Publication date:** October 2012

**Source:** Scottish Qualifications Authority

**Version:** 02

### **Summary**

This Unit is suitable for candidates who have no prior experience of metal forming techniques. It gives the candidate an introduction to metal forming through investigation sources and techniques. The Outcomes ask candidates to produce a range of references, techniques and a design for a specified design brief. Candidates who achieve this Unit should have the ability to apply knowledge of metal forming to any brief.

The Unit is particularly suitable for those candidates wishing to embark upon a career in jewellery design and/or manufacture.

### **Outcomes**

- 1 Explore a range of tools and equipment to develop a variety of metal forming techniques.
- 2 Produce final design ideas to a specified design brief.
- 3 Produce metal formed articles to the specified design brief.

### **Recommended entry**

While entry is at the discretion of the centre, it would be beneficial for candidates to have attained one of the following, or equivalent:

- ◆ Art and Design at SCQF level 4 or above
- ◆ Analytical Drawing 1

## General information (cont)

**Unit title:** Jewellery: Metal Forming (SCQF level 6)

### Credit points and level

2 National Unit credits at SCQF level 6 (12 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

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

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**

**Unit title:** Jewellery Techniques: Metal Forming (SCQF level 6)

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**

Explore a range of tools and equipment to develop a variety of metal forming techniques.

#### **Performance Criteria**

- (a) Identify different metal forming techniques and their use.
- (b) Select a variety of tools and metal forming techniques for a given brief.
- (c) Briefly describe the metal forming techniques and choice of tools.
- (d) Produce a variety of metal samples.
- (e) Describe the different types of metals and their forming properties.

### **Outcome 2**

Produce final design ideas to a specified design brief.

#### **Performance Criteria**

- (a) Produce a wide range of design developments from source material.
- (b) Investigate a variety approaches, methods of construction, metals and shapes.
- (c) Produce designs for objects that shows an awareness of metal forming.

### **Outcome 3**

Produce metal formed articles to the specified design brief.

#### **Performance Criteria**

- (a) Select the appropriate metal and equipment for the specified design.
- (b) Produce a metal formed articles based on the specified design requirements.
- (c) Demonstrate an awareness of craftsmanship, function, scale and finish.

## **National Unit specification: statement of standards (cont)**

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### **Evidence Requirements for this Unit**

Evidence is required to demonstrate that the candidates have gained appropriate knowledge and understanding to produce all that is required to attain the Outcomes.

Product evidence, supported by written and/or oral evidence will be produced which will show the candidate has achieved all three Outcomes. The candidate will demonstrate an understanding of different methods of metal forming tools and techniques.

Evidence for all three Outcomes can be achieved through a holistic approach based on the design and the production of a metal formed object which fulfils all the Outcomes.

- ◆ The production of sketches, rough design ideas and design development pages in sketchbook using selected source material.
- ◆ A variety of approaches to design development and evidence of a variety of media in design development should be evident in sketchbook.
- ◆ The final product will be based on one piece, however if the candidate design is not substantial enough then a collection of pieces should be produced.
- ◆ This will be at the discretion of the assessor and should take into account the depth of investigation that has been carried out by each individual candidate.

### **Outcome 1: Written and/or oral evidence**

To a given brief, evidence must be produced initially by candidate creating a portfolio of evidence as a result of investigation to provide information on:

- ◆ different types of metal and their working properties
- ◆ variety of tools and techniques
- ◆ at least four metal samples with written evidence on six techniques
- ◆ the technique and tools used, their use in metal forming
- ◆ the care of tools and equipment involved

### **Outcome 2: Product evidence**

To a given brief, the candidate will be required to produce:

- ◆ At least three design ideas for Outcome 2 which show an awareness of metal forming.
- ◆ A final design for one of the ideas.

### **Outcome 3: Product evidence**

From the final design brief, the finished object should fulfil the identified requirements and is functional, and finished to a high standard meeting the following criteria:

- ◆ The piece should form the main element of the Unit and the time spent on it should reflect this accordingly.
- ◆ The final piece should be well finished and polished, fit for purpose, no evidence of excess solder, file marks or fire stain

## **National Unit specification: support notes**

### **Unit title:** Jewellery Techniques: Metal Forming (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 80 hours.

### **Guidance on the content and context for this Unit**

This is a mandatory Unit of the National Certificate in Jewellery at SCQF level 6.

Candidates should have prior knowledge of Art and Design. The purpose of the Unit is to explore the use of metal forming tools and techniques for the design and manufacturing of Jewellery. The candidates will be able to produce pieces of jewellery using metal forming techniques.

The aim of the Unit is to cover the skills and knowledge required to produce items of jewellery using metal forming tools and techniques. The candidate will be introduced to the types of metal and related tools used to form jewellery pieces. Candidates will be given the opportunity to develop an understanding of the types of metals used and their properties relating to forming, also the selection process for such metals.

The Unit has been designed to align to the National Occupational Standards for Jewellery from Creative and Cultural Skills.

### **Guidance on learning and teaching approaches for this Unit**

For each Outcome, the tutor should provide information and guidance on the appropriate tools and techniques used within the design and manufacture of jewellery in relation to metal forming.

Candidates should be encouraged to explore and develop the related skills and knowledge required to apply metal forming techniques correctly and in a safe manner.

#### **Outcome 1**

Practical, tutor led, activities demonstrating metal forming techniques and the use and care of basic forms of equipment, eg fly press, doming punches and blocks, metal stakes and triblets, forging hammers, pliers, cutters, drills, piercing saw, files, soldering equipment, polishing tools

## National Unit specification: support notes

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### Outcome 2

A design brief should be set for a metal formed article, eg coffee spoon, serving spoon, piece of jewellery.

Candidates should be made aware of different design styles by looking at several jewellery designers.

Oral presentations, by the candidate, to the class will help build confidence and an understanding of others work.

Construction notes throughout the sketchbook would enhance the development pages.

Use learning experiences from Outcome 1 to produce final design ideas.

The final designs should be neatly drawn and be a conclusion of the design development pages.

### Outcome 3

The production of final pieces should be well finished and polished according to the candidates design.

They should be fit for purpose, with no evidence of excess solder, file marks or fire stain.

The final object fulfils the design brief, is functional, and finished to a high standard.

The Unit should be taught in an integrated manner and overall the three Outcomes could be complemented by:

- ◆ Exhibit of examples of metal formed objects, source material, design development pages and final designs, technical notes
- ◆ Candidate activities should be centred on an assignment and the production of a portfolio of evidence showing a understanding of the techniques demonstrated
- ◆ The lecturer will have exercises that will explore various ways of developing a technique and the use appropriate equipment
- ◆ Design development work; look at galleries, other designer's work, ideas for source material
- ◆ The production of the final metal object will be candidate led on a one to one with lecturer

## National Unit specification: support notes

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### Guidance on approaches to assessment for this Unit

Evidence is required to demonstrate that the candidates have gained appropriate knowledge and understanding to produce all that is required to attain the Outcomes.

For Outcome 1 the candidate will be required to produce both product evidence, supported by written and/or oral evidence. For this Outcome candidates will have a portfolio with evidence of appropriate metal forming techniques, tools and equipment and can be achieved by covering the following:

Production of copper samples showing the following techniques:

- ◆ fly pressing
- ◆ doming
- ◆ forging
- ◆ use of swage block
- ◆ scoring and folding
- ◆ chasing and repousse

The tutor can demonstrate the use of tools and equipment relevant to each technique.

The candidate should have at least four metal samples with written evidence on all six techniques.

Describing the technique and tools used, its use in metal work and the care of tools and equipment involved.

For Outcomes 2 and 3, the candidate should produce final design ideas and a final design brief to provide the details for the production of a final piece of jewellery. The candidate should cover:

- ◆ The candidate will select source material appropriate to the design brief
- ◆ Develop a range of ideas
- ◆ Select one idea and develop its potential for an item of jewellery
- ◆ Produce a final design idea relevant to design brief

This will be produced in a sketchbook.

The final piece should form the main element of the Unit and the time spent on it should reflect this accordingly. If the candidate design is not substantial enough then a collection of pieces should be produced.

This will be at the discretion of the lecturer and should take into account the depth of investigation that has been carried out by each individual candidate.

The tutor should have examples of sketchbooks previous work, visits jewellery galleries, And encourage the candidates to look at metal formed articles on websites



## National Unit specification: support notes

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The given brief will provide candidate with:

- ◆ The production of sketches, rough design ideas and design development pages in sketchbook using selected source material
- ◆ A variety of approaches to design development and evidence of a variety of media in design development should be evident in sketchbook

For both Outcomes 2 and 3 the candidates should be assessed by an on-going review of design development and interim presentations of selected evidence. The candidate's final assessment will be the successful completion of a metal formed object which covers all the Outcomes.

This Unit can be assessed using a holistic approach in the form of an observation checklist for each candidate outlining criteria for each learning Outcome

### 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)*.

### Opportunities for developing Core Skills

There is no automatic certification of Core Skills or Core Skill components in this Unit, however, the following may be considered:

- ◆ *Problem Solving* may be developed through interpreting a design brief, design development, technical notation.
- ◆ *Numeracy* may be developed through calculation of metal quantity required for design construction.
- ◆ *Communication* may be developed through oral feedback to the class on the progression of their work, research.
- ◆ *Information and Communication Technology* may be developed through gathering of technical information, design source work and research.
- ◆ *Working with Others* may be developed through the studio/workshop which enables the candidate to work with others.

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 5.

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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](http://www.sqa.org.uk/assessmentarrangements)

## History of changes to Unit

Version	Description of change	Date
02	Core Skills Component Critical Thinking at SCQF level 5 embedded.	10/10/2012

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