# Level 2 Diploma in Jewellery Manufacturing (7679-02)

July 2011 Version 1.0







#### Qualification at a glance

| Subject area                   | Jewellery Manufacturing                                      |
|--------------------------------|--|
| City & Guilds number           | 7679   |
| Age group approved             | 16+  |
| Assessment                     | Portfolio of evidence  |
| Support materials              | Centre handbook  |
| Registration and certification | Consult the Walled Garden/Online<br>Catalogue for last dates |

| Title and level                               | City & Guilds number | Accreditation number |
|---|----------------------|----------------------|
| Level 2 Diploma in Jewellery<br>Manufacturing | 7679-02              | 600/1625/5           |



#### **Contents**

| 1          | Introduction   | 4        |
|------------|--|----------|
| 2          | Centre requirements  | 6        |
| 3          | Delivering the qualification   | 7        |
| 4          | Assessment   | 8        |
| 5          | Units  | 11       |
| Unit 201   | Contribute to keeping the workshop tidy and safe jewellery, silversmithing and allied trades                   | in<br>12 |
| Unit 202   | Interpret jewellery manufacture or silversmithing drawings   | 14       |
| Unit 203   | Mark out and measure materials for jewellery and silverware components   | 16       |
| Unit 204   | Know the properties of common precious metals and alloys used in jewellery manufacture or silversmithing       | 18       |
| Unit 205   | Use tools to cut and pierce jewellery or silverware components   | 21       |
| Unit 206   | Use tools to file jewellery or silverware componer   | nts23    |
| Unit 207   | Use tools to produce formed jewellery or formed silverware components  | 25       |
| Unit 208   | Use equipment to permanently join jewellery or silverware components   | 27       |
| Unit 209   | Use hand and mechanical techniques to polish and finish jewellery or silverware components                     | d<br>29  |
| Unit 210   | Use tools to produce hand engraving on jewellery silverware products   | or<br>31 |
| Unit 211   | Use techniques to identify and secure stone in settings in jewellery or silverware products                    | 33       |
| Unit 212   | Identify and explain methods and tools used in vitreous enamelling to produce jewellery or silverware products | 34       |
| Unit 213   | Identify how new and emerging technologies may impact on working practices in the jewellery industry           | 36       |
| Appendix 1 | Relationships to other qualifications  | 37       |
| Appendix 2 | Sources of general information   | 38       |

#### 1 Introduction



This document tells you what you need to do to deliver the qualification:

| Area  | Description  |
|---|--|
| Who is the qualification for?                           | It is for candidates who work or want to work as Jewellery Makers in the Jewellery manufacturing sector. This level is aimed at those learners who wish to enter a career in the Goldsmithing sector including many of the Allied trades. The qualification will provide proof of a basic practical ability, knowledge and understanding of a craft at a recognised standard, which will be attractive to any employer looking to take on an apprentice or improver. |
| What does the qualification cover?                      | It allows candidates to learn, develop and practise the skills required for employment and/or career progression in the Jewellery manufacturing sector. Practical skills are introduced and demonstrated for the learner to achieve a standard of competence. Underpinning this is an understanding of good workshop practice, ability to understand related Health & Safety procedures, and theoretical aspects of the skills.                                      |
| Is the qualification part of a framework or initiative? | This qualification is part of the Jewellery manufacture framework  |

#### Structure

To achieve the **Level 2 Diploma in Jewellery Manufacture**, learners must achieve **45** credits from the 13 mandatory units. All units are mandatory.

| Unit<br>accreditation<br>number | City &<br>Guilds<br>unit | Unit title  | GLH | Credit<br>value |
|---------------------------------|--------------------------|---|-----|-----------------|
| D/502/6009                      | 201                      | Contribute to keeping the workshop tidy and safe in jewellery, silversmithing and allied trades | 15  | 3               |
| A/502/6034                      | 202                      | Interpret jewellery manufacture or silversmithing drawings                                      | 12  | 2               |
| A/502/6048                      | 203                      | Mark out and measure materials for jewellery and silverware components                          | 10  | 2               |

| Unit<br>accreditation<br>number | City &<br>Guilds<br>unit | Unit title   | GLH | Credit<br>value |
|---------------------------------|--------------------------|--|-----|-----------------|
| T/502/6047                      | 204                      | Know the properties of common precious metals and alloys used in jewellery manufacture or silversmithing       | 31  | 4               |
| K/502/6093                      | 205                      | Use tools to cut and pierce jewellery or silverware components   | 29  | 5               |
| F/502/6102                      | 206                      | Use tools to file jewellery or silverware components   | 21  | 3               |
| J/502/6098                      | 207                      | Use tools to produce formed jewellery or formed silverware components  | 35  | 6               |
| L/502/6099                      | 208                      | Use equipment to permanently join jewellery or silverware components   | 25  | 4               |
| J/502/6103                      | 209                      | Use hand and mechanical techniques to polish and finish jewellery or silverware components                     | 19  | 3               |
| L/502/6104                      | 210                      | Use tools to produce hand engraving on jewellery or silverware products  | 29  | 4               |
| L/502/6105                      | 211                      | Use techniques to identify and secure stone in settings in jewellery or silverware products                    | 27  | 4               |
| Y/502/6106                      | 212                      | Identify and explain methods and tools used in vitreous enamelling to produce jewellery or silverware products | 21  | 3               |
| D/502/6107                      | 213                      | Identify how new and emerging technologies may impact on working practices in the jewellery industry           | 14  | 2               |



#### 2 Centre requirements

#### **Approval**

If there is no fast track approval for this qualification, existing centres who wish to offer this qualification must use the standard Qualification Approval Process.

To offer this qualification, new centres will need to gain both centre and qualification approval. Please refer to the *Centre Manual - Supporting Customer Excellence* for further information. Centre staff should familiarise themselves with the structure, content and assessment requirements of the qualification before designing a course programme.

#### Centre staffing

Staff delivering this qualification must be able to demonstrate that they meet the following occupational expertise requirements. They should:

- be occupationally competent or technically knowledgeable in the area for which they are delivering training and/or have experience of providing training. This knowledge must be to the same level as the training being delivered
- have recent relevant experience in the specific area they will be assessing
- have credible experience of providing training.

Centre staff may undertake more than one role, e.g. tutor and assessor or internal verifier, but cannot internally verify their own assessments.

#### **Assessors and internal verifiers**

Centre staff should hold, or be working towards, the relevant Assessor/Verifier (A/V) units for their role in delivering, assessing and verifying this qualification, or meet the relevant experience requirements outlined above.

#### **Continuing professional development (CPD)**

Centres must support their staff to ensure that they have current knowledge of the occupational area, that delivery, mentoring, training, assessment and verification is in line with best practice, and that it takes account of any national or legislative developments.

#### Candidate entry requirements

City & Guilds does not set entry requirements for this qualification. However, centres must ensure that candidates have the potential and opportunity to gain the qualification successfully.

#### Age restrictions

City & Guilds cannot accept any registrations for candidates under 16 as this qualification is not approved for under 16s.



#### 3 Delivering the qualification

#### Initial assessment and induction

An initial assessment of each candidate should be made before the start of their programme to identify:

- if the candidate has any specific training needs,
- support and guidance they may need when working towards their qualification.
- any units they have already completed, or credit they have accumulated which is relevant to the qualification.
- the appropriate type and level of qualification.

We recommend that centres provide an induction programme so the candidate fully understands the requirements of the qualification, their responsibilities as a candidate, and the responsibilities of the centre. This information can be recorded on a learning contract.

#### **Recording documents**

Candidates and centres may decide to use a paper-based or electronic method of recording evidence.

City & Guilds endorses several ePortfolio systems, including our own, **Learning Assistant**, an easy-to-use and secure online tool to support and evidence learners' progress towards achieving qualifications. Further details are available at: **www.cityandguilds.com/eportfolios**.

City & Guilds has developed a set of *Recording forms* including examples of completed forms, for new and existing centres to use as appropriate. **Recording forms** are available on the City & Guilds website.

Although new centres are expected to use these forms, centres may devise or customise alternative forms, which must be approved for use by the external verifier, before they are used by candidates and assessors at the centre.

Amendable (MS Word) versions of the forms are available on the City & Guilds website.



#### 4 Assessment

#### Assessment of the qualification

Candidates must:

• have a completed portfolio of evidence for each unit

#### **Assessment strategy**

The following sections on Simulation, Evidence and Expertise of assessors, verifiers and expert witnesses are taken from the Overarching Assessment Principles For Occupational Qualifications document provided by Creative and Cultural Skills;

#### Simulation

Any simulation allowed must:

- provide an environment which replicates the key characteristics of the workplace in which the skill to be assessed is normally employed.
  - Unless otherwise indicated, it is a general principle that evidence from simulations should only be employed under the following circumstances:
- where for the candidate to be assessed performing this task in a real working environment could be deemed to pose risks to the themselves or others.
- where the situation or task to be assessed arises so infrequently that it would be impractical to wait for an opportunity to assess it solely when it occurred for real
- at the discretion of the Awarding Organisation where it is considered the environment provided fully reflects a commercial working environment and that the demands on the candidate during simulation are neither more or less than they would be in a real work environment/situation.
  - Any simulation must be approved in advance by the External Verifier, and clear reasons must be given for its intended use. If approval is given, all Awarding Organisation guidance and requirements must be observed.

#### **Evidence**

Workplace performance evidence should form the greatest proportion of each candidate's evidence, attesting to the fact that for an occupational qualification the candidate has demonstrated competence across the full range of performance requirements and that they are able to apply relevant knowledge and skills.

Other types of acceptable evidence include, but are not limited to:

- Witness Testimony (Details of acceptable witnesses are found below under 'Expertise of assessors, verifiers and witnesses')
- Logs/Diaries kept by Candidates
- Recorded answers to questions posed by the Assessor
- Recorded/Transcribed Interviews with the Candidate
- Recorded use of up-to-date commercial/industrial equipment
- E-portfolios and other forms of digital media
- Works documentation attributable to the candidate
- Both interim and final internal verification.

#### Expertise of assessors, verifiers and expert witnesses

#### Assessors must:

- Be competent to make qualitative judgements about the QCF units they are assessing. Illustrations of competence could include the assessor:
  - o Having achieved the award/units themselves
  - o Having substantial demonstrable experience in the job roles they are assessing
- Hold assessor qualifications appropriate to the nation in which they are working.
- Carry out their duties in accordance with current guidance on assessment practice issued by the regulatory authorities and the appropriate Awarding Organisation.
- Maintain appropriate evidence of development activities to ensure their assessment skills and occupational understanding are current (CPD)
- Have a working knowledge of the NOS and the awards and a full understanding of that part of the award for which they have responsibility. The Awarding Organisation will confirm this through examination of relevant CVs supported by relevant references.
- Meet any additional requirements as specified by the Awarding Organisation.

#### Internal verifiers must:

- Hold verifier qualifications appropriate to the nation in which they are working,
- Carry out their duties in accordance with current guidance on verification practice issued by the regulatory authorities and the appropriate Awarding Organisation.
- Maintain appropriate evidence of development activities to ensure their assessment skills and occupational understanding are current (CPD)
- Have relevant experience within the sector, a working knowledge of the QCF units/award and a full understanding of that part of the units/award for which they have responsibility. The Awarding Organisation will confirm this through examination of relevant CVs supported by relevant references.
- Meet any additional requirements as specified by the Awarding Organisation

#### External verifiers must:

- Be familiar with and/or experienced in the relevant sector and/or context to be able to verify that candidate evidence has met the requirements of the award and the requirements of the appropriate Awarding Organisation
- Be in possession of or be working towards external verifier qualifications appropriate to the nation in which they are working,
- Carry out their duties in accordance with the current guidance on verification practice issued by the regulatory authorities and appropriate Awarding Organisation.
- Maintain appropriate evidence of development activities to ensure their verification skills and occupational awareness are current (CPD)
- Not work with any centre in which they have a personal or financial interest.
- Meet any additional requirements as specified by the Awarding Organisation
- Take part in continuing professional development activities offered by the Awarding Organisation or other relevant providers in the sector to keep up-to-date with developments relating to the award and changes taking place in the industry

#### Expert witnesses must:

Be competent to make judgements about the activity for which they
are providing the testimony. As the assessment decision lies with the
Assessor, it is their responsibility to verify this and, where challenged,
to justify their acceptance of third party 'witness testimony' to the
Internal Verifier.

The full Overarching Assessment Principles For Occupational Qualifications document can be found on The Creative and Cultural Skills Website - www.ccskills.org.uk

#### Recognition of prior learning (RPL)

Recognition of prior learning means using a person's previous experience or qualifications which have already been achieved to contribute to a new qualification. RPL is allowed and is sector specific.



#### 5 Units

#### **Availability of units**

Below is a list of the learning outcomes for all the units, which are also on The Register of Regulated Qualifications:

http://register.ofqual.gov.uk/Unit

#### Structure of units

These units each have the following:

- City & Guilds reference number
- unit accreditation number (UAN)
- title
- level
- credit value
- unit aim
- relationship to NOS, other qualifications and frameworks
- endorsement by a sector or other appropriate body
- learning outcomes which are comprised of a number of assessment criteria

# Unit 201 Contribute to keeping the workshop tidy and safe in jewellery, silversmithing and allied trades

| UAN:  | D/502/6009   |  |
|---|--|--|
| Level:  | Level 2  |  |
| Credit value:   | 3  |  |
| GLH:  | 15   |  |
| Relationship to NOS:  | This unit relates to NOS J2.1 Contribute to keeping the workshop tidy and safe.  |  |
| Assessment requirements specified by a sector or regulatory body: | This unit is endorsed by Creative & Cultural Skills, the Sector Skills Council for Jewellery Manufacturing.  |  |
| Aim:  | This unit aims to assess the candidate's ability to demonstrate the skills and knowledge required for good workshop practice. It involves keeping the workshop tidy and safe. It also involves identifying risks in the workplace, taking action to ensure that health and safety hazards are reduced and how to report any potential hazards. |  |

| Learning outcome   | The learner will:   |  |  |
|--|---|--|--|
| 1. Understand why ke   | 1. Understand why keeping the workshop tidy and safe is important |  |  |
| Assessment criteria  | Assessment criteria   |  |  |
| The learner can:   |   |  |  |
| 1.1 Describe the importance of keeping the work area safe and tidy |   |  |  |
| 1.2 Define what 'hazards' are                                      |   |  |  |
| 1.3 Define what 'risks' are  |   |  |  |
| 1.4 State which hazards and risks may exist within the workplace   |   |  |  |

| Learning outcome  | The learner will:   |  |  |
|---|---|--|--|
| 2. Know how to contr  | 2. Know how to contribute to keeping the workshop tidy and safe |  |  |
| Assessment criteria   |   |  |  |
| The learner can:  |   |  |  |
| 2.1 Describe the safe working practices that should be followed in the workshop |   |  |  |
| 2.2 Identify the workplace procedures for dealing with and reporting risk       |   |  |  |

2.3 State the people responsible for health and safety in the workplace 2.4 State where the people responsible for health and safety are located

- 2.5 Describe the relevant manufacturer's instructions for the safe use of materials and equipment that must be followed
- 2.6 State the importance of wearing personal protective clothing

#### **Learning outcome** | The learner will:

3. Be able to contribute to keeping the workshop tidy and safe

#### **Assessment criteria**

- 3.1 Ensure that they have sufficient clear bench space to safely carry out the work specified work activities
- 3.2 Identify any working practices relevant to the task that could harm themselves or others
- 3.3 Demonstrate that they follow workplace instructions, and suppliers and manufacturers instructions
- 3.4 Demonstrate that they can remove and dispose of waste and surplus material correctly
- 3.5 Leave the work area in a safe and tidy condition
- 3.6 Wear the appropriate personal protective clothing

## Unit 202 Interpret jewellery manufacture or silversmithing drawings

| UAN:  | A/502/6034  |  |
|---|---|--|
| Level:  | Level 2   |  |
| Credit value:   | 2   |  |
| GLH:  | 12  |  |
| Relationship to NOS:  | This unit relates to NOS J2.2 Read jewellery manufacture or silversmithing drawings.  |  |
| Assessment requirements specified by a sector or regulatory body: | This unit is endorsed by Creative & Cultural Skills, the Sector Skills Council for Jewellery Manufacturing.   |  |
| Aim:  | This unit aims to assess the candidate's ability to apply the skills and knowledge required for locating, reading and extracting information from drawings and specifications in accordance with approved procedures. |  |

| Learning outcome | The learner will:   |
|------------------|---------------------|
| Louining outcome | I THE TEATHER WITH. |

1. Know how to interpret and use drawings and specifications

#### **Assessment criteria**

- 1.1 Describe how to interpret drawings in order to extract dimensions
- 1.2 Describe the symbols used within drawings and specifications
- 1.3 Define the terminology used within drawings and specifications
- 1.4 Describe the conventions used within drawings and specifications
- 1.5 Describe the extent of their own responsibility and to whom they should report when problems arise that they cannot resolve

| Learning outcome | The learner will: |
|------------------|-------------------|
|------------------|-------------------|

2. Be able to interpret information provided in drawings

#### **Assessment criteria**

- 2.1 Interpret technical drawings and specifications using a range of drawing and measuring tools, including:
  - Ruler
  - Compass
  - Set square
  - Protractor
  - HB pencil
  - Eraser
- 2.2 Follow instructions relating to work, including:
  - Oral instructions
  - Written instructions
  - Drawn instructions
- 2.3 Check that the finished work meets the specification

## Unit 203 Mark out and measure materials for jewellery and silverware components

| UAN:  | A/502/6048  |
|---|---|
| Level:  | Level 2   |
| Credit value:   | 2   |
| GLH:  | 10  |
| Relationship to NOS:  | This unit relates to NOS J2.3 Mark out and measure materials for jewellery or silverware components.  |
| Assessment requirements specified by a sector or regulatory body: | This unit is endorsed by Creative & Cultural Skills, the Sector Skills Council for Jewellery Manufacturing.   |
| Aim:  | This unit aims to assess the candidates ability to apply the skills and knowledge required for marking out and measuring materials that may be used in jewellery and silverware |

#### **Learning outcome** | The learner will:

1. Understand the conventions of marking out and measuring materials for jewellery or silverware components

#### **Assessment criteria**

- 1.1 Explain the conventions used within a range of simple technical drawings
- 1.2 Explain methods used to mark out and measure materials
- 1.3 Describe the measuring tools and equipment used to mark out materials

#### **Learning outcome** | The learner will:

2. Be able to mark out and measure materials for jewellery or silverware components

#### **Assessment criteria**

- 2.1 Identify common marking out and measuring tools, including:
  - Micrometers
  - Vernier gauge calliper
  - Steel rule
  - Steel dividers
  - Scriber
  - Centre punch
- 2.2 Perform marking out and measuring tasks in response to instructions, including:
  - Oral instructions
  - Written instructions
  - Drawn instructions
- 2.3 Perform tasks using measuring tools and marking out equipment on metal surfaces to given specifications and dimensions in a way that avoids excessive waste

# Unit 204 Know the properties of common precious metals and alloys used in jewellery manufacture or silversmithing

| UAN:  | T/502/6047   |
|---|--|
| Level:  | Level 2  |
| Credit value:   | 4  |
| GLH:  | 31   |
| Relationship to NOS:  | This unit relates to NOS J2.4 Identify the basic properties of common precious metals and alloys used in jewellery and silversmithing.   |
| Assessment requirements specified by a sector or regulatory body: | This unit is endorsed by Creative & Cultural Skills, the Sector Skills Council for Jewellery Manufacturing.  |
| Aim:  | This unit aims to assess the candidate's knowledge of the properties and characteristics of the types of manufacturing materials commonly used in jewellery manufacturing and silversmithing and their ability to select, prepare and use materials for metalwork and jewellery. |

| Learning outcome | The learner will |
|------------------|------------------|
| Learning outcome | 11111111111      |

1. Know the properties of common precious metals used in jewellery manufacture or silversmithing

#### **Assessment criteria**

- 1.1. State the commonly used precious metals and alloys in jewellery and silversmithing
- 1.2. Identify the basic properties of a range of metals and alloys. Metals and alloys including:
  - Gold
  - Silver
  - Platinum
  - Palladium

#### **Learning outcome** | The learner will:

2. Be able to select and prepare materials for metalwork

#### **Assessment criteria**

The learner can:

- 2.1. Select materials suitable for the required metalwork and jewellery following instructions
- 2.2. Prepare the materials for metalwork and jewellery in response to instructions
  - Oral instructions
  - Written instructions
  - Drawn instructions

#### **Learning outcome** The learner will:

3. Be able to experiment with and use materials

#### **Assessment criteria**

The learner can:

- 3.1. Apply and experiment with specialist for metalworking and jewellery
- 3.2. Record findings from experiments with precious metals

#### **Learning outcome** | The learner will:

4. Understand the common terminology and regulation used in the workplace

#### Assessment criteria

The learner can:

- 4.1 Explain the terminology used by the jewellery and silversmithing industry
- 4.2 Explain the Hallmarking Act and the implications it has upon operations

#### **Learning outcome** | The learner will:

5. Know how to identify the properties of common precious metals and alloys

#### Assessment criteria

- 5.1 Describe how to identify common ferrous and non-ferrous alloys
- 5.2 Describe the properties of jewellery and silversmith manufactured materials including:
  - Strength
  - Toughness
  - Ductility
  - Malleability
  - Weight
  - Surface treatment
  - Construction
  - Section thickness

- 5.3 Describe the characteristic of jewellery and silversmith manufacturing materials including:
  - Aesthetic qualities
  - Ease of working
  - Strengths and weaknesses
  - Quality of finishes

## Unit 205 Use tools to cut and pierce jewellery or silverware components

| UAN:  | K/502/6093   |
|---|--|
| Level:  | Level 2  |
| Credit value:   | 5  |
| GLH:  | 29   |
| Relationship to NOS:  | This unit relates to NOS J2.5 Cut and pierce jewellery or silverware components.   |
| Assessment requirements specified by a sector or regulatory body: | This unit is endorsed by Creative & Cultural Skills, the Sector Skills Council for Jewellery Manufacturing.  |
| Aim:  | This unit aims to assess the candidate's ability to apply the skills and knowledge required to identify and use the different types of equipment appropriate to cut and pierce materials in jewellery and silversmithing work places |

| Learning outcome | The learner will: |
|------------------|-------------------|
|------------------|-------------------|

1. Understand the importance of safe working when cutting and piercing

#### **Assessment criteria**

The learner can:

- 1.1 State the risks that may be encountered when cutting and piercing items
- 1.2 Explain how risks can be reduced when cutting and piercing items
- 1.3 Describe the importance of keeping the work area safe and tidy

#### **Learning outcome** The learner will:

2. Know how to cut and pierce jewellery and silverware components

#### **Assessment criteria**

- 2.1 Describe the methods that can be used for marking out and drilling for piercing simple shapes and patterns
- 2.2 Describe how to check that equipment is in a useable condition
- 2.3 Describe how to cut sheet materials using appropriate cutting equipment
- 2.4 Explain the type of saw and blade that should be used with different materials
- 2.5 Describe the importance of retaining valuable waste material
- 2.6 Describe the checks that should be used to ensure that piercing and cutting is accurate

| earner will: |
|--------------|
| j            |

3. Be able to use tools to cut and pierce jewellery and silverware components

#### **Assessment criteria**

- 3.1 Accurately follow instructions for cutting and piercing, including:
  - oral instructions
  - written instructions
  - drawn instructions
- 3.2 Select the correct saw and blades suited to the task including: piercing saw
  - junior hacksaw
  - standard hacksaw
- 3.3 Cut for jewellery and silverware using a range of cutting tools, including:
  - hand shears
  - guillotine
  - bench shears
- 3.4 Use a piercing saw frame with the appropriate saw blade to produce a range of shapes, including:
  - straight lines
  - spiral
  - round hole
  - square hole
  - symmetrical design fretwork
- 3.5 Check finished work against the specification

### Unit 206 Use tools to file jewellery or silverware components

| UAN:  | F/502/6102   |
|---|--|
| Level:  | Level 2  |
| Credit value:   | 3  |
| GLH:  | 21   |
| Relationship to NOS:  | This unit relates to NOS J2.6 File jewellery and silverware components.  |
| Assessment requirements specified by a sector or regulatory body: | This unit is endorsed by Creative & Cultural Skills, the Sector Skills Council for Jewellery Manufacturing.  |
| Aim:  | This unit aims to assess the candidate's ability to apply the skills and knowledge required to use different types of hand files in jewellery and silversmithing work places |

| Learning outcome | The | learner | will: |
|------------------|-----|---------|-------|
|------------------|-----|---------|-------|

1. Understand the importance of safe working practices when filing jewellery or silverware components

#### **Assessment criteria**

The learner can:

condition

- 1.1 State the risks that may be encountered when using files and filed materials
- 1.2 Explain the impact that not following safety precautions may have upon both the individual and the business
- 1.3 Describe the specific safety precautions to be taken when using files

| Learning outcome   | The learner will: |
|--|-------------------|
| 2. Know how to file jewellery or silverware components   |                   |
| Assessment criteria  |                   |
| The learner can:   |                   |
| 2.1 Describe how specifications and drawings should be referred to during the production of components |                   |
| 2.2 Describe the methods used for filing flat, curved and even surfaces                                |                   |
| 2.3 Describe how to assess and prepare files so that they are in a useable                             |                   |

2.4 Describe how to conserve waste filings

| Learning outcome | The learner will: |
|------------------|-------------------|
|------------------|-------------------|

3. Be able to use tools to file jewellery or silverware components

#### **Assessment criteria**

- 3.1 Follow instructions for filing jewellery or silverware components, including:
  - oral instructions
  - written instructions
  - drawn instructions
- 3.2 Select the correct hand file suited to the task, including:
  - hand file
  - pillar file
  - three square file
  - four square file
  - rat tail file
  - sage leaf file
- 3.3 Select the correct needle file suited to the task, including: barrette/safety back needle file
  - round needle file
  - three square needle file
  - four square needle file
  - sage leaf needle file
- 3.4 Assess the condition of the file and prepare it for use
- 3.5 Produce components to the specified standard including:
  - flat surfaces and edges
  - curved surfaces and edges
  - double curvature forms

## Unit 207 Use tools to produce formed jewellery or formed silverware components

| UAN:  | J/502/6098  |
|---|---|
| Level:  | Level 2   |
| Credit value:   | 6   |
| GLH:  | 35  |
| Relationship to NOS:  | This unit relates to NOS J2.7 Produce formed jewellery or silverware components.  |
| Assessment requirements specified by a sector or regulatory body: | This unit is endorsed by Creative & Cultural Skills, the Sector Skills Council for Jewellery Manufacturing.   |
| Aim:  | This unit aims to assess the candidate's ability to apply the skills and knowledge produce components using forming tools and techniques in a jewellery or silvermithing work place |

#### **Learning outcome** | The learner will:

1. Understand the importance of safe working practice when producing formed components

#### **Assessment criteria**

The learner can:

- 1.1 State the health and safety risks that may be encountered when producing formed jewellery or silverware components
- 1.2 Explain the impact that not following safety precautions may have upon both the individual and the business
- 1.3 State the importance of keeping the work area safe and tidy

| Learning outcome   | The learner will:                     |
|--|---------------------------------------|
| 2. Understand how to form jewellery and silverware components                            |                                       |
| Assessment criteria  |                                       |
| The learner can:   |                                       |
| 2.1 Describe how hand and machine forming tools should be effectively used and cared for |                                       |
| 2.2 Describe the methods used for heating materials to anneal components before forming  |                                       |
| 2.3 Describe the typical faults that can occur with the operations and tools being used  |                                       |
| 2.4 Describe how to pi   | roduce solid and hollow wire profiles |

2.5 Describe the methods that can be used to check that finished work

meets the standard required

| Learning outcome | The learner will: |
|------------------|-------------------|
|------------------|-------------------|

3. Be able to use tools to produce formed components

#### **Assessment criteria**

- 3.1 Identify a range of hand and machine forming tools and equipment appropriate to the task
- 3.2 Use hand forming tools to produce curved surfaces, including: hammers
  - doming block and punches
  - swage blocks
  - simple chasing punches
  - mandrels, triblets and/or stakes
- 3.3 Use hand and machine forming tools for flat surfaces, including:
  - flat plates
  - sheet rolling mills
  - wire rolling mills
- 3.4 Produce a range of simple formed components, including:
  - wire produced from small round and square drawplates up to 3mm
  - wire produced from larger round and square drawplates from 3mm upwards
  - sheet metal suitable for defined tasks using rolling mills
- 3.5 Produce simple components using a mechanical press
- 3.6 Follow work instructions correctly
- 3.7 Assess the finished work against defined specifications

### Unit 208 Use equipment to permanently join jewellery or silverware components

| UAN:  | L/502/6099   |
|---|--|
| Level:  | Level 2  |
| Credit value:   | 4  |
| GLH:  | 25   |
| Relationship to NOS:  | This unit relates to NOS J2.8 Carry out permanent joining of jewellery or silverware components.   |
| Assessment requirements specified by a sector or regulatory body: | This unit is endorsed by Creative & Cultural Skills, the Sector Skills Council for Jewellery Manufacturing.  |
| Aim:  | This unit aims to assess the candidate's ability and understanding when using permanent joining techniques. This includes working to a specification, using a range of equipment and a variety of permanent joining techniques appropriate to the material being used and the style being produced |

| Learning outcome | The learner will: |
|------------------|-------------------|
|------------------|-------------------|

1. Understand the importance of safe working practice when joining components

#### **Assessment criteria**

The learner can:

- 1.1 State the health and safety risks that may be encountered when permanently joining jewellery or silverware components
- 1.2 Explain the impact that not following safety precautions may have upon both the individual and the business
- 1.3 State the importance of keeping the work area safe and tidy

#### **Learning outcome** The learner will:

2. Know how to permanently join jewellery or silverware components

#### **Assessment criteria**

- 2.1 Describe a range of joining techniques
- 2.2 Describe how to identify the materials to be joined and the relevant solder that should be used
- 2.3 Describe the importance of heat, flux and solder when permanently joining jewellery and silverware components

- 2.4 Describe the importance of dry assembling components prior to carrying out the joining operation
- 2.5 Describe why pre-polishing surfaces is important
- 2.6 State the indicators which show the point where the melting of solder occurs
- 2.7 State the methods to be used for checking finished work for faults

#### **Learning outcome** | The learner will:

3. Be able to join jewellery or silverware components

#### **Assessment criteria**

- 3.1 Join components using soldering equipment appropriate to the task. Soldering equipment should include:
  - micro welder
  - oxygen and gas or propane torch
  - natural gas and air (compressed or mouth-blown torch)
  - propane torch
  - propane or natural gas and compressed air torch
  - laser welder
  - oxygen and acetylene torch
- 3.2 Produce components using permanently soldered joints. Soldered joints should include:
  - butt soldered joints
  - multiple soldered joints
  - long seamed soldered joints
- 3.3 Assess finished work against a defined specification

## Unit 209 Use hand and mechanical techniques to polish and finish jewellery or silverware components

| UAN:  | J/502/6103   |
|---|--|
| Level:  | Level 2  |
| Credit value:   | 3  |
| GLH:  | 19   |
| Relationship to NOS:  | This unit relates to NOS J2.9 Polish and finish jewellery or silverware components.  |
| Assessment requirements specified by a sector or regulatory body: | This unit is endorsed by Creative & Cultural Skills, the Sector Skills Council for Jewellery Manufacturing.  |
| Aim:  | This unit aims to assess the candidate's understanding of and ability to use hand and mechanical techniques when polishing and finishing jewellery or silverware components. |

#### **Learning outcome** | The learner will:

1. Understand the safety precautions that should be followed when polishing and finishing jewellery or silverware

#### **Assessment criteria**

The learner can:

- 1.1 State the specific safety precautions to be followed when using polishing machines
- 1.2 State the correct protective clothing and equipment that should be used
- 1.3 Describe the importance of using protective clothing and equipment

#### **Learning outcome** | The learner will:

2. Understand how to polish and finish jewellery or silverware components

#### **Assessment criteria**

- 2.1 State the methods that can be used when preparing work for polishing and finishing
- 2.2 Describe how polishing and finishing methods should be applied
- 2.3 Describe how a range of hand and mechanical polishing and finishing techniques should be used

- 2.4 State how to check and prepare polishing and finishing tools, materials and equipment
- 2.5 State how to recognise the typical faults associated with underprepared surfaces

#### **Learning outcome** | The learner will:

3. Be able to use techniques for polishing and finishing jewellery or silverware components

#### Assessment criteria

- 3.1 Prepare yourself and the work environment for polishing and finishing in line with safety requirements
- 3.2 Polish a range of items relevant to your area of work using hand and mechanical techniques
- 3.3 Finish a range of items relevant to your area of work using hand and mechanical techniques
- 3.4 Produce a range of surface finishes which are both functional and decorative
- 3.5 Complete work according to given instructions
- 3.6 Assess the degree to which the surface treatment meets the required standard

## Unit 210 Use tools to produce hand engraving on jewellery or silverware products

| UAN:  | L/502/6104  |
|---|---|
| Level:  | Level 2   |
| Credit value:   | 4   |
| GLH:  | 29  |
| Relationship to NOS:  | This unit relates to NOS J2.10 Produce hand engraving.  |
| Assessment requirements specified by a sector or regulatory body: | This unit is endorsed by Creative & Cultural Skills, the Sector Skills Council for Jewellery Manufacturing.   |
| Aim:  | This unit aims to assess the candidates ability and understanding when carrying out engraving on jewellery and silverware products, this includes using basic hand tools and working to a specification |

#### **Learning outcome** | The learner will:

1. Understand the importance of safe working practice when producing hand engraving

#### **Assessment criteria**

The learner can:

- 1.1 State the risks that may be encountered when using hand engraving equipment and materials
- 1.2 Explain the impact that not following safety precautions may have upon both the individual and the business

| Learning outcome The learner will:                           |  |
|--|--|
| 2. Know how to hand engrave jewellery or silverware products |  |
| Assessment criteria  |  |

- 2.1 Define the meaning of a range of items used to describe engraving techniques and processes
- 2.2 Describe how to accurately interpret drawings and specifications
- 2.3 State the importance of carrying out work in a particular sequence
- 2.4 Identify the applications of different tools
- 2.5 Describe how tools should be effectively maintained
- 2.6 Describe how to accurately measure and mark out work pieces using appropriate equipment for the task

- 2.7 Describe the different methods that can be used for securing work pieces
- 2.8 Identify the limitations of different methods that can be used to secure work

#### **Learning outcome** The learner will:

3. Be able to use tools to hand engrave jewellery or silverware products

#### **Assessment criteria**

- 3.1 Interpret drawings and specifications
- 3.2 Plan a sequence of activities
- 3.3 Select appropriate tools to achieve the specified outcome
- 3.4 Check that tools are in an appropriate condition for use
- 3.5 Measure and mark out the intended task prior to engraving
- 3.6 Position and hold the work piece in place without causing damage
- 3.7 Implement the task according to operating procedures
- 3.8 Polish and finish the work using specified techniques

#### Use techniques to identify and **Unit 211** secure stone in settings in jewellery or silverware products

| UAN:  | L/502/6105  |
|---|---|
| Level:  | Level 2   |
| Credit value:   | 4   |
| GLH:  | 27  |
| Relationship to NOS:  | This unit relates to NOS J2.11 Identify and secure stones in settings.  |
| Assessment requirements specified by a sector or regulatory body: | This unit is endorsed by Creative & Cultural Skills, the Sector Skills Council for Jewellery Manufacturing.   |
| Aim:  | This unit aims to assess the candidate's ability and understanding when securing gems in settings. It requires that the candidate can identify a range of setting styles and a range of gem materials and secure stones in commonly used settings |

| Learning outcome  | The learner will: |  |
|---|-------------------|--|
| 1. Know how to identify and secure stones in settings       |                   |  |
| Assessment criteria   |                   |  |
| The learner can:  |                   |  |
| 1.1 State the gem settings that can be used                 |                   |  |
| 1.2 Describe the commonly used styles of gemstone cuts      |                   |  |
| 1.3 State the commonly used gemstones                       |                   |  |
| 1.4 Describe setting techniques for commonly used gemstones |                   |  |

| Learning outcome                                     | The learner will: |  |
|--|-------------------|--|
| 2. Be able to identify and secure stones in settings |                   |  |
| Assessment criteria                                  |                   |  |
| The learner can:                                     |                   |  |
| 2.1 Identify a range of gemstones                    |                   |  |

- 2.2 identify a range of stone-setting styles, including:
- - rub over setting
  - thread and grain
  - star setting
  - pavee setting
  - simple claw settings
- 2.3 Secure stones in commonly used settings

#### Identify and explain methods **Unit 212** and tools used in vitreous enamelling to produce jewellery or silverware products

| UAN:  | Y/502/6106  |
|---|---|
| Level:  | Level 2   |
| Credit value:   | 3   |
| GLH:  | 21  |
| Relationship to NOS:  | This unit relates to NOS J2.12 Identify and explain methods and tools used in vitreous enamelling.                                  |
| Assessment requirements specified by a sector or regulatory body: | This unit is endorsed by Creative & Cultural Skills, the Sector Skills Council for Jewellery Manufacturing.                         |
| Aim:  | This unit aims to assess the candidate's ability and understanding when working with hand tool applications to carry out enamelling |

#### The learner will: **Learning outcome**

1. Understand the importance of safe working practice when undertaking vitreous enamelling

#### Assessment criteria

The learner can:

- 1.1 State the health and safety risks that may be encountered when using vitreous enamelling to produce jewellery or silverware products
- 1.2 Explain the impact that not following safety precautions may have upon both the individual and the business
- 1.3 State the importance of keeping the work area safe and tidy
- 1.4 State the health and safety procedures that should be followed when maintaining the usage and storage of chemicals

#### Learning outcome The learner will: 2. Understand how to identify key components used in enamelling processes **Assessment criteria** The learner can: 2.1 Describe how enamelling tools should be used

- 2.2 Describe how enamelling kilns should be used

- 2.3 Define the common terminology used within enamelling activities
- 2.4 Define the differences between opaque, transparent and opalescent enamel
- 2.5 Describe how to interpret drawings and specifications
- 2.6 Describe the importance of carrying out work in a defined sequence
- 2.7 Describe the different tools that can be used in enamelling processes
- 2.8 Describe the applications of different enamelling tools

#### **Learning outcome** The learner will:

3. Be able to identify methods and tools used in vitreous enamelling to produce jewellery or silverware products

#### Assessment criteria

- 3.1 Identify the most appropriate method of enamelling for a range of applications, including:
  - dry sifting
  - wet packing
  - liquid enamels
- 3.2 Identify a range of enamelling techniques, including:
  - flat surface enamelling
  - counter enamelling
- 3.3 Identify a range of tools used in enamelling processes
- 3.4 Identify the key components of a kiln

# Unit 213 Identify how new and emerging technologies may impact on working practices in the jewellery industry

| UAN:  | D/502/6107   |
|---|--|
| Level:  | Level 2  |
| Credit value:   | 2  |
|   |  |
| GLH:  | 14   |
| Relationship to NOS:  | This unit relates to NOS J2.13 Identify new and emerging technologies in the jewellery industry, allied trades and how they may impact on your working practices.                |
| Assessment requirements specified by a sector or regulatory body: | This unit is endorsed by Creative & Cultural Skills, the Sector Skills Council for Jewellery Manufacturing.  |
| Aim:  | This unit aims to assess the candidate's ability and understanding to assist with maintaining an awareness of the jewellery industry, allied trades and related new technologies |

#### **Learning outcome** | The learner will:

1. Know how to identify and respond to new and emerging technologies in the jewellery industry

#### **Assessment criteria**

- 1.1 Explain the importance of keeping abreast of current and emerging technologies and new working practices
- 1.2 Identify where information about emerging technologies and working practices can be sourced
- 1.3 Describe the impact that existing and emerging technologies may have upon future working practices
- 1.4 Provide examples of existing and emerging technologies
- 1.5 Explain how to develop personal contacts to form networks to support and inform their work activities
- 1.6 Describe the different types of skills development available and what would best meet their needs



### Appendix 1 Relationships to other qualifications

#### Literacy, language, numeracy and ICT skills development

This qualification can develop skills that can be used in the following qualifications:

- Functional Skills (England) see
   www.cityandguilds.com/functionalskills
- Essential Skills (Northern Ireland) see www.cityandguilds.com/essentialskillsni
- Essential Skills Wales see www.cityandguilds.com/esw



### Appendix 2 Sources of general information

The following documents contain essential information for centres delivering City & Guilds qualifications. They should be referred to in conjunction with this handbook. To download the documents and to find other useful documents, go to the **Centres and Training Providers homepage** on **www.cityandguilds.com**.

**Centre Manual - Supporting Customer Excellence** contains detailed information about the processes which must be followed and requirements which must be met for a centre to achieve 'approved centre' status, or to offer a particular qualification, as well as updates and good practice exemplars for City & Guilds assessment and policy issues. Specifically, the document includes sections on:

- The centre and qualification approval process
- Assessment, internal quality assurance and examination roles at the centre
- Registration and certification of candidates
- Non-compliance
- Complaints and appeals
- Equal opportunities
- Data protection
- Management systems
- Maintaining records
- Assessment
- Internal quality assurance
- External quality assurance.

**Our Quality Assurance Requirements** encompasses all of the relevant requirements of key regulatory documents such as:

- Regulatory Arrangements for the Qualifications and Credit Framework (2008)
- SQA Awarding Body Criteria (2007)
- NVQ Code of Practice (2006)

and sets out the criteria that centres should adhere to pre and post centre and qualification approval.

**Access to Assessment & Qualifications** provides full details of the arrangements that may be made to facilitate access to assessments and qualifications for candidates who are eligible for adjustments in assessment.

The **centre homepage** section of the City & Guilds website also contains useful information such on such things as:

- Walled Garden: how to register and certificate candidates on line
- Qualifications and Credit Framework (QCF): general guidance about the QCF and how qualifications will change, as well as information on the IT systems needed and FAQs
- **Events**: dates and information on the latest Centre events
- **Online assessment**: how to register for e-assessments.

### **City & Guilds**Skills for a brighter future



www.cityandguilds.com

#### **Useful contacts**

| <b>UK learners</b> General qualification information   | T: +44 (0)844 543 0033 E: learnersupport@cityandguilds.com          |
|--|---|
| International learners   | T: +44 (0)844 543 0033  |
| General qualification information  | F: +44 (0)20 7294 2413  |
| General qualification information  | E: intcg@cityandguilds.com  |
| Cambras  |   |
| Centres  Exam entries Cortificates   | T: +44 (0)844 543 0000  |
| Exam entries, Certificates,<br>Registrations/enrolment, Invoices,                                | F: +44 (0)20 7294 2413<br>E: <b>centresupport@cityandguilds.com</b> |
| Missing or late exam materials,<br>Nominal roll reports, Results                                 |   |
| Single subject qualifications  | T: +44 (0)844 543 0000  |
| Exam entries, Results, Certification,  | F: +44 (0)20 7294 2413  |
| Missing or late exam materials,  | F: +44 (0)20 7294 2404 (BB forms)                                   |
| Incorrect exam papers, Forms   | E: singlesubjects@cityandguilds.com                                 |
| request (BB, results entry), Exam date and time change   |   |
| International awards   | T: +44 (0)844 543 0000  |
| Results, Entries, Enrolments,  | F: +44 (0)20 7294 2413  |
| Invoices, Missing or late exam materials, Nominal roll reports                                   | E: intops@cityandguilds.com   |
| Walled Garden  | T: +44 (0)844 543 0000  |
| Re-issue of password or username,  | F: +44 (0)20 7294 2413  |
| Technical problems, Entries,<br>Results, e-assessment, Navigation,<br>User/menu option, Problems | E: walledgarden@cityandguilds.com                                   |
| Employer   | T: +44 (0)121 503 8993  |
| Employer solutions, Mapping,<br>Accreditation, Development Skills,<br>Consultancy                | E: business@cityandguilds.com                                       |
| Publications   | T: +44 (0)844 543 0000  |
| Logbooks, Centre documents, Forms, Free literature   | F: +44 (0)20 7294 2413  |

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