City & Guilds Level 3 Diplomas in Jewellery Manufacturing (7679-05)

Version 2.3 (September 2024)

Qualification Handbook

Qualification at a glance

Subject area	Manufacturing Technologies
City & Guilds number	7679
Age group approved	16+
Entry requirements	None
Assessment	Portfolio
Grading	Pass/Fail
Approvals	Full approval required
Support materials	Qualification Handbook
Registration and certification	Consult the Walled Garden/Online Catalogue for last dates

Title and level	City & Guilds qualification number	Regulatory reference number	GLH	TQT
City & Guilds Level 3 Diploma in Jewellery Manufacturing CAD/CAM	7679-05	601/3306/5	673	810
City & Guilds Level 3 Diploma in Jewellery Allied Trades	7679-05	601/3311/9	314	460
City & Guilds Level 3 Diploma in Jewellery and Silverware Manufacturing	7679-05	601/3310/7	565	810

Version and date	Change detail	Section
2.1 September 2017	Added TQT details	Structure
2.2 17 March 2020	Unit 332	Unit Aim Page 29
2.3 September 2024	Handbook reviewed and updated to new template	Throughout

Contents

1 Introduction

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

Area	Description
Who are the qualifications for?	These qualifications are for those individuals who want to work in one of the Qualification Frameworks 1 - 7. These are specialised skills in the Jewellery, Silversmithing and Allied trades. The qualifications will provide proof of advanced practical ability, knowledge and understanding of the chosen profession. The qualifications are a natural progression for those with a Level 2 Diploma or suitable work experience or qualification. This standard is recognised as a benchmark for employers looking at those engaged in their workforce or those seeking employment.
What do the qualifications cover?	These qualifications concentrate on specialised skills at a more advanced level. Each Framework has mandatory units that cover a comprehensive range of essential skills to improve the competence of the chosen skill. Related aspects associated with the profession and their procedures are covered as underpinning knowledge including Health & Safety.
Are the qualifications part of an apprenticeship framework or initiative?	These qualifications are part of the jewellery manufacture framework.

Structure

City & Guilds Level 3 Diploma in Jewellery and Silverware Manufacturing

To achieve the **City & Guilds Level 3 Diploma in Jewellery and Silverware Manufacturing – Silversmithing** the learner must achieve a minimum of 81 credits by completing all the units in Group A, all units from group B and a minimum of 6 credits from group D.

To achieve the **City & Guilds Level 3 Diploma in Jewellery and Silverware Manufacturing – Jewellery Manufacture** the learner must achieve a minimum of 81 credits by completing all the units from Group A, all units from group C and a minimum of 6 credits from group E.

Unit accreditation number	City & Guilds unit number	Unit title	Credit value	Unit level	GLH
Group A - Mandatory all pathways:					
H/506/1635	327	Maintain and prepare the workshop for work with precious metal objects	3	3	17
L/506/1421	328	Produce precious metal objects from detailed drawings and specifications	6	3	42
T/506/1591	329	Mark out and measure materials for the manufacture of precious metal objects	6	3	40
Y/506/1602	330	Use mechanical methods to join precious metal components	8	3	58
F/506/1710	331	Produce tools and jigs for use in the manufacture of precious metal objects	8	3	39
L/506/1600	332	Apply concepts of metallurgy to the production of precious metal objects	10	3	86
Group B - Mandatory Silversmithing:					
A/506/1706	333	Saw and pierce silverware components	13	3	89

A/506/1639	334	Form complex silverware components	12	3	84
M/506/1640	335	Join silverware components by soldering	9	3	74
Group C – Mandatory Jewellery Manufacture:					
T/506/1638	336	Form complex jewellery components	12	3	84
R/506/1596	337	Join jewellery components by soldering	9	3	74
T/506/1705	353	Saw and pierce jewellery components	13	3	89
Group D – Optional Silversmithing:					
R/506/1596	337	Join jewellery components by soldering	9	3	74
R/506/1601	338	Produce rubber moulds for lost wax casting	9	3	68
A/506/1592	339	Produce jewellery components using wax casting	11	3	84
J/506/1711	340	Produce spun silverware components	11	3	80
Y/506/1714	341	Polish and finish silverware components to a commercial standard	18	3	156
F/506/1593	342	Produce CAD designs for precious metal objects	19	3	162
M/506/1637	343	Produce CAM prototypes for precious metal objects	12	3	93
J/506/1708	344	Produce chased items for precious metal objects	14	3	106
H/506/1652	345	Set gemstones by hand in the manufacture of jewellery items	21	3	177

H/506/1716	346	Implement electro-deposition on precious metal components	11	3	66
K/506/1717	347	Implement electroforming to produce precious metal components	11	3	66
T/506/1641	348	Maintain knowledge of the jewellery industry, allied trades and related technologies	6	3	36
Group E – Optional Jewellery Manufacture:					
M/506/1640	335	Join silverware components by soldering	9	3	74
R/506/1601	338	Produce rubber moulds for lost wax casting	9	3	68
A/506/1592	339	Produce jewellery components using wax casting	11	3	84
F/506/1593	342	Produce CAD designs for precious metal objects	19	3	162
M/506/1637	343	Produce CAM prototypes for precious metal objects	12	3	93
H/506/1652	345	Set gemstones by hand in the manufacture of jewellery items	21	3	177
H/506/1716	346	Implement electro-deposition on precious metal components	11	3	66
K/506/1717	347	Implement electroforming to produce precious metal components	11	3	66
T/506/1641	348	Maintain knowledge of the jewellery industry, allied trades and related technologies	6	3	36
F/506/1707	349	Polish and finish jewellery components to a commercial standard	18	3	156

F/506/1643	350	Produce enamelled surfaces for precious metal objects	26	3	195

To achieve the **City & Guilds Level 3 Diploma in Jewellery Manufacturing CAD/CAM** the learner must achieve all the mandatory units (54 credits) plus a minimum of 21 credits from group A and a minimum of 6 credits from group B.

Unit accreditation number	City & Guilds unit number	Unit title	Credit value	Unit level	GLH
Mandatory units:					
L/506/1421	328	Produce precious metal objects from detailed drawings and specifications	6	3	42
T/506/1591	329	Mark out and measure materials for the manufacture of precious metal objects	6	3	40
A/506/1592	339	Produce jewellery components using wax casting	11	3	84
F/506/1593	342	Produce CAD designs for precious metal objects	19	3	162
M/506/1637	343	Produce CAM prototypes for precious metal objects	12	3	93
Group A – Optional (minimum of 21 credits):					
A/506/1639	334	Form complex silverware components	12	3	84
M/506/1640	335	Join silverware components by soldering	9	3	74
T/506/1638	336	Form complex jewellery components	12	3	84
R/506/1596	337	Join jewellery components by soldering	9	3	74

Group B – Optional (minimum of 6 credits):

Y/506/1602	330	Use mechanical methods to join precious metal components	8	3	58
L/506/1600	332	Apply concepts of metallurgy to the production of precious metal objects	10	3	86
R/506/1601	338	Produce rubber moulds for lost wax casting	9	3	68
T/506/1641	348	Maintain knowledge of the jewellery industry, allied trades and related technologies	6	3	36

City & Guilds Level 3 Diplomas in Jewellery Allied Trades

To achieve the **City & Guilds Jewellery Allied Trades – Enamelling** the learner must achieve a minimum of 74 credits and achieve the unit from Group A, all of the units from group B and a minimum of 6 credits from group F.

To achieve the **City & Guilds Jewellery Allied Trades – Engraving** the learner must achieve a minimum of 62 credits and achieve the unit from Group A, all of the units from group C and a minimum of 14 credits from group G.

To achieve the **City & Guilds Jewellery Allied Trades – Polishing and Finishing** the learner must achieve a minimum of 46 credits and achieve the unit from Group A, both the units from group D, a minimum of 8 credits from group H and a minimum of 18 credits from group I.

To achieve the **City & Guilds Jewellery Allied Trades – Gem Setting** the learner must achieve a minimum of 50 credits and achieve the unit from Group A, all of the units from group E and a minimum of 14 credits from group J.

NB: Unit F/506/1707 (Polish and finish jewellery components to a commercial standard) is barred against Y/506/1714 (Polish and finish silverware components to a commercial standard)

Unit accreditation number	City & Guilds unit number	Unit title	Credit value	Unit level	GLH
Group A - Mandatory:					
H/506/1635	327	Maintain and prepare the workshop for work with precious metal objects	3	3	17
Group B - Mandatory Enamelling:					
T/506/1641	348	Maintain knowledge of the jewellery industry, allied trades and related technologies	6	3	36
F/506/1643	350	Produce enamelled surfaces for precious metal objects	26	3	195
R/506/1646	351	Produce engraved surfaces for precious metal objects	20	3	69
D/506/1648	352	Understand how to produce engraved surfaces for precious metal objects	13	3	92

Group C – Mandatory Engraving:					
L/506/1421	328	Produce precious metal objects from detailed drawings and specifications	6	3	42
T/506/1591	329	Mark out and measure materials for the manufacture of precious metal objects	6	3	40
R/506/1646	351	Produce engraved surfaces for precious metal objects	20	3	69
D/506/1648	352	Understand how to produce engraved surfaces for precious metal objects	13	3	92
Group D – Mandatory Polishing and Finishing:					
H/506/1716	346	Implement Electro-deposition on Precious Metal Components	11	3	66
T/506/1641	348	Maintain Knowledge of the Jewellery Industry, Allied Trades and Related Technologies	6	3	36
Group E – Mandatory Gem Setting:					
T/506/1591	329	Mark out and measure materials for the manufacture of precious metal objects	6	3	40
H/506/1652	345	Set gemstones by hand in the manufacture of jewellery items	21	3	177
T/506/1641	348	Maintain knowledge of the jewellery industry, allied trades and related technologies	6	3	36
Group F – Optional Enamelling (* Barred combination):					
L/506/1421	328	Produce precious metal objects from detailed drawings and specifications	6	3	42

T/506/1591	329	Mark out and measure materials for the manufacture of precious metal objects	6	3	40
Y/506/1602	330	Use mechanical methods to join precious metal components	8	3	58
A/506/1706	333	Saw and pierce silverware components	13	3	89
A/506/1639	334	Form complex silverware components	12	3	84
M/506/1640	335	Join silverware components by soldering	9	3	74
T/506/1638	336	Form complex jewellery components	12	3	84
R/506/1596	337	Join jewellery components by soldering	9	3	74
Y/506/1714	341	Polish and finish silverware components to a commercial standard *	18	3	156
F/506/1593	342	Produce CAD designs for precious metal objects	19	3	162
M/506/1637	343	Produce CAM prototypes for precious metal objects	12	3	93
F/506/1707	349	Polish and finish jewellery components to a commercial standard *	18	3	156
T/506/1705	353	Saw and pierce jewellery components	13	3	89
Group G - Optional Engraving:					
F/506/1710	331	Produce tools and jigs for use in the manufacture of precious metal objects	8	3	39

L/506/1600	332	Apply concepts of metallurgy to the production of precious metal objects	10	3	86
A/506/1706	333	Saw and pierce silverware components	13	3	89
Y/506/1714	341	Polish and finish silverware components to a commercial standard	18	3	156
F/506/1593	342	Produce CAD designs for precious metal objects	19	3	162
M/506/1637	343	Produce CAM prototypes for precious metal objects	12	3	93
J/506/1708	344	Produce chased items for precious metal objects	14	3	106
H/506/1652	345	Set gemstones by hand in the manufacture of jewellery items	21	3	177
T/506/1641	348	Maintain knowledge of the jewellery industry, allied trades and related technologies	6	3	36
T/506/1705	353	Saw and pierce jewellery components	13	3	89
Group H – Optional Polishing and Finishing:					
F/506/1710	331	Produce tools and jigs for use in the manufacture of precious metal objects	8	3	39
L/506/1600	332	Apply concepts of metallurgy to the production of precious metal objects	10	3	86
Group I – Optional Polishing and Finishing (Only ONE of these units can be completed):					

Y/506/1714	341	Polish and finish silverware components to a commercial standard	18	3	156
F/506/1707	349	Polish and finish jewellery components to a commercial standard	18	3	156
Group J – Optional Gem Setting (* Barred combination):					
L/506/1421	328	Produce precious metal objects from detailed drawings and specifications	6	3	42
F/506/1710	331	Produce tools and jigs for use in the manufacture of precious metal objects	8	3	39
L/506/1600	332	Apply concepts of metallurgy to the production of precious metal objects	10	3	86
A/506/1706	333	Saw and pierce silverware components	13	3	89
Y/506/1714	341	Polish and finish silverware components to a commercial standard *	18	3	156
F/506/1707	349	Polish and finish jewellery components to a commercial standard *	18	3	156
R/506/1646	351	Produce engraved surfaces for precious metal objects	20	3	69
D/506/1648	352	Understand how to produce engraved surfaces for precious metal objects	13	3	92
T/506/1705	353	Saw and pierce jewellery components	13	3	89

Total Qualification Time (TQT)

Total Qualification Time (TQT) is the number of notional hours which represents an estimate of the total amount of time that could reasonably be expected for a learner to demonstrate the achievement of the level of attainment necessary for the award of a qualification.

TQT comprises of the following two elements:

1) the number of hours that an awarding organisation has assigned to a qualification for guided learning
2) an estimate of the number of hours a learner will reasonably be likely to spend in preparation, study or any other form of participation in education or training, including assessment, which takes place as directed by – but, unlike guided learning, not under the immediate guidance or supervision of – a lecturer, supervisor, tutor or other appropriate provider of education or training.

Title and level	GLH	TQT
City & Guilds Level 3 Diploma in Jewellery Manufacturing CAD/CAM	673	810
City & Guilds Level 3 Diploma in Jewellery Allied Trades	314	460
City & Guilds Level 3 Diploma in Jewellery and Silverware Manufacturing	565	810

2 Centre requirements

Approval

Full approval

To offer these qualifications, new centres will need to gain both centre and qualification approval. Please refer to the document **Centre Approval Process: Quality Assurance Standards** for further information.

Centre staff should familiarise themselves with the structure, content and assessment requirements of the qualification before designing a course programme.

Resource requirements

Centre staffing

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

- be occupationally competent or technically knowledgeable in the area(s) 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.

Continuing professional development (CPD)

Centres are expected to support their staff in ensuring that their knowledge remains current of the occupational area and of best practice in delivery, mentoring, training, assessment and quality assurance, and that it takes account of any national or legislative developments.

Quality assurance

Approved centres must have effective quality assurance systems to ensure optimum delivery and assessment of qualifications. Quality assurance includes initial centre approval, qualification approval and the centre's own internal procedures for monitoring quality. Centres are responsible for internal quality assurance and City & Guilds is responsible for external quality assurance. All external quality assurance processes reflect the minimum requirements for verified and moderated assessments, as detailed in the Centre Assessment Standards Scrutiny (CASS), section H2 of Ofqual's General Conditions. For more information on both CASS and City and Guilds Quality Assurance processes visit: the What is CASS? and Quality Assurance Standards documents on the City & Guilds website.

Standards and rigorous quality assurance are maintained by the use of:

- Internal quality assurance
- City & Guilds external quality assurance.

In order to carry out the quality assurance role, Internal Quality Assurers must

- have appropriate teaching and vocational knowledge and expertise
- have experience in quality management/internal quality assurance

- hold or be working towards an appropriate teaching/training/assessing qualification
- be familiar with the occupation and technical content covered within the qualification.

External quality assurance for the qualification will be provided by City & Guilds EQA process. EQAs are appointed by City & Guilds to approve centres, and to monitor the assessment and internal quality assurance carried out by centres. External quality assurance is carried out to ensure that assessment is valid and reliable, and that there is good assessment practice in centres.

The role of the EQA is to:

- provide advice and support to centre staff
- ensure the quality and consistency of assessments and marking/grading within and between centres by the use of systematic sampling
- provide feedback to centres and to City & Guilds.

Learner entry requirements

City & Guilds does not set entry requirements for these qualifications. 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 learners under 16 as these qualifications are not approved for under 16s.

Access arrangements and reasonable adjustments

City & Guilds has considered the design of these qualifications and their assessments in order to best support accessibility and inclusion for all learners. We understand however that individuals have diverse learning needs and may require reasonable adjustments to fully participate. Reasonable adjustments, such as additional time or alternative formats, may be provided to accommodate learners with disabilities and support fair access to assessment.

Access arrangements are adjustments that allow candidates with disabilities, special educational needs, and temporary injuries to access the assessment and demonstrate their skills and knowledge without changing the demands of the assessment. These arrangements must be made before assessment takes place.

Equality legislation requires City & Guilds to make reasonable adjustments where a disabled person would be at a substantial disadvantage in undertaking an assessment.

It is the responsibility of the centre to ensure at the start of a programme of learning that candidates will be able to access the requirements of the qualification.

Please refer to the Joint Council for Qualifications (JCQ) access arrangements and reasonable adjustments and access arrangements - when and how applications need to be made to City & Guilds. For more information documents are available on the City & Guilds website.

3 Delivering the qualification

Initial assessment and induction

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

- if the learner 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 learner fully understands the requirements of the qualification, their responsibilities as a learner and the responsibilities of the centre. This information can be recorded on a learning contract.

Inclusion and diversity

City & Guilds is committed to improving inclusion and diversity within the way we work and how we deliver our purpose which is to help people and organisations develop the skills they need for growth.

More information and guidance to support centres in supporting inclusion and diversity through the delivery of City & Guilds qualifications can be found here:

Inclusion and diversity | City & Guilds (cityandguilds.com)

Sustainability

City & Guilds are committed to net zero. Our ambition is to reduce our carbon emissions by at least 50% before 2030 and develop environmentally responsible operations to achieve net zero by 2040 or sooner if we can. City & Guilds is committed to supporting qualifications that support our customers to consider sustainability and their environmental footprint.

More information and guidance to support centres in developing sustainable practices through the delivery of City & Guilds qualifications can be found here:

Our Pathway to Net Zero | City & Guilds (cityandguilds.com)

Centres should consider their own carbon footprint when delivering this qualification and consider reasonable and practical ways of delivering this qualification with sustainability in mind. This could include:

- reviewing purchasing and procurement processes (such as buying in bulk to reduce the amount of travel time and energy, considering and investing in the use of components that can be reused, instead of the use of disposable or single use consumables)

- reusing components wherever possible
- waste procedures (ensuring that waste is minimised, recycling of components is in place wherever possible)
- minimising water use and considering options for reuse/salvage as part of plumbing activities wherever possible.

Support materials

The following resources are available for these qualifications:

Description	How to access
Qualification Handbook	www.cityandguilds.com

4 Assessment

Assessment of the qualification

Candidates must have a completed portfolio of evidence for each unit.

Assessment strategy

Units are assessed through a portfolio of evidence. All evidence in the portfolio for the skills learning outcomes must be generated in the workplace or a realistic working environment.

Portfolio of evidence

Candidate 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 candidates' 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 quality assurers, 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.

Evidence sources

A portfolio of evidence will typically include several pieces of evidence – it must contain sufficient evidence to demonstrate the knowledge and skills required for each appropriate unit.

Evidence sources may include:

- training logbooks
- centre-produced worksheets and activities
- annotated photographs
- video clips (maximum duration in total = 10 minutes)
- workplace documentation/records, for example job cards/job sheets, equipment check/maintenance/service records, parts order records.

This is not a definitive list; other evidence sources are permitted.

The evidence provided must be valid and attributable to the candidate; the portfolio of evidence must contain a statement from the centre confirming this.
Evidence **must not** include:

- any methods of self-assessment

- any employer contributions should focus on direct observation of evidence (for example witness statements) of competence rather than opinions.

Time constraints

Candidates must finish their assessment within their period of registration.

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 for these qualifications.

5 Units

Structure of the units

These units each have the following:

- City & Guilds reference number
- unit accreditation number (UAN)
- title
- level
- credit value
- guided learning hours (GLH)
- unit aim
- relationship to NOS
- endorsement by a sector
- learning outcomes, which are comprised of a number of ssessment criteria.

Guidance for delivery of the units

All learning outcomes and assessment criteria for all the units are listed in the following section.

These qualifications comprise a number of **units**. A unit describes what is expected of a competent person in particular aspects of their job.

Each **unit** is divided into **learning outcomes** which describe in further detail the skills and knowledge that a candidate should possess.

Each **learning outcome** has a set of **assessment criteria** (performance and knowledge and understanding) which specify the desired criteria that must be satisfied before an individual can be said to have performed to the agreed standard.

Unit 327 Maintain and prepare the workshop for work with precious metal objects

UAN:	H/506/1635
Level:	3
Credit value:	3
GLH:	17
Relationship to NOS:	This unit relates to NOS J2.1 Contribute to keeping the workshop tidy and safe.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when maintaining and preparing workshop areas for jewellery or silversmithing activities. This includes dealing with specific chemicals, storing equipment and materials in an appropriate way, and reporting identified problems.

Learning outcome

The learner will:

LO1 understand the importance of safe practice within a workshop environment

Assessment criteria

The learner can:

AC1.1 describe the safety controls used to deal with special chemicals and dangerous acids
AC1.2 explain how materials and equipment should be safely stored
AC1.3 differentiate the methods used for disposing of different types of waste safely
AC1.4 describe how valuable metal waste is recycled
AC1.5 justify the appropriate methods for cleaning down machinery
AC1.6 describe how tools, equipment and machinery should be maintained
AC1.7 explain reporting procedures within the organisation for when problems or issues occur

Learning outcome

The learner will:

LO2 be able to take part in the maintenance and preparation of workshop areas

Assessment criteria

The learner can:

AC2.1 prepare workshop area ready for work activities
AC2.2 implement their maintenance responsibilities in the workshop

Unit 328 Produce precious metal objects from detailed drawings and specifications

UAN:	L/506/1421
Level:	3
Credit value:	6
GLH:	42
Relationship to NOS:	This unit relates to NOS J2.2 Read jewellery manufacture or silversmithing drawings.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when producing jewellery, silverware or engraved items based on information provided within drawings and specifications.

Learning outcome

The learner will:

LO1 understand how drawings can be used to produce jewellery, silverware or engraved items

Assessment criteria

The learner can:

AC1.1 justify the methods used to review and extract dimensional and statistical information from technical drawings
AC1.2 explain the symbols, terminologies and conventions used with drawings and specifications
AC1.3 explain the scales and tolerances used within drawings
AC1.4 describe how to produce detailed drawings by hand and by computer
AC1.5 describe how to produce templates for your work
AC1.6 explain the material requirements for the manufacture of an article

Learning outcome

The learner will:

LO2 be able to produce and use drawings to make jewellery, silverware or engraved items

Assessment criteria

The learner can:

AC2.1 produce and interpret complex drawings including:

a. the type of projection
b. perspective
c. scale
d. line thickness
e. spacing

AC2.2 justify the appropriate action to take if gaps or deficiencies in the information obtained is identified

AC2.3 use the information to develop a comparison between the dimensions of a finished article and the specification required

AC2.4 develop detailed drawings for a complex item based on their own ideas

AC2.5 apply the information provided in drawings to develop templates

AC2.6 use drawings to produce items using a range of tools or methods

Unit 329 Mark out and measure materials for the manufacture of precious metal objects

UAN:	T/506/1591
Level:	3
Credit value:	6
GLH:	40
Relationship to NOS:	This unit relates to NOS J2.3 Mark out and measure materials for jewellery or silverware components.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when marking out items for jewellery manufacture. This includes the use of drawings, assessing the suitability of materials and the production of templates.

Learning outcome

The learner will:

LO1 understand how to prepare materials for the manufacture of precious metal objects

Assessment criteria

The learner can:

AC1.1 describe the impact that ISO128 for technical drawing and BS308 for conventions has upon the manufacture of items
AC1.2 explain the principle of first and third angles
AC1.3 illustrate the use of orthographic and isometric projections
AC1.4 explain the use of scale, dimension line thickness and hatching when used on detailed drawings
AC1.5 describe the methods that should be used to mark out items
AC1.6 critically compare the range of tools and equipment that can be used to mark out items
AC1.7 critically compare the surface preparation requirements of a range of surfaces

Learning outcome

The learner will:

LO2 be able to prepare materials ready for the manufacture of precious metal objects

Assessment criteria

The learner can:

AC2.1 interpret key information from complex drawings including:

- the type of projection
- perspective
- scale
- line thickness
- spacing

AC2.2 identify the correct information for marking out complex items
AC2.3 evaluate equipment and materials for its suitability for use
AC2.4 prepare complex surfaces for marking out
AC2.5 produce templates suitable for the complex shape being marked out
AC2.6 implement marking out processes using a range of tools for measuring and marking out items
AC2.7 mark out items in a manner that avoids waste
AC2.8 evaluate the degree to which the marking out complies with the specifications and drawings worked with

Unit 330 Use mechanical methods to join precious metal components

UAN:	Y/506/1602
Level:	3
Credit value:	8
GLH:	58
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.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when using mechanical joints to form jewellery or silverware items. This includes being able to recognise and a range of different joining techniques.

Learning outcome

The learner will:

LO1 understand how to join complex jewellery or silverware components using mechanical methods

Assessment criteria

The learner can:

AC1.1 compare the range of complex, mechanical joint techniques used within the workplace
AC1.2 compare and contrast the most appropriate joint methods to be used in conjunction with a range of materials including:
- a. precious metals
- b. non-precious metals
- c. metallic materials
- d. non-metallic materials

AC1.3 explain the importance of dry assembling components together prior to joining
AC1.4 describe how to utilise joining methods that retain the appearance whilst maintaining the integrity of the joint
AC1.5 describe how to check that finished work meets the standard required

Learning outcome

The learner will:

LO2 be able to join complex jewellery or silverware components using mechanical methods

Assessment criteria

The learner can:

AC2.1 join components using a range of mechanical methods. Produce products which contain mechanical joints
AC2.2 check work to see that it meets the standards and tolerances required
AC2.3 complete work activity within the appropriate time limit

Unit 331 Produce tools and jigs for use in the manufacture of precious metal objects

UAN:	F/506/1710
Level:	3
Credit value:	8
GLH:	39
Relationship to NOS:	This unit relates to NOS J2.5 Cut and pierce jewellery or silverware components.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when producing tools and jigs used for the manufacture of jewellery or silverware items. This includes understanding how the tools and jigs are manufactured and assessing whether the learner can effectively use them to manufacture items.

Learning outcome

The learner will:

LO1 understand how to produce tools and jigs

Assessment criteria

The learner can:

AC1.1 describe the specific safety precautions to be taken when using the tools or jigs
AC1.2 describe the correct protective clothing that should be worn when making tools or jigs
AC1.3 explain the importance of keeping the work area safe and tidy
AC1.4 describe the checks that should be used to assess tools or jigs for:

a. dimensional accuracy
b. squareness
c. angle
d. surface finish

Learning outcome

The learner will:

LO2 be able to produce tools and jigs

Assessment criteria

The learner can:

AC2.1 produce the required tools and jigs using a range of materials
AC2.2 produce components which use tools or jigs in their manufacture
AC2.3 assess that the work is completed to an acceptable standard including:

a. dimensionally accurate
b. proportionally accurate
c. follow specific safety precautions
d. meets specification

Unit 332 Apply concepts of metallurgy to the production of precious metal objects

UAN:	L/506/1600
Level:	3
Credit value:	10
GLH:	86
Relationship to NOS:	This unit relates to NOS J2.6 File jewellery and silverware components.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit covers the skills and knowledge required to demonstrate and apply good knowledge of metallurgy to the work that the learner undertakes. The learner will be required to select and prepare the materials and apply specialist techniques to their work.

Learning outcome

The learner will:

LO1 understand the theoretical concepts of metallurgy

Assessment criteria

The learner can:

AC1.1 provide detailed definitions of the relevant metallurgy terminology used within the industry
AC1.2 compare the physical and mechanical properties of cast and cold worked metal
AC1.3 the physical impacts that rolling, hammering, fluxing, soldering and polishing have upon metals used
AC1.4 compare the physical and mechanical properties of a range of metals
AC1.5 compare the physical properties of precious metals with their alloys
AC1.6 compare the mechanical properties of precious metals with their alloys
AC1.7 explain how gases are absorbed and exuded during the melting and annealing process
AC1.8 describe the causes of contamination when melting and annealing metal
AC1.9 describe the process of re-crystallisation following melting and annealing
AC1.10 describe the causes and prevention of porosity particularly in lost wax investment casting

Learning outcome

The learner will:

LO2 understand how to apply metallurgy concepts to the production of precious metal objects

Assessment criteria

The learner can:

AC2.1 calculate the proportion of precious metals that make up specific alloys
AC2.2 explain how metals expand and contract during the annealing and quenching processes
AC2.3 explain how the composition of metals and alloys respond to:

- rolling
- hammering
- fluxing
- soldering
- polishing

AC2.4 explain how pickling can be implemented safely and effectively
AC2.5 describe the key risks and hazards associated with metallurgical processes
AC2.6 explain the implications of using different precious metal alloys
AC2.7 describe the features of the British Hallmarking and how it impacts on their work

Learning outcome

The learner will:

LO3 be able to use metallurgy concepts in the manufacture of precious metal objects

Assessment criteria

The learner can:

AC3.1 identify a range of precious metals and alloys
AC3.2 calculate the amounts of precious metal alloys required to make a specific alloy composition
AC3.3 implement a range of processes to alter the metallurgical properties of an item including:

- rolling
- hammering
- fluxing
- soldering
- polishing

AC3.4 know how to apply preventative action if porosity is identified
AC3.5 distinguish common faults associated with lost wax investment casting

Unit 333 Saw and pierce silverware components

UAN:	A/506/1706
Level:	3
Credit value:	13
GLH:	89
Relationship to NOS:	This unit relates to NOS J2.7 Produce formed jewellery or silverware components.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
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 silver-smithing work place.

Learning outcome

The learner will:

LO1 understand how to saw and pierce complex silverware components

Assessment criteria

The learner can:

AC1.1 describe the specific safety precautions to be taken when using sheet metal, sawing and piercing tools
AC1.2 critically compare the methods that may be used to mark out, drill and pierce complex shapes and patterns
AC1.3 justify the types of saw that should be used for different processes or methods
AC1.4 explain why different types of saw blade should be used for different processes or methods
AC1.5 explain the importance of keeping the work area safe and tidy to retain valuable waste (lemel)
AC1.6 describe how to check that pierced and sawn products meet the required standard

Learning outcome

The learner will:

LO2 be able to saw and pierce complex silverware components

Assessment criteria

The learner can:

AC2.1 interpret instructions for sawing and piercing complex components. Instructions to include:

a. verbal
b. design
c. technical drawings

AC2.2 identify and select the correct saw blades

AC2.3 cut out a range of complex items using a piercing saw frame. Shapes to include:

a. straight lines
b. spiral
c. round or oval holes
d. square or rectangular holes
e. symmetrical design fretwork

AC2.4 assess the degree to which products of work meet a given specification

Unit 334 Form complex silverware components

UAN:	A/506/1639
Level:	3
Credit value:	12
GLH:	84
Relationship to NOS:	This unit relates to NOS J2.8 Carry out permanent joining of jewellery or silverware components.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when working with silver to produce a range of shapes. This includes using a variety of methods and techniques to shape the components and to check that they meet the specified standard.

Learning outcome

The learner will:

LO1 understand how to form complex silverware components

Assessment criteria

The learner can:

AC1.1 explain how complex silverware components should be measured accurately
AC1.2 describe how three dimensional forms can be produced
AC1.3 describe how heat treatment techniques can be used in annealing
AC1.4 explain how material surfaces can be protected from unnecessary damage
AC1.5 describe how the correct tools and equipment should be used
AC1.6 describe how custom tooling can be produced
AC1.7 describe the materials suitable for the production of jigs and aids
AC1.8 describe the application of:

- raising
- forging
- chasing
- stamping
- spinning

in the production of complex silverware components
AC.9 describe how damage to the surface of materials can be avoided

AC1.10 describe how to check that finished work meets the standard required

Learning outcome

The learner will:

LO2 be able to form complex silverware components

Assessment criteria

The learner can:

AC2.1 produce three dimensional complex silverware components using a range of methods
AC2.2 produce hollow and solid components
AC2.3 produce complex silverware components using a range of techniques.
AC2.4 implement the production of complex silverware components whilst avoiding waste
AC2.5 assess finished work to see that it meets the standards and tolerances required including:

- dimensionally accurate
- correctly formed
- free from excessive tooling
- free from stretching
- free from blemishes

Unit 335 Join silverware components by soldering

UAN:	M/506/1640
Level:	3
Credit value:	9
GLH:	74
Relationship to NOS:	This unit relates to NOS J2.9 Polish and finish jewellery or silverware components.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when joining silverware components using soldering techniques. This includes understanding the properties of soldering materials and the items to be joined and the tools that should be used to complete the work.

Learning outcome

The learner will:

LO1 understand the characteristics of materials used in soldering

Assessment criteria

The learner can:

AC1.1 describe the impact of the grade of solder used upon the final joint strength
AC1.2 describe the impact and role of 'heat', 'flux' and 'solder' during hot joining techniques
AC1.3 compare the melting points of a range of metals used in silverware manufacture
AC1.4 explain how to identify when the melting point of a metal is about to be reached
AC1.5 describe the characteristics of a range of materials to assist with their identification
AC1.6 compare the appropriate joining methods that can be used for a variety of materials
AC1.7 describe the typical faults that can occur with joining techniques and processes and how to rectify faults if they are identified

Learning outcome

The learner will:

LO2 understand how to join complex silverware components by soldering

Assessment criteria

The learner can:

AC2.1 describe the specific safety precautions to be taken during the joining of components
AC2.2 describe the range of heating equipment available and the type, size and strength of flame associated with each
AC2.3 explain the importance of dry assembling components prior to joining
AC2.4 describe the procedures to follow when faults are identified
AC2.5 describe how chemicals should be safely used to clean finished work
AC2.6 describe how to check that finished work meets the standard required

---

Learning outcome

The learner will:

LO3 be able to join complex silverware components by soldering

Assessment criteria

The learner can:

AC3.1 produce a plan of work which ensures that the work is completed within a specified time
AC3.2 assemble silverware components in preparation for soldering using binding wire stitches and jigs
AC3.3 produce complex silverware components using a range of soldering techniques including:

- stick soldering for long joints
- soldered hinges
- pallions

AC3.4 join complex silverware components using a range of heating equipment
AC3.4 clean completed work
AC3.5 assess the work to see that it meets the standards and tolerances required
AC3.6 implement procedures to manage waste materials correctly and safely

Unit 336 Form complex jewellery components

UAN:	T/506/1638
Level:	3
Credit value:	12
GLH:	84
Relationship to NOS:	This unit relates to NOS J2.10 Produce hand engraving.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when forming jewellery components. This includes using a range of forming methods and the checking of work against a given specification.

Learning outcome

The learner will:

LO1 understand how to form complex jewellery components

Assessment criteria

The learner can:

AC1.1 explain how to accurately measure items to be formed
AC1.2 compare the methods that can be used to create complex three dimensional forms
AC1.3 compare how different heat treatment techniques are applied in annealing
AC1.4 describe the correct tools and equipment required when forming complex components
AC1.5 compare the materials suitable for making jigs or aids to create forms
AC1.6 describe how to avoid unnecessary damage to material surfaces
AC1.7 describe how to check finished work pieces for dimensional accuracy

Learning outcome

The learner will:

LO2 be able to form complex jewellery components

Assessment criteria

The learner can:

AC2.1 accurately form complex jewellery components using a range of methods to meet a specification

AC2.2 use a range of wire types to produce complex jewellery items according to a given specification. Wire types to include:

- round
- square
- rectangular

AC2.3 accurately form complex jewellery components using a range of sheet metal types including:

- flat sheet
- curved sheet
- concave sheet
- convex sheet

AC2.4 produce items whilst avoiding excessive waste material

AC2.5 assess the degree to which complex components are completed against a range of criteria including:

- items are dimensionally accurate
- items are correctly formed
- items are free from excessive tooling marks
- items are free from stretching
- items are free from blemishes
- meet the specification

AC2.6 evaluate the finished product against the given specification

Unit 337 Join jewellery components by soldering

UAN:	R/506/1596
Level:	3
Credit value:	9
GLH:	74
Relationship to NOS:	This unit relates to NOS J2.11 Identify and secure stones in settings.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when joining jewellery items using soldering techniques. This includes understanding the properties of soldering materials and the items to be joined and the tools that should be used to complete the work.

Learning outcome

The learner will:

LO1 understand the characteristics of materials used in soldering

Assessment criteria

The learner can:

AC1.1 describe the impact of the grade of solder used upon the final joint strength
AC1.2 describe the impact and role of 'heat', 'flux' and 'solder' during hot joining techniques
AC1.3 compare the melting points of a range of metals used in jewellery manufacture
AC1.4 explain how to identify when the melting point of a metal is about to be reached
AC1.5 describe the characteristics of a range of materials to assist with their identification
AC1.6 compare the appropriate joining method to be used for a variety of materials
AC1.7 describe the typical faults that can occur with joining techniques and processes
AC1.8 explain how to avoid typical faults that can occur

Learning outcome

The learner will:

LO2 understand how to join complex jewellery items by soldering

Assessment criteria

The learner can:

AC2.1 describe the specific safety precautions to be taken during the joining of components
AC2.2 describe the range of heating equipment available and the type, size and strength of flame associated with each
AC2.3 explain the importance of dry assembling components prior to joining
AC2.4 describe the procedures to follow when faults are identified
AC2.5 describe how chemicals should be safely used to clean finished work
AC2.6 describe how to check that finished work meets the standard required

---

Learning outcome

The learner will:

LO3 be able to join complex jewellery items by soldering

Assessment criteria

The learner can:

AC3.1 produce a plan of work which ensures that work is completed within a specified time
AC3.2 assemble jewellery items in preparation for soldering using binding wire stitches and jigs
AC3.3 produce complex jewellery components using a range of soldering techniques including:
- fine wire work
- peg set work

AC3.4 join complex jewellery items using a range of heating equipment
AC3.5 produce a range of complex jewellery using joined components
AC3.6 clean completed work
AC3.7 assess the work to see that it meets the standards and tolerances required
AC3.8 implement procedures to manage waste materials correctly and safely

Unit 338 Produce rubber moulds for lost wax casting

UAN:	R/506/1601
Level:	3
Credit value:	9
GLH:	68
Relationship to NOS:	This unit relates to NOS J2.12 Identify and explain methods and tools used in vitreous enamelling.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when producing rubber moulds to form forming jewellery components. This includes safely using a range of materials to form moulds and the assessing of their suitability.

Learning outcome

The learner will:

LO1 understand how to produce complex rubber moulds for lost wax casting

Assessment criteria

The learner can:

AC1.1 describe the specific safety practices and procedures to be observed when handling sharp instruments and chemicals
AC1.2 describe the features of chemicals and materials that are used in the production of rubber moulds for lost wax casting
AC1.3 describe the specific safety practices to be observed when transporting and storing materials used in rubber mould production
AC1.4 describe the specific materials to be used in the production of rubber moulds for lost wax casting
AC1.5 state the quantities and mixing ratios to be applied
AC1.6 state the working life of both materials and mixes
AC1.7 explain the importance of preparing master patterns and equipment before starting mould work
AC1.8 describe the impact of shrinkage upon mould manufacture
AC1.9 explain the rationale for producing different mould types and structures

AC1.10 critically compare the methods and techniques for mould manufacture
AC1.11 describe the methods and techniques for the removal of master patterns
AC1.12 describe how finished moulds should be checked to ensure they meet the standard required

Learning outcome

The learner will:

LO2 be able to produce complex rubber moulds for lost wax casting

Assessment criteria

The learner can:

AC2.1 select appropriate mould frame and sprue formers
AC2.2 assess master patterns for surface defects
AC2.3 evaluate master patterns in order to identify the appropriate cutting strategy
AC2.4 implement the correct techniques and procedures for producing and cutting vulcanized moulds
AC2.5 manufacture moulds using traditional un-vulcanised rubber and room temperature vulcanisation (RTV)
AC2.6 produce items using a range of mould cutting techniques including:

- two part mould
- three part mould
- Spiral cutting

AC2.7 remove master patterns in a way which prevents damage
AC2.8 implement checks to ensure that completed moulds meet the standard required

Unit 339 Produce jewellery components using wax casting

UAN:	A/506/1592
Level:	3
Credit value:	11
GLH:	84
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.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when working with wax and moulds to produce jewellery components. This includes the selection and maintenance of equipment and the calculation of materials used to implement the work.

Learning outcome

The learner will:

LO1 understand how to produce complex jewellery components using wax casting

Assessment criteria

The learner can:

AC1.1 describe the specific safety practices and procedures to be observed when casting
AC1.2 describe the specific materials to be used when wax casting
AC1.3 describe the specific quantities and rations to be applied when wax casting
AC1.4 distinguish the working life of materials and mixes used in wax casting
AC1.5 explain the importance of assembling wax trees
AC1.6 explain the calculations and formula used when assembling wax trees
AC1.7 describe how to implement 'investing' processes
AC1.8 explain the calculations and formula used when applying 'investing' processes
AC1.9 explain the importance of correct duration and temperatures for burn out
AC1.10 describe the methods and techniques used for the removal of work from investment

Learning outcome

The learner will:

LO2 understand how to maintain the quality of jewellery formed through wax casting

Assessment criteria

The learner can:

AC2.1 describe how to recognise faulty castings
AC2.2 describe the common defects that may arise during casting
AC2.3 explain how problems during casting may be rectified
AC2.4 describe how cast items should be cleaned

Learning outcome

The learner will:

LO3 understand how to maintain casting equipment

Assessment criteria

The learner can:

AC3.1 describe how casting equipment should be cleaned and maintained
AC3.2 describe how wax injection equipment should be cleaned and maintained
AC3.3 describe how vacuum processing equipment should be cleaned and maintained

Learning outcome

The learner will:

LO4 be able to produce complex jewellery components using wax casting

Assessment criteria

The learner can:

AC4.1 implement the correct preparatory work prior to waxing and casting
AC4.2 implement the correct techniques and procedures for wax injection
AC4.3 produce a range of complex components of varying sizes
AC4.4 assess wax components to check that they are free from surface defects
AC4.5 establish that sufficient material is available to allow for shrinkage
AC4.6 assemble wax components using the appropriate technique for the casting process employed
AC4.7 implement the correct techniques and procedures for investing
AC4.8 apply the correct burnout times
AC4.9 implement work according to organisational safety procedures
AC4.10 implement work in a manner that avoids damage to components and equipment
AC4.11 evaluate the finished product against the specification

Unit 340 Produce spun silverware components

UAN:	J/506/1711
Level:	3
Credit value:	11
GLH:	80
Relationship to NOS:	This unit relates to NOS J2.1 Contribute to keeping the workshop tidy and safe.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when working to produce spun silverware components. This includes selecting the correct materials and equipment and using them to produce a range of different items.

Learning outcome

The learner will:

LO1 understand how to produce complex spun silverware components

Assessment criteria

The learner can:

AC1.1 explain how to use appropriate drawing standards to interpret drawn images
AC1.2 describe the relevant mathematical formulae and calculations used
AC1.3 compare the methods used for creating spun forms
AC1.4 explain the function of annealing
AC1,5 explain the action of work hardening and how annealing addresses this
AC1.6 describe how to identify the different physical and working properties of metals
AC1.7 explain how to select the correct tools for a prescribed task
AC1.8 describe how to use the correct tools for a prescribed task
AC1.9 explain how to prepare chucks for spinning
AC1.10 describe how to select and use suitable materials to produce basic chucks and formers

Learning outcome

The learner will:

LO2 be able to produce complex spun silverware components

Assessment criteria

The learner can:

AC2.1 produce a range of complex spun items including:

- matching hollow shapes
- rolled edges
- thick material
- thin material

AC2.2 produce complex large scale components in line with given specification
AC2.3 produce complex small scale components in line with given specification
AC2.4 produce complex spun items from a range of materials in line with given specification
AC2.5 assess the finished work to see that it meets the standards and tolerances required including:

- dimensionally accurate
- correctly formed
- free from excessive tooling
- free from stretching
- free from blemishes

AC2.6 evaluate how the work meets the specification

Unit 341 Polish and finish silverware components to a commercial standard

UAN:	Y/506/1714
Level:	3
Credit value:	18
GLH:	156
Relationship to NOS:	This unit relates to NOS J2.1 Contribute to keeping the workshop tidy and safe.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when using polishing techniques to produce jewellery components. This includes understanding the tools and mediums used, and how they should be used to produce a 'commercial finish'.

Learning outcome

The learner will:

LO1 understand how to prepare polishing equipment for use

Assessment criteria

The learner can:

AC1.1 describe the specific hazards that may occur when using polishing equipment and how these may be managed/avoided
AC1.2 describe the correct way to safely use and prepare polishing equipment
AC1.3 explain how to specify the use of common compounds including:

- abrasive
- polishing
- finishing
- matting

AC1.4 explain how to specify the use of polishing tools including:

- mops
- brushes
- felt bobs
- composition wheels

AC1.5 describe how to prepare and dress mops and bobs
AC1.6 describe the function of materials used in barrel polishing

---

Learning outcome

The learner will:

LO2 understand how to use polishing techniques

Assessment criteria

The learner can:

AC2.1 illustrate the correct methods for presenting objects to the polishing lathe
AC2.2 describe the correct sequence for removing fire stain, preliminary abrasive polishing, bright polishing and finishing
AC2.3 summarise the features of a commercially acceptable standard
AC2.4 describe how to reach a commercially acceptable standard
AC2.5 describe how to hand polish items
AC2.6 describe how to barrel polish items
AC2.7 explain how ultrasonic cleaning machines can be used
AC2.8 explain the use of sawdust drying in the polishing process
AC2.9 describe how plating equipment can be used
AC2.10 state the micron thickness of the product used when plating

---

Learning outcome

The learner will:

LO3 be able to polish complex silverware components to a commercial finish

Assessment criteria

The learner can:

AC3.1 produce a commercially acceptable finish on completed work
AC3.2 polish work made from a range of precious metals
AC3.3 finish work using a range of equipment
AC3.4 check work to see that it meets the standards and tolerances required including:

- dimensionally accurate
- correctly
- free from fire stain
- free from stretching
- free from blemishes
- meets specification

Unit 342 Produce CAD designs for precious metal objects

UAN:	F/506/1593
Level:	3
Credit value:	19
GLH:	162
Relationship to NOS:	This unit relates to NOS J2.1 Contribute to keeping the workshop tidy and safe.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when using CAD software and machinery to produce designs and prototypes for jewellery or silverware items. This includes the use of software, working with drawings and identifying design problems.

Learning outcome

The learner will:

LO1 understand how to use CAD software to produce designs and prototypes

Assessment criteria

The learner can:

AC1.1 describe the typical faults that can occur with CAD techniques and processes
AC1.2 describe the procedures to follow when faults are identified including reporting procedures
AC1.3 describe the principles of computer generated graphics and drafting skills
AC1.4 explain how to inspect for errors on any CAD designs made
AC1.5 explain the action that should be taken when CAD design errors are identified
AC1.6 describe the documentation that should be completed at the end of CAD activities
AC1.7 illustrate the mathematical calculation that should be used in design
AC1.8 describe how to interpret drawn images
AC1.9 describe the current engineering drawing conventions used

Learning outcome

The learner will:

LO2 be able to produce designs using CAD software

Assessment criteria

The learner can:

AC2.1 select the appropriate software for the required design
AC2.2 use the appropriate software to produce product complex designs

Unit 343 Produce CAM prototypes for precious metal objects

UAN:	M/506/1637
Level:	3
Credit value:	12
GLH:	93
Relationship to NOS:	This unit relates to NOS J2.1 Contribute to keeping the workshop tidy and safe.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when using CAM software and machinery to produce designs and prototypes for jewellery or silverware items. This includes the use of software, working with drawings and identifying design problems.

Learning outcome

The learner will:

LO1 understand how to use CAM technology to produce prototypes

Assessment criteria

The learner can:

AC1.1 describe the CAM techniques currently used
AC1.2 describe the typical faults that can occur with CAM techniques and processes
AC1.3 describe how prototypes can be manufactured using CAM techniques
AC1.4 explain how finished prototypes can be checked to ensure they meet required standards

Learning outcome

The learner will:

LO2 be able to produce prototypes using CAM

Assessment criteria

The learner can:

AC2.1 produce a sample model of a new product using CAM equipment
AC2.2 evaluate the work to see that it is completed to an acceptable standard

Unit 344 Produce chased items for precious metal objects

UAN:	J/506/1708
Level:	3
Credit value:	14
GLH:	106
Relationship to NOS:	This unit relates to NOS J2.1 Contribute to keeping the workshop tidy and safe.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when implementing engraving chasing techniques. This includes developing and understanding of the concepts associated with chasing design and how they can be interpreted in finished work.

Learning outcome

The learner will:

LO1 understand how drawings and specifications are used to produce chased work

Assessment criteria

The learner can:

AC1.1 describe how technical drawings and images for use in producing chased work can be interpreted
AC1.2 compare the methods used for illustrating designs
AC1.3 describe the relevant mathematical formulae and calculation used in producing chased work
AC1.4 describe when heat treatment might be used in the production of chased work
AC1.5 explain how to identify the physical and working properties of metal

Learning outcome

The learner will:

LO2 understand how to use tools and materials correctly to produce chased work

Assessment criteria

The learner can:

AC2.1 explain how to select and use the correct tools and equipment for prescribed tasks and processes
AC2.2 compare the materials suitable for making jigs and aids for chasing
AC2.3 describe how to apply and use 'snarling' as a forming technique
AC2.4 describe a range of commonly used chasing techniques
AC2.5 describe the methods for chasing three dimensional forms
AC2.6 explain the techniques used for punch (textured and plain) manufacturing

---

Learning outcome

The learner will:

LO3 be able to produce complex chased items

Assessment criteria

The learner can:

AC3.1 interpret drawings and specifications for chased work
AC3.2 transfer designs to metal surfaces using appropriate tools and templates
AC3.3 produce designs for chased items
AC3.4 prepare punches for use checking that they are sufficiently hardened and tempered
AC3.5 develop and mix pitch recipes
AC3.6 produce a range of chased work using a variety of techniques
AC3.7 evaluate the work to check that it is completed to an acceptable standard including:

- dimensionally accurate
- correctly formed
- free from excessive tooling
- free from stretching
- free from blemishes
- meets specification

Unit 345 Set gemstones by hand in the manufacture of jewellery items

UAN:	H/506/1652
Level:	3
Credit value:	21
GLH:	177
Relationship to NOS:	This unit relates to NOS J2.1 Contribute to keeping the workshop tidy and safe.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when producing gemstone setting by hand. This includes understanding the principles of gemology in order to be able to recognise the types and features of stones. The unit also addresses the skills needed to effectively produce a range of different gemstone setting styles.

Learning outcome

The learner will:

LO1 understand the principles of working with gemstones

Assessment criteria

The learner can:

AC1.1 describe the basic concepts of gemology
AC1.2 describe the common terminology associated with gemstones and their use

Learning outcome

The learner will:

LO2 understand how to set gemstones by hand

Assessment criteria

The learner can:

AC2.1 describe the commonly used setting techniques and procedures

AC2.2 describe the range and size of tools used in setting gemstones
AC2.3 explain how gem setting tools should be used
AC2.4 explain how the suitability of the metal for housing a gemstone can be assessed
AC2.5 describe how gem setting tools should be maintained
AC2.6 describe the cleaning procedures used for equipment, tools and the workshop
AC2.7 describe the sequence of application to remove surface marks
AC2.8 explain how potential difficulties in gem setting can be identified
AC2.9 describe the clean up procedures to be implemented after setting:

- filing
- grain tooling
- buffing

Learning outcome

The learner will:

LO3 be able to set gemstones by hand

Assessment criteria

The learner can:

AC3.1 identify the setting requirements of gemstones
AC3.2 assess the gemstones for flaws, cracks or defects
AC3.3 identify the metal being used for the setting
AC3.4 identify the appropriate number of stones to meet the setting requirements
AC3.5 correctly prepare materials and equipment for the setting process
AC3.6 accurately adjust stones in the settings according to specification
AC3.7 produce a range of secure gemstone setting styles
AC3.8 produce secure gemstone settings using a range of methods
AC3.9 work with a range of metals to produce gemstone settings in a range of settings
AC3.10 assess that the work is completed to an acceptable standard including:

- dimensionally accurate
- proportionally accurate
- meets specification

Unit 346 Implement electro-deposition on precious metal components

UAN:	H/506/1716
Level:	3
Credit value:	11
GLH:	66
Relationship to NOS:	This unit relates to NOS J2.1 Contribute to keeping the workshop tidy and safe.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when producing components which undergo electro-deposition processes. This includes understanding the principles of how electro-deposition works and how it should be applied to a range of different materials.

Learning outcome

The learner will:

LO1 understand the principles of electro-deposition in jewellery and silverware manufacture

Assessment criteria

The learner can:

AC1.1 describe the matrix of materials used in electro-deposition
AC1.2 explain how electro-deposition materials can be made conductive
AC1.3 describe the limitations of plating
AC1.4 describe the characteristics of mandrel/matrix and solutions
AC1.5 describe the dangers of interaction between materials during production
AC1.6 describe the common contamination problems that may occur
AC1.7 explain the precautions that may be implemented to avoid contamination

Learning outcome

The learner will:

LO2 understand how to use electro-deposition techniques

Assessment criteria

The learner can:

AC2.1 explain how unnecessary damage to metal surfaces can be avoided
AC2.2 describe how the correct chemicals and equipment should be selected to ensure they are suitable for the task
AC2.3 explain how plating solutions should be maintained and kept free from contaminants
AC2.4 describe how to recognise common faults with electro-deposition techniques
AC2.5 explain how common faults should be dealt with
AC2.6 explain which neutralising agents can be used for cleaning tanks
AC2.7 describe how to determine the most appropriate part of the tank for specified treatments
AC2.8 describe how uneven or insufficient deposition and completion can be recognised
AC2.9 describe how to separate core mandrels

Learning outcome

The learner will:

LO3 understand the health and safety requirements when implementing electro-deposition techniques

Assessment criteria

The learner can:

AC3.1 explain the importance of safe and prompt removal of chemicals and waste materials
AC3.2 describe how materials can be disposed of in an environmentally acceptable manner

---

Learning outcome

The learner will:

LO4 be able to use electro-deposition techniques in jewellery or silverware manufacture

Assessment criteria

The learner can:

AC4.1 select and assemble appropriate equipment and materials
AC4.2 produce a selection of items using a range of electro-deposition techniques
AC4.3 produce electroplate on a range of metals
AC4.4 implement work in a manner that does not cause risk or injury to themselves or others
AC4.5 implement work in a manner that prevents damage to components and equipment
AC4.6 assess that the work is completed to an acceptable standard including:

- dimensionally accurate
- proportionally accurate
- meets specification

Unit 347 Implement electroforming to produce precious metal components

UAN:	K/506/1717
Level:	3
Credit value:	11
GLH:	66
Relationship to NOS:	This unit relates to NOS J2.1 Contribute to keeping the workshop tidy and safe.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when producing components which undergo electro-forming processes. This includes understanding the principles of how electro-deposition works and how it should be applied to a range of different materials.

Learning outcome

The learner will:

LO1 understand the principles of electroforming in jewellery and silverware manufacture

Assessment criteria

The learner can:

AC1.1 describe the limitations of plating and electroforming
AC1.2 describe the characteristics of mandrel/matrix and solutions
AC1.3 describe the dangers of interaction between materials during production
AC1.4 describe the common contamination problems that may occur
AC1.5 explain the precautions that may be implemented to avoid contamination

Learning outcome

The learner will:

LO2 understand how to use electroforming techniques

Assessment criteria

The learner can:

AC2.1 explain how unnecessary damage to metal surfaces can be avoided
AC2.2 describe how the correct chemicals and equipment should be selected to ensure it is suitable for the task
AC2.3 explain how plating and electroforming solutions should be maintained and kept free from contaminants
AC2.4 describe how to recognise common faults with electroforming techniques
AC2.5 explain how common faults should be dealt with
AC2.6 explain which neutralising agents can be used for cleaning tanks
AC2.7 explain how to determine the most appropriate part of the tank for specified treatments
AC2.8 describe how to separate core mandrels

Learning outcome

The learner will:

LO3 understand the health and safety requirements when implementing electroforming techniques

Assessment criteria

The learner can:

AC3.1 explain the importance of safe and prompt removal of chemicals and waste materials
AC3.2 describe how materials can be disposed of in an environmentally acceptable manner

---

Learning outcome

The learner will:

LO4 be able to use electroforming techniques in jewellery or silverware manufacture

Assessment criteria

The learner can:

AC4.1 select and assemble materials and equipment required
AC4.2 produce a selection of items using a range of electroforming techniques according to specification
AC4.3 implement electroforming processes with a range of materials including:

- metal
- wax

AC4.4 implement work in a manner that does not cause risk or injury to themselves or others
AC4.5 implement work in a manner that prevents damage to components and equipment
AC4.6 assess that the work is completed to an acceptable standard including:

- dimensionally accurate
- proportionally accurate
- meets specification

Unit 348 Maintain knowledge of the jewellery industry, allied trades and related technologies

UAN:	T/506/1641
Level:	3
Credit value:	6
GLH:	36
Relationship to NOS:	This unit relates to NOS J2.1 Contribute to keeping the workshop tidy and safe.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when developing working knowledge of new technologies and practices used within the jewellery, allied trades and related technologies industry.

Learning outcome

The learner will:

LO1 understand how to maintain up to date knowledge of industry working practices

Assessment criteria

The learner can:

AC1.1 describe where information and advice about industry trends and opportunities might be gained
AC1.2 justify the importance of keeping abreast of current trends and technologies
AC1.3 explain how information about current trends and technologies can be effectively presented to colleagues
AC1.4 describe how personal contacts and networks can be created to assist with on-going personal development

Learning outcome

The learner will:

LO2 understand how to develop an awareness of employment opportunities within the jewellery sector

Assessment criteria

The learner can:

AC2.1 identify the key trade journals which provide information regarding employment opportunities
AC2.2 identify the key employers and sectors/sub sector where career progression may be available
AC2.3 identify the progression opportunities available within the organisation
AC2.4 describe the impact of emerging opportunities upon their own employment prospects
AC2.5 describe the impact that national and international markets may have upon career progression

---

Learning outcome

The learner will:

LO3 be able to implement activity to develop an up to date knowledge of industry working practices

Assessment criteria

The learner can:

AC3.1 implement planned activities which keep them up to date in regards to existing and emerging technologies
AC3.2 assess the degree to which emerging technologies may impact on working practices
AC3.3 present clear and accurate information relating to findings to colleagues
AC3.4 evaluate the effectiveness of their development activities

Unit 349 Polish and finish jewellery components to a commercial standard

UAN:	F/506/1707
Level:	3
Credit value:	18
GLH:	156
Relationship to NOS:	This unit relates to NOS J2.1 Contribute to keeping the workshop tidy and safe.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when using polishing techniques to produce silverware components. This includes understanding the tools and mediums used, and how they should be used to produce a 'commercial finish'.

Learning outcome

The learner will:

LO1 understand how to prepare polishing equipment for use

Assessment criteria

The learner can:

AC1.1 describe the specific hazards that may occur when using polishing equipment and how these may be managed/avoided
AC1.2 describe the correct way to safely use and prepare polishing equipment
AC1.3 explain how to specify the use of common compounds including:

- abrasive
- polishing
- finishing
- matting

AC1.4 explain how to specify the use of polishing tools including:

- mops
- brushes
- felt bobs
- composition wheels

AC1.5 describe how to prepare and dress mops and bobs
AC1.6 describe the function of materials used in barrel polishing

---

Learning outcome

The learner will:

LO2 understand how to use polishing techniques

Assessment criteria

The learner can:

AC2.1 describe the correct methods for presenting objects to the polishing lathe
AC2.2 describe the correct sequence for removing fire stain, preliminary abrasive polishing, bright polishing and finishing
AC2.3 illustrate the features of a commercially acceptable standard
AC2.4 describe how to reach a commercially acceptable standard
AC2.5 describe how to hand polish items
AC2.6 describe how to barrel polish items
AC2.7 explain how ultrasonic cleaning machines can be used
AC2.8 explain the use of sawdust drying in the polishing process
AC2.9 describe how plating equipment can be used
AC2.10 state the micron thickness of the product used when plating

---

Learning outcome

The learner will:

LO3 be able to polish complex jewellery components to a commercial finish

Assessment criteria

The learner can:

AC3.1 produce a commercially acceptable finish on completed work
AC3.2 polish work made from a range of precious metals
AC3.3 finish work using a range of equipment
AC3.4 check work to see that it meets the standards and tolerances required including:

- dimensionally accurate
- correctly formed
- free from fire stain
- free from stretching
- free from blemishes
- meets specification

Unit 350 Produce enamelled surfaces for precious metal objects

UAN:	F/506/1643
Level:	3
Credit value:	26
GLH:	195
Relationship to NOS:	This unit relates to NOS J2.1 Contribute to keeping the workshop tidy and safe.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when implementing techniques to produce enamelled surfaces. This includes understanding the theoretical concepts behind the use of varying materials to produce enamelled effects, and the processes used to generate them.

Learning outcome

The learner will:

LO1 understand the theoretical concepts which apply to enamelling

Assessment criteria

The learner can:

AC1.1 define the terminology used when applying enamelling techniques
AC1.2 describe how to identify different enamelling techniques
AC1.3 classify the correct firing temperatures for different types of metal and enamel
AC1.4 define the qualities of different types of silver including:

- standard
- britannia
- fine silver

AC1.5 describe the use of UV cured resin products
AC1.6 describe the differences between a range of different types of enamel including:

- opaque
- transparent
- opalescent
- wet process

Learning outcome

The learner will:

LO2 understand how to apply enamelling techniques safely

Assessment criteria

The learner can:

AC2.1 describe the relevant health and safety practices that should be applied when producing enamelled items
AC2.2 describe how enamelling materials should be stored and safely handled in the workshop
AC2.3 describe how chemicals used in enamelling processes should be handled and disposed of safely
AC2.4 explain how to safely use the correct tools and equipment for prescribed tasks and processes

Learning outcome

The learner will:

LO3 understand how to produce complex enamelled items

Assessment criteria

The learner can:

AC3.1 describe how transparent enamel can be used on a range of textured surfaces
AC3.2 explain how designs can be copied
AC3.3 explain how to produce multiples of a given design using a range of techniques including:

- casting
- photo-etching
- die stamping

AC3.4 explain how to increase and reduce the size of designs
AC3.5 explain how faults in specifications might be identified
AC3.6 describe the appropriate actions to follow when overcoming faults in specifications
AC3.7 describe the basic techniques used for cutting and carving
AC3.8 describe the basic techniques used for etching
AC3.9 describe the correct fabrication requirements for enamel including reference to :

- thickness of metal
- high melting solder
- fittings and findings

AC3.10 explain how metal surfaces should be prepared including:

- standard silver
- britannia silver
- fine silver

AC3.11 explain how to wash and grind enamel appropriate to the form and layout required
AC3.12 describe the commonly used processes used to finish enamel and metal
AC3.13 describe the sequence of application to remove enamel

Learning outcome

The learner will:

LO4 be able to produce complex enamelled items

Assessment criteria

The learner can:

AC4.1 produce complex enamelled work on a range of metals using appropriate tools
AC4.2 produce complex enamelled work to a given design on a range of surfaces
AC4.3 produce complex enamelled work using a range of techniques including:

- cloisonné
- champlevé, using basic carving and acid etching

AC4.4 produce texture prior to enamelling using engraving tools and acid etching
AC4.5 assess that the work is completed to an acceptable standard including:

- dimensionally accurate
- proportionally accurate
- meets specification

Unit 351 Produce engraved surfaces for precious metal objects

UAN:	R/506/1646
Level:	3
Credit value:	20
GLH:	69
Relationship to NOS:	This unit relates to NOS J2.1 Contribute to keeping the workshop tidy and safe.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when designing and implementing engraving techniques. This includes developing and understanding of the concepts associated with design and how designs can be interpreted using a variety of engraving techniques.

Learning outcome

The learner will:

LO1 be able to prepare for the implementation of engraving processes

Assessment criteria

The learner can:

AC1.1 develop a plan which identifies the materials required
AC1.2 identify the correct equipment required.
AC1.3 evaluate work instructions to identify the design to be engraved

Learning outcome

The learner will:

LO2 be able to produce engraved surfaces

Assessment criteria

The learner can:

AC2.1 select and assemble correct equipment and materials required

AC2.2 produce engraved items in a range of materials
AC2.3 produce work according to a range of engraving designs
AC2.4 produce engraved work following a specification on a range of surfaces including:

- flat
- concave
- convex

AC2.5 engrave work using a 2D and 3D pantograph
AC2.6 engrave work using CNC equipment
AC2.7 effectively remove unwanted engraving and slips
AC2.8 evaluate the completed work to check that it is to an acceptable standard including:

- dimensionally accurate
- proportionately correct
- meets specification

Unit 352 Understand how to produce engraved surfaces for precious metal objects

UAN:	D/506/1648
Level:	3
Credit value:	13
GLH:	92
Relationship to NOS:	This unit relates to NOS J2.1 Contribute to keeping the workshop tidy and safe.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when designing and implementing engraving techniques. This includes developing and understanding of the concepts associated with design and how designs can be interpreted using a variety of engraving techniques.

Learning outcome

The learner will:

LO1 understand how to work safely when engraving components

Assessment criteria

The learner can:

AC1.1 describe the workplace health and safety requirements to be followed when engraving items
AC1.2 explain how engraved items and tools should be safely stored and handled in the workshop
AC1.3 state how chemicals should be stored, handled and disposed of

Learning outcome

The learner will:

LO2 understand how to use engraving tools correctly

Assessment criteria

The learner can:

AC2.1 explain how engraving tools should be set up
AC2.2 explain how engraving tools should be hardened and tempered
AC2.3 explain how engraving tools should be sharpened whilst in use
AC2.4 describe the methods used to prepare work for engraving
AC2.5 describe how machines and computers can be used to carry out engraving processes

---

Learning outcome

The learner will:

LO3 understand how to implement engraving techniques

Assessment criteria

The learner can:

AC3.1 explain how to interpret pictorial work represented as:
- a line
- a dot
- texture

AC3.2 describe how designs can be copied
AC3.3 explain how designs can be increased and reduced in size
AC3.4 explain how to identify materials to be engraved
AC3.5 describe the processes of carving
AC3.6 describe how to cut different types of engraved lines including:
- flat scorper
- threading
- flange cut (bright cut)
- v-cut

AC3.7 explain how materials can be etched
AC3.8 describe how to combine multi-metals in a base material for overlay and inlay
AC3.9 describe how to prepare templates for pattern making, hand engraving and machine work
AC3.10 illustrate the sequence of processes for hand finishing and machine polishing

---

Learning outcome

The learner will:

LO4 understand how the quality of engraving can be maintained

Assessment criteria

The learner can:

AC4.1 explain the techniques used for erasure
AC4.2 explain how to identify common faults that might be present within specifications
AC4.3 describe how common faults in specifications might be resolved
AC4.4 describe how suitable surface treatments can be identified
AC4.5 describe how surface treatments can be used to achieve a desired effect

Learning outcome

The learner will:

LO5 understand the concepts and conventions that influence engraving design

Assessment criteria

The learner can:

AC5.1 describe the basic metallurgy of materials suitable for engraving
AC5.2 describe how letter forms should be laid out, including inscriptions and monograms
AC5.3 how scrollwork and ornamental patterns should be laid out
AC5.4 describe how a range of concepts can be interpreted when preparing for engraving including:

- line
- shape
- shading

AC5.5 explain the basic heraldic rules and terminology
AC5.6 explain the basic use of colour in heraldry

Unit 353 Saw and pierce jewellery components

UAN:	T/506/1705
Level:	3
Credit value:	13
GLH:	89
Relationship to NOS:	This unit relates to NOS J2.1 Contribute to keeping the workshop tidy and safe.
Endorsement by sector:	This unit is endorsed by Creative and Cultural Skills.
Aim:	This unit aims to assess the candidate's ability and understanding when using a saw to produce pierced silverware components. This includes the selection of tools and the application of a number of different shapes.

Learning outcome

The learner will:

LO1 understand how to saw and pierce complex jewellery components

Assessment criteria

The learner can:

AC1.1 describe the specific safety precautions to be taken when using sheet metal, sawing and piercing tools
AC1.2 critically compare the methods that may be used to mark out, drill and pierce complex shapes and patterns
AC1.3 justify the types of saw that should be used for particular processes or methods
AC1.4 explain why different types of saw blade should be used for different processes or methods
AC1.5 explain the importance of keeping the work area safe and tidy to retain valuable waste (lemel)
AC1.6 describe how to check that pierced and sawn products meet the required standard

Learning outcome

The learner will:

LO2 be able to saw and pierce complex jewellery components

Assessment criteria

The learner can:

AC2.1 interpret instructions for sawing and piercing complex components. Instructions to include:

- verbal
- design
- technical drawings

AC2.2 identify and select the correct saw blades

AC2.3 cut out a range of complex items using a piercing saw frame. Shapes to include:

- parallel straight lines
- parallel curved lines
- round back holes
- square back holes
- honeycomb
- symmetrical design fretwork

AC2.4 assess the degree to which products of work meet a given specification

Appendix 1 Relationships to other qualifications

Literacy, language, numeracy and ICT skills development

These qualifications can develop skills that can be used in the following qualifications:

Functional Skills (England) – see **www.cityandguilds.com**
Essential Skills (Northern Ireland) – see **www.cityandguilds.com**
Essential Skills Wales – see **www.cityandguilds.com**

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 **Centre document library** on **www.cityandguilds.com** or click on the links below:

Centre Handbook: Quality Assurance Standards

This document is for all approved centres and provides guidance to support their delivery of our qualifications. It includes information on:

- centre quality assurance criteria and monitoring activities
- administration and assessment systems
- centre-facing support teams at City & Guilds/ILM
- centre quality assurance roles and responsibilities.

The Centre Handbook should be used to ensure compliance with the terms and conditions of the centre contract.

Centre Assessment: Quality Assurance Standards

This document sets out the minimum common quality assurance requirements for our regulated and non-regulated qualifications that feature centre-assessed components. Specific guidance will also be included in relevant qualification handbooks and/or assessment documentation.

It incorporates our expectations for centre internal quality assurance and the external quality assurance methods we use to ensure that assessment standards are met and upheld. It also details the range of sanctions that may be put in place when centres do not comply with our requirements or actions that will be taken to align centre marking/assessment to required standards. Additionally, it provides detailed guidance on the secure and valid administration of centre assessments.

Access arrangements: When and how applications need to be made to City & Guilds 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 document library** also contains useful information on such things as:

- conducting examinations
- registering learners
- appeals and malpractice.

Useful contacts

Please visit the **Contact us** section of the City & Guilds website.

City & Guilds

For over 140 years, we have worked with people, organisations and economies to help them identify and develop the skills they need to thrive. We understand the life-changing link between skills development, social mobility, prosperity and success. Everything we do is focused on developing and delivering high-quality training, qualifications, assessments and credentials that lead to jobs and meet the changing needs of industry.

We partner with our customers to deliver work-based learning programmes that build competency to support better prospects for people, organisations and wider society. We create flexible learning pathways that support lifelong employability because we believe that people deserve the opportunity to (re)train and (re)learn again and again – gaining new skills at every stage of life, regardless of where they start.

The City & Guilds community of brands includes Gen2, ILM, Intertrain, Kineo and The Oxford Group.

Copyright

City & Guilds reviews its Qualifications on a regular basis to ensure they remain current, relevant, and meet industry and learner needs.

This Qualification Handbook however may contain references to historic information, such as former organisations, obsolete frameworks, codes or standards, or retired units and qualifications. This information is included for reference purposes only.

Published by City & Guilds, a registered charity established to promote education and training.

City & Guilds of London Institute
Giltspur House
5–6 Giltspur Street
London
EC1A 9DE

cityandguildsgroup.com