



Regulated Qualifications Unit and Assessment Specification

Unit title	Produce Plated Precious Metal Objects
Regulator unit code	K/503/1519
SQA unit code	H2T5 53
SSC ref	J4.18

History of changes

Publication date: October 2012

Version: 02 (November 2017)

Version number	Date	Description	Authorised by
02	November 2017	Unit specification updated to reflect current Ofqual terminology	Qualifications Officer

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Regulated qualifications unit specification

Title	Produce Plated Precious Metal Objects	
Level	4	
Credit value	14	
Learning outcomes	Assessment criteria	
The learner will:	The learner can:	
1 Understand the principles of electro-deposition in jewellery and silverware manufacture.	1.1 Explain how the relevant mathematical formulae and calculations can be applied.	1.2 Describe the use of stopping agents and solvents.
	1.3 Critically evaluate the limitations of plating.	
2 Understand how to use electro-deposition techniques.	2.1 Explain how unnecessary damage to metal surfaces can be avoided.	2.2 Describe how to select the correct chemicals and equipment for prescribed tasks and processes.
	2.3 Describe the materials used to create articles.	2.4 Compare the characteristics of mandrel/matrix solutions.
	2.5 Describe the dangers of interactions of materials during production.	2.6 Describe the various contamination problems that may occur.
	2.7 Critically compare the precautions that should be implemented to avoid contamination.	2.8 Describe the action to be taken when faults arise with equipment.
	2.9 Describe the neutralising agents that should be used for cleaning tanks.	

Learning outcomes	Assessment criteria
The learner will:	The learner can:
	<p>2.10 Describe how neutralising agents can be recognised.</p> <p>2.11 Describe how chemical solutions can be maintained at optimal condition.</p>
<p>3 Be able to use electro-deposition techniques in the manufacture of precious metal items.</p>	<p>3.1 Produce a selection of items using a range of electro-deposition techniques including:</p> <ul style="list-style-type: none"> ◆ multi-plating ◆ parcel gilding ◆ matrix electroforming <p>3.2 Produce electroplate on a range of materials including:</p> <ul style="list-style-type: none"> ◆ metal ◆ plastic <p>3.3 Implement work in a manner that does not cause risk or injury to themselves or others.</p> <p>3.4 Implement work in a manner that prevents damage to components and equipment.</p>
<p>4 Be able to evaluate own activity to improve future performance.</p>	<p>4.1 Assess the relative success of the methods used to identify areas for improvement.</p> <p>4.2 Evaluate industry research and information to identify where new methods can be used.</p> <p>4.3 Develop conclusions as to how new methods can be improved.</p> <p>4.4 Make recommendations as to how new methods might be effectively be implemented.</p>

Additional information about the unit
Unit purpose and aim(s)
This unit covers the skills and knowledge required to electro plate in the manufacture of precious metal items.
Unit start date
1 October 2012
Details of the relationship between the unit and relevant National Occupational Standards (if appropriate)
This unit is based on National Occupational Standards for Level 4 Diploma in Jewellery Manufacturing.
Details of the relationship between the unit and other standards or curricula (if appropriate)
N/A
Assessment requirements specified by a sector or regulatory body (if appropriate)
Culture and Creative Skills
Endorsement of the unit by a sector or other appropriate body (if required)
N/A
Location of the unit within the subject/sector classification system
9.2 Crafts, Creative Art and Design
Name of the organisation submitting the unit
City & Guilds
Guided learning hours
65

Regulated qualifications assessment specification

Assessment (evidence) requirements

The learner should submit a technical journal/workbook, describing the following.

Learning Outcome 1

The use of stopping agents and solvents. An explanation of how the relevant mathematical formulae and calculations can be applied. A critical evaluation of the limitations of plating.

Learning Outcome 2

How to select the correct chemicals and equipment for prescribed tasks and processes. The materials used to create articles. The dangers of interactions of materials during production. The various contamination problems that may occur. The action to be taken when faults arise with equipment. The neutralising agents that should be used for cleaning tanks. How neutralising agents can be recognised. How chemical solutions can be maintained at optimal condition. The learner should also explain how unnecessary damage to metal surfaces can be avoided. Compare the characteristics of mandrel/matrix solutions and critically compare the precautions that should be taken to avoid contamination.

Learning Outcome 3

Product evidence showing that the learner can produce. A selection of items using a range of electro-depositing techniques including:

- ◆ multi-plating
- ◆ parcel gilding
- ◆ matrix electroforming

Electroplate on a range of materials including:

- ◆ metal
- ◆ plastic

The learner should implement work in a manner that does not cause risk or injury to themselves and others and that prevents damage to components and equipment.

Learning Outcome 4

Logbook/workbook showing that the learner has assessed the relative success of the methods used and identify areas for improvement. Evaluate industry research and information to identify where new methods can be used. Develop conclusions as to how new methods can be improved and make recommendations as to how new methods might be effectively implemented.

Guidance on assessment**Learning Outcome 1**

Checklist for all the evidence requirements above.

Learning Outcome 2

Checklist for all the evidence requirements above.

Learning Outcome 3

Assessment checklist for product evidence and observation checklist of learner activity.

Learning Outcome 4

Assessment checklist for above.