



QCF Unit and Assessment Specification

Unit title	Produce Enamelled Surfaces for Precious Metal Objects
Ofqual Unit code	F/506/1643
SQA Unit code	H6Y1 79

History of changes

Publication date: May 2014

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Version number	Date	Description	Authorised by

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QCF Unit specification

Title	Produce Enamelled Surfaces for Precious Metal objects	
Level	3	
Credit value	26	
Learning Outcomes	Assessment Criteria	
The learner will:	The learner can:	
1 Understand the theoretical concepts which apply to enamelling.	1.1	Define the terminology used when applying enamelling techniques.
	1.2	Describe how to identify different enamelling techniques.
	1.3	Classify the correct firing temperatures for different types of metal and enamel.
	1.4	Define the qualities of different types of silver including: <ul style="list-style-type: none"> ◆ standards ◆ britannia ◆ fine silver
	1.5	Describe the use of UV cured resin products.
	1.6	Describe the differences between a range of different types of enamel including: <ul style="list-style-type: none"> ◆ opaque ◆ transparent ◆ opalescent ◆ wet process
2 Understand how to apply enamelling techniques safely.	2.1	Describe the relevant health and safety practices that should be applied when producing enamelled items.
	2.2	Describe how enamelling materials should be stored and safely handled in the workshop.
	2.3	Describe how chemicals used in enamelling processes should be handled and disposed of safely.
	2.4	Explain how to safely use the correct tools and equipment for prescribed tasks and processes.

Learning Outcomes	Assessment Criteria
The learner will:	The learner can:
<p>3 Understand how to produce complex enamelled items.</p>	<p>3.1 Describe how transparent enamel can be used on a range of textured surfaces.</p> <p>3.2 Explain how designs can be copied.</p> <p>3.3 Explain how to produce multiples of a given design using a range of techniques including:</p> <ul style="list-style-type: none"> ◆ casting ◆ photo-etching ◆ die stamping <p>3.4 Explain how to increase and reduce the size of designs.</p> <p>3.5 Explain how faults in specifications might be identified.</p> <p>3.6 Describe the appropriate actions to follow when overcoming faults in specifications.</p> <p>3.7 Describe the basic techniques used for cutting and carving.</p> <p>3.8 Describe the basic techniques used for etching.</p> <p>3.9 Describe the correct fabrication requirements for enamel including reference to:</p> <ul style="list-style-type: none"> ◆ thickness of metal ◆ high melting solder ◆ fittings and findings <p>3.10 Explain how metal surfaces should be prepared including:</p> <ul style="list-style-type: none"> ◆ standard silver ◆ britannia silver ◆ fine silver <p>3.11 Explain how to wash and grind enamel appropriate to the form and layout required.</p> <p>3.12 Describe the commonly used processes used to finish enamel and metal.</p> <p>3.13 Describe the sequence of application to remove enamel.</p>

Learning Outcomes	Assessment Criteria
The learner will:	The learner can:
<p>4 Be able to produce complex enamelled items.</p>	<p>4.1 Produce complex enamelled work on a range of metals using appropriate tools.</p> <p>4.2 Produce complex enamelled work to a given design on a range of surfaces.</p> <p>4.3 Produce complex enamelled work using a range of techniques including:</p> <ul style="list-style-type: none"> ◆ cloisonné ◆ champlevé, using basic carving and acid etching <p>4.4 Produce texture prior to enamelling using engraving tools and acid etching.</p> <p>4.5 Assess that the work is completed to an acceptable standard including:</p> <ul style="list-style-type: none"> ◆ dimensionally accurate ◆ proportionally accurate ◆ meets specification

Additional information about the Unit
Unit purpose and aim(s)
This Unit covers the skills and knowledge required to produce a decorative surface, using appropriate enamelling techniques. In producing enamelled products, you will be required to work to instructions and to use a range of hand tools and a variety of techniques, appropriate to the style of enamelling. During, and on completion of, the enamelling, you will be expected to visually check the quality of your work. You will need to report and seek guidance on any defects, the appropriate action to rectify them, and to ensure that the finished work meets the given specification which may include timescales.
Unit expiry date
28 February 2019
Details of the relationship between the Unit and relevant national occupational standards or other professional standards or curricula (if appropriate)
Creative and Cultural Skills standards Unit relates to National Occupational Standards J3.18
Assessment requirements specified by a sector or regulatory body (if appropriate)
N/A
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
4.2 Manufacturing Technologies
Name of the organisation submitting the Unit
SQA
Availability for use
Shared
Availability for delivery
May 2014
Guided Learning Hours
195

QCF Assessment specification

Assessment (evidence) Requirements

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

Written and /or oral evidence is required which demonstrates that the learner has achieved Outcomes 1, 2 and 3 to the standard specified in the Outcome and Performance Criteria. The evidence for the Outcomes should be obtained under controlled, supervised conditions.

Product evidence is required which demonstrates that the learner has achieved Outcome 4 to the standard specified in the Outcome and Performance Criteria.

Each learner will enamel work pieces on two of the following metals:

- ◆ silver
- ◆ gold
- ◆ copper

Carry out enamelling to a design on all of the following surfaces:

- ◆ flat
- ◆ concave
- ◆ convex
- ◆ cast surfaces

Carry our enamelling using both of the following techniques:

- ◆ cloisonné
- ◆ champlevé, using basic carving, and acid etching

Use basic engraving tools and acid etching for texture prior to enamelling.

Understanding the qualities of standard, Britannia, and fine silver, and the preparation of these metals.

Understanding the procedure of fabricating pieces for enamel.

Check that the completed enamelling is dimensionally accurate, proportionally correct and meets the specification and complete work specifications to the given specification.

Guidance on Instruments of Assessment

Outcomes 1, 2 and 3 — written and/or oral evidence

Formative assessment activities can be used to help learners consolidate their learning and knowledge gained, but care must be taken when designing these types of activities to ensure they relate to the Performance Criteria

Outcome 4 — practical performance

The assessor should observe the learner producing complex enamelled items.