

J4.18 Plate and electroform jewellery or silverware SQA Unit Code H9TX 04

Unit Summary

This unit covers the skills and knowledge required to produce finished articles, using appropriate plating and electroforming techniques. While plating and electroforming, you will be required to work to instructions and to use a range of equipment and techniques, appropriate to the type of material being used and the type of articles being worked. You will be expected to take personal responsibility for your own actions and for the quality and accuracy of the work that you carry out. During, and on completion of, the plating and electroforming processes, you will be expected to check the quality of your work. You will need to be able to recognise any surface defects, to determine the appropriate action to rectify them, and to ensure that the finished work meets the required standard.

Performance Indicators

You will be able to:

- a) Produce a selection of items covering a range of **techniques**:
- b) **Electroform** a range of materials:
- c) **Electroplate** a range of materials:
- d) Carry out all activities safely and correctly, and in a manner that does not cause risk of injury to yourself or others, or damage to components and equipment

Knowledge and Understanding

You will know and understand:

- 1) Relevant mathematical formulae and calculations
- 2) The use of stopping agents and solvents
- 3) How to avoid any unnecessary damage to metal surfaces
- 4) How to select the correct chemicals and equipment for prescribed tasks and processes
- 5) The materials used, and how to make electroforming matrix models or aids to creating articles
- 6) The limitations to plating and electroforming
- 7) The characteristics and safety requirements of mandrel/matrix and solutions; the dangers of interactions of materials during production; contamination problems, and precautions to take against contamination
- 8) The action to take with faults in equipment
- 9) Which neutralising agents can be used for cleaning tanks, and how to recognise them
- 10) How to maintain the chemical solutions in optimal condition for use

Range

You are required to:

- A. Produce items using all of the following **techniques**
 - (i) Multi-plating
 - (ii) Parcel gilding
 - (iii) Matrix electroforming
- B. **Electroform** all of the following materials:

- (i) Wood
- (ii) Metal
- (iii) Wax
- (iv) Plastic

C. **Electroplate** both of the following materials:

- (i) Metal
- (ii) Plastic