

J2.4 Identify the basic properties of common precious metals and alloys used in jewellery or silversmithing SQA Unit Code H9W0 04

Unit Summary

This unit covers the skills and knowledge required to identify and understand the properties and characteristics of the types of manufacturing materials commonly used in jewellery manufacturing and silversmithing. You will be expected to experiment with specialist techniques appropriate to the materials that you are working with and record your findings.

Performance Indicators

You will be able to:

- a) Identify the commonly used precious metals and alloys in jewellery and Silversmithing
- b) **Identify the basic properties** of commonly used metal alloys
- c) Select and prepare the materials for metalwork and jewellery following **instructions**
- d) Experiment with specialist techniques for metalworking and jewellery and record findings
- e) Use and store materials in a safe and effective manner

Knowledge and Understanding

You will know and understand:

- 1) Terminology used by the industry
- 2) The Hallmarking Act and its implications
- 3) How to identify common ferrous and non-ferrous alloys
- 4) The properties of jewellery and silversmith manufacturing materials, including
 - Strength
 - toughness
 - ductility
 - malleability
 - weight
 - surface treatment
 - construction
 - section thickness
- 5) The characteristics of jewellery and silversmith manufacturing materials, including
 - aesthetic qualities
 - ease of working
 - strengths and weaknesses
 - quality of finishes

Range

You are required to:

A. **Identify the basic properties** of all of the following:

- (i) Gold
- (ii) Silver
- (iii) Platinum
- (iv) Palladium

B. Follow two of the following types of **instructions**:

- (i) Verbal
- (ii) Written
- (iii) Drawings