

J2.8 Carry out permanent joining of jewellery or silverware components SQA Unit Code H9W4 04

Unit Summary

This unit covers the skills and knowledge required to produce jewellery or silverware using permanent joining techniques. You will be required to work to instructions, use a range of equipment, and a variety of permanent joining techniques, appropriate to the type of material being used and the style being produced. On completion of the process you will be expected to check the quality and standard of your work.

Performance Indicators

You will be able to:

- a) Join components using **soldering equipment** appropriate too your work
- b) Produce components using **permanent soldered joins**
- c) Visually examine the work piece to ascertain if the work meets the standard required

Knowledge and Understanding

You will know and understand:

- 1) The specific safety precautions to be taken during the joining of components
- 2) A range of simple joining techniques
- 3) How to identify the materials to be joined and using the most appropriate solder
- 4) The importance of heat, flux and solder
- 5) The importance of dry assembly of components before carrying out the joining operation
- 6) How to recognize the point where the melting of solder occurs
- 7) How to check the finished work for faults

Range

You are required to:

- A. Identify all of the following **soldering equipment** and join jewellery or silverware components using one of the following basic hand held gas torches:
 - (i) Micro welder
 - (ii) Oxygen and gas/propane torch
 - (iii) Natural Gas and air (compressed or mouth blown torch)
 - (iv) Propane torch
 - (v) Propane or natural gas and compressed air torch
 - (vi) Laser welder
 - (vii) Oxygen and acetylene torch

- B. Produce a simple component/s with each of the following **permanent soldered joins**
 - (i) Butt soldered join
 - (ii) a piece with multiple soldered joins
 - (iii) Long seamed soldered join