

Specification of Competency Standards
for the Jewellery Industry
Unit of Competency

Functional Area - Sales □

Title	Identify basic jewellery manufacturing materials
Code	108826L2
Range	This unit of competency is applicable to practitioners whose job duties include the sales, marketing, operation, design, production, product development/technological research, quality management and procurement of jewellery. Practitioners should know well about the types of commonly used jewellery manufacturing materials and their characteristics. They should also be capable of applying these materials in relevant job duties under supervision.
Level	2
Credit	6
Competency	Performance Requirements 1. Know about the characteristics of jewellery manufacturing materials • Know about the characteristics of common metal and non-metal materials ○ General characteristics of precious/non-precious metal materials ▪ Specific gravity (relative density) ▪ Electrical conductivity ▪ Thermal conductivity ▪ Heat resistance ▪ Insulation ▪ Hardness ▪ Density ▪ Tensile strength ▪ Ductility (forgeability) ▪ Malleability ▪ Fusibility ▪ Brittleness ▪ Elasticity ○ General characteristics of non-metal materials ▪ Weight ▪ Degree of softness/hardness ▪ Tenacity ▪ Electrical conductivity ▪ Combustibility • Understand the testing methods of precious metal content ○ Decomposition with a solution ○ Touchstone method ○ X-ray fluorescence spectrometry ○ Fire assay ○ Inductively coupled plasma spectrometry 2. Know about jewellery manufacturing materials (metal and non-metal materials) • Know about the commonly used metal materials in different kinds of jewellery and their areas of application, such as: ○ Coloured metals ▪ Precious metals, including: ▪ Gold, platinum and silver ▪ Basic metals, including: ▪ Copper, nickel, aluminium, lead, tin and zinc ▪ Refractory metals, including:

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	▪ Titanium, platinum, palladium and rhodium ○ Black metals ▪ Iron, iron alloy and steel • Know about the commonly used non-metal materials in different kinds of jewellery and their areas of application, such as: ○ Natural organic materials, including: timber, bones, feathers, hair and stings ○ Plastic and rubber products, including: acrylic, polypropylene, nylon, resin, organic silicone resin, neoprene rubber, polyurethane and thermoplastic polymers ○ Other media, including: cement, slate, gypsum, pottery, porcelain, glass, paper, textiles, electronic components, etc. 3. Professionalism • Capable of manufacturing jewellery using jewellery manufacturing materials and storing jewellery manufacturing materials safely and effectively with a professional attitude and in accordance with the guidelines of the organization
Assessment Criteria	The integrated outcome requirement of this unit of competency is: Able to know about the commonly used materials in jewellery manufacturing and apply these materials in job duties related to the sales, marketing, operation, design, production, products, quality management and procurement of jewellery under supervision.
Remark	