

Specification of Competency Standards
for the Jewellery Industry
Unit of Competency

Functional Area - Testing and Certification

Title	Know about the basic testing of diamonds
Code	109007L3
Range	This unit of competency is applicable to practitioners who work in jewellery gemmological laboratories and those with related duties in the jewellery industry. This unit of competency is applied in the routine work environments relating to diamond identification. Practitioners should have a basic understanding of the identification of diamonds and be capable of operating simple diamond identification equipment properly under instruction.
Level	3
Credit	6
Competency	Performance Requirements 1. Know about diamond materials • Know about diamond materials, including: ○ Formation and mining of diamonds ○ The nature of diamonds ▪ Chemical and crystalline properties ▪ Crystal sample and observation ○ Properties of diamonds ▪ Non-optical properties ▪ The nature of light ▪ Optical properties ○ Colours of diamonds ▪ The nature and spectrum of light ▪ Absorption spectrum and spectroscope ▪ Classification and colours of diamonds ▪ Glowing ○ Synthetic diamonds (gem quality) ▪ Artificial gemstone materials ▪ Synthetic gemstone materials ▪ Synthetic diamonds ○ Diamond treatments ▪ Colour treatments ▪ Clarity treatments 2. Master the operation of simple diamond identification equipment • Determine the existing calibration of the diamond identification equipment • Master the uses of diamond identification equipment, including: ○ Ultraviolet-visible spectrometer ○ Diamond verification instrument (diamond spectrometer) ○ Diamond view instrument (diamond fluorescence structure instrument) 3. Professionalism • Able to follow the practitioners' companies requirements, code of practice and safety guidelines and to use simple diamond identification equipment effectively in a professional attitude. • Learn to use various diamond identification equipment constantly.
Assessment Criteria	The integrated outcome requirements of this unit of competency are:

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	• Able to understand diamond materials clearly; and • Properly operate simple diamond identification equipment under instruction.
Remark	This unit of competency is written with reference to the following materials. Readers can study the relevant information according to their needs:- • The English-Chinese and Chinese-English Dictionary of Gems and Jewelry published by China University of Geosciences Press Co. Ltd.; and • Courses of The Gemmological Association of Great Britain (Gem-A), courses of The Gemological Institute of America (GIA), courses of The Swiss Gemmological Institute, courses of the International Gemological Institute, etc.