

**Specification of Competency Standards**  
**for the Jewellery Industry**  
**Unit of Competency**

Functional Area - Testing and Certification

Title	Identify and analyze specific gemstones
Code	109015L5
Range	This unit of competency is applicable to gemmologists working in gemmological laboratories in the jewellery industry. Practitioners should be capable of conducting analysis, assessment and integration of data. They should be able to analyze the characteristics of specific gemstones and understand their identification methods and use precision testing equipment to identify different kinds of gemstones effectively, independently and properly.
Level	5
Credit	9
Competency	<p>Performance Requirements</p> <p>1. Analyze the characteristics of specific gemstones</p> <ul style="list-style-type: none"> <li>• Inorganic gemstones</li> <li>• Organic gemstones</li> <li>• Artificial gemstones</li> <li>• Imitation gem materials and composite stones, such as: <ul style="list-style-type: none"> <li>○ Imitation gem materials (e.g. glass and plastic)</li> <li>○ Composite stones <ul style="list-style-type: none"> <li>▪ Reconstructed stones (e.g. pressed amber)</li> <li>▪ Doublets and triplets (e.g. opal)</li> </ul> </li> </ul> </li> <li>• Treated gemstone materials <ul style="list-style-type: none"> <li>○ Colouring, foiling and coating</li> <li>○ Dyeing</li> <li>○ Impregnation and filling</li> <li>○ Laser treatment</li> <li>○ Heat treatment and diffusion</li> <li>○ Radiation and heat treatment</li> <li>○ High pressure and high temperature treatment</li> </ul> </li> </ul> <p>2. Identify specific gemstones</p> <ul style="list-style-type: none"> <li>• Master the methods for analyzing the characteristics of specific gemstones and the identification methods</li> <li>• Master the functions of basic gemstone testing equipment</li> <li>• Use precision gemstone testing equipment properly to conduct gemstone tests</li> </ul> <p>3. Professionalism</p> <ul style="list-style-type: none"> <li>• Following the requirements of the organization, code of practice and safety guidelines, use testing equipment to conduct tests on specific gemstones and effectively in a professional attitude</li> <li>• Learn to use the latest gemstone identification/testing equipment constantly</li> </ul>
Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <ul style="list-style-type: none"> <li>• Able to analyze the characteristics of specific gemstones and understand their basic identification methods; and</li> <li>• Use identification equipment and tools properly to obtain data and information.</li> </ul>
Remark	This unit of competency is written with reference to the following materials. Readers can study the relevant information according to their needs:-

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	<ul style="list-style-type: none"><li>• Guobiao standards GB/T16552-2017 (Gems - Nomenclature);</li><li>• The English-Chinese and Chinese-English Dictionary of Gems and Jewelry published by China University of Geosciences Press Co. Ltd.; and</li><li>• 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.</li></ul>
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