

Specification of Competency Standards for the Jewellery Industry
Unit of Competency

1. Title	Identify and analyse various kinds of gemstones
2. Code	JLZZSA502A
3. Range	This unit of competency is applicable in workplaces such as jewellery outlets, gems identification laboratories and jewellery worksites. Practitioners should have extensive knowledge on various kinds of gemstones and specialized in identification of gemstones. They should also be capable to use complicated identification equipments to obtain detailed and accurate data and information to effectively perform the duty of identification of gemstones as well as grading to the gemstones after making careful analysis.
4. Level	5
5. Credit	18
6. Competency	<p align="center"><u>Performance Requirements</u></p> <p>6.1 Analyse the categories and characteristics of gemstones</p> <ul style="list-style-type: none"> ◆ Analyse the categories and characteristics of gemstones, including: <ul style="list-style-type: none"> • The necessary compositions of gemstones • The source of gemstones and their formation • The categories of gemstones, such as: natural gemstones, synthetic gemstones, treated gemstones, doublets and imitation products, etc. • The concept of genuine and fake gemstones ◆ Analyse the varieties and characteristics of commonly used gemstones in jewellery manufacturing <ul style="list-style-type: none"> • Master the characteristics of diamond, including:

	<ul style="list-style-type: none"> ‣ The composition of diamond ‣ The formation of diamond and its locality ‣ Crystal system, physical and optical nature ‣ Difference between natural and synthetic diamonds, and its substitutes ‣ The common treatment for diamond and its features • Master the characteristics of corundum, including: <ul style="list-style-type: none"> ‣ The composition of corundum and its physical and optical nature ‣ Locality and features of ruby and sapphire ‣ The treatment and synthetic methods of ruby and sapphire, and their identification • Master the characteristics of common gemstones/semi-precious stones, including: <ul style="list-style-type: none"> ‣ The chemical/physical characteristics, locality and features of beryl (emerald, aquamarine) ‣ The treatment and synthetic methods of beryl • Master the features and types of semi-precious stones <ul style="list-style-type: none"> ‣ The features and types of topaz ‣ The features and types of garnet • Master the characteristics of quartz (crystal, amethyst, citrine and agate, etc.), including:
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	<ul style="list-style-type: none"> ‣ The features and types of quartz (crystal, amethyst and citrine, etc.) ‣ The features and types of chalcedony quartz ‣ The synthetic method of crystal • Master the characteristics of jades, including: <ul style="list-style-type: none"> ‣ The definition and concept of jades ‣ Jadeites and nephrites ‣ Minerals similar to jades ‣ The treatment for jades • Master the characteristics of pearls, including: <ul style="list-style-type: none"> ‣ The formation of pearls ‣ The features, colour and shape of pearls ‣ The main categories of sea water pearls and fresh water pearls ‣ Natural pearls and cultured pearls ‣ The method of making imitation pearls and their features <p>6.2 Identify gemstones</p> <ul style="list-style-type: none"> ◆ Capable to effectively perform the duty of identification of gemstones and operate gems identification equipments ◆ Apply the identification method for diamond to differentiate between diamond and their imitation products ◆ Apply the identification method for ruby and sapphire to differentiate ruby, sapphire and their imitation products ◆ Apply the identification method for gemstones/semi-precious stones to differentiate beryl, tourmaline, topaz, garnet and their imitation products
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	<ul style="list-style-type: none"> ◆ Apply the identification method to differentiate glass and crystals ◆ Apply the identification method to differentiate jadeite and nephrite as well as their imitation products ◆ Apply the identification method to identify genuine pearl/carol and fake pearl/carol <p>6.3 Professionalism of gems identification</p> <ul style="list-style-type: none"> ◆ Capable to identify and give grading to standard common gemstones ◆ Keep abreast of the new knowledge in gemmology ◆ Keep abreast of the use of sophisticated gems identification equipment
7. Assessment Criteria	<p>The integrated outcome requirements of this unit of competency are:</p> <p>(i) Capable to have thorough understanding on various kinds of gemstones, such as: natural gemstones, synthetic gemstones, treated gemstones, doublets and imitation products, etc.; and</p> <p>(ii) Capable to operate complicated identification equipments to obtain detailed and accurate data and information to effectively perform the duty of identification of gemstones, and identify and give grading to gemstones after making careful analysis.</p>
8. Remarks	<p>The credit value of this unit of competency is set on the presumption that the person already has internationally recognized qualification in the gems identification.</p>