



管狀花 — 花冠大部分融合成長管形或圓筒形，先端稍微張開，例如毛麝香和了哥王等。
Tubular flowers – large part of corolla fused to form a tube or cylinder, the top part slightly expanded.
Examples: Adenosma (*Adenosma glutinosum*) and Indian Wikstroemia (*Wikstroemia indica*).

了哥王 Indian Wikstroemia

高腳碟形花 — 花冠呈細長的筒狀，先端開口向外展開成輪形或漏斗形，例如馬纓丹、山橙、蘿芙木等。



山橙 Mountain Orange

Salverform flowers – corolla forms a slender tube, with a spreading flattened tube mouth. Examples: Lantana (*Lantana camara*), Mountain Orange (*Melodinus suaveolens*) and Devil-pepper (*Rauvolfia verticillata*).



舌狀花 — 花冠基部呈短筒狀，上部只有一枚花瓣向一方展開形成扁平舌形。少有單生，通常組成花序，如頭狀花序，例如薔蟻菊和黃鸝菜等。

Ligulate flowers – the base of corolla short tubular shape, with a single petal on the top part, spreading in one direction, forming a strap shape. Seldom single flowered. Usually in group as an inflorescence such as capitulum. Examples: Wedelia (*Wedelia chinensis*) and Hawk's Beard (*Youngia japonica*).

黃鸝菜 Hawk's Beard

唇形花 — 花冠先端分開成上下兩部分如唇狀，下唇通常較大，可讓昆蟲著陸和攀附，例如益母草、疏毛白絨草、紫花香薷、涼粉草等。

Labiata flowers – top part of corolla divided into two parts like lips. Lower lip is usually larger to facilitate landing of insects. Examples: Mother-wort (*Leonurus japonicus*), Hairy Leucas (*Leucas mollissima* var. *chinensis*), Aromatic Madder (*Elsholtzia argyi*) and Chinese Mesona (*Mesona chinensis*).



疏毛白絨草 Hairy Leucas



輪形花 — 花冠基部連合，由中心向外平面以輻射狀展開，例如水茄。

Rotate flowers – with a sympetalous corolla base, spreading flat radiating from centre, wheel-shaped. Example: Tetrongan (*Solanum torvum*).

水茄 Tetrongan



藍花黃芩 Blueflower Skullcap
(*Scutellaria formosana*)



大家會如何繪畫花朵呢？相信大部份人都只會簡單地畫一個圓圈，然後在外圍加幾片花瓣吧！當然真實的花朵遠較此複雜，其實花有四環主要結構，由外至內分別是萼片、花瓣、雄蕊和雌蕊。這些結構的形態特徵在植物分類時十分重要。

How would you sketch a flower? Most likely, we would just simply draw a circle surrounded by some petals. Of course, a real flower is much more complex than this. In fact, flowers have four whorls of main structures. From outermost inwards are sepal, petal, androecium (stamen) and gynoecium (pistil). The characteristics of these structures are very important in plant classification.

雄蕊群：雄性生殖部分。佈滿花粉囊的花藥由長條狀的花絲支撐著，負責生產帶有生殖細胞的花粉，相當於動物的精子。

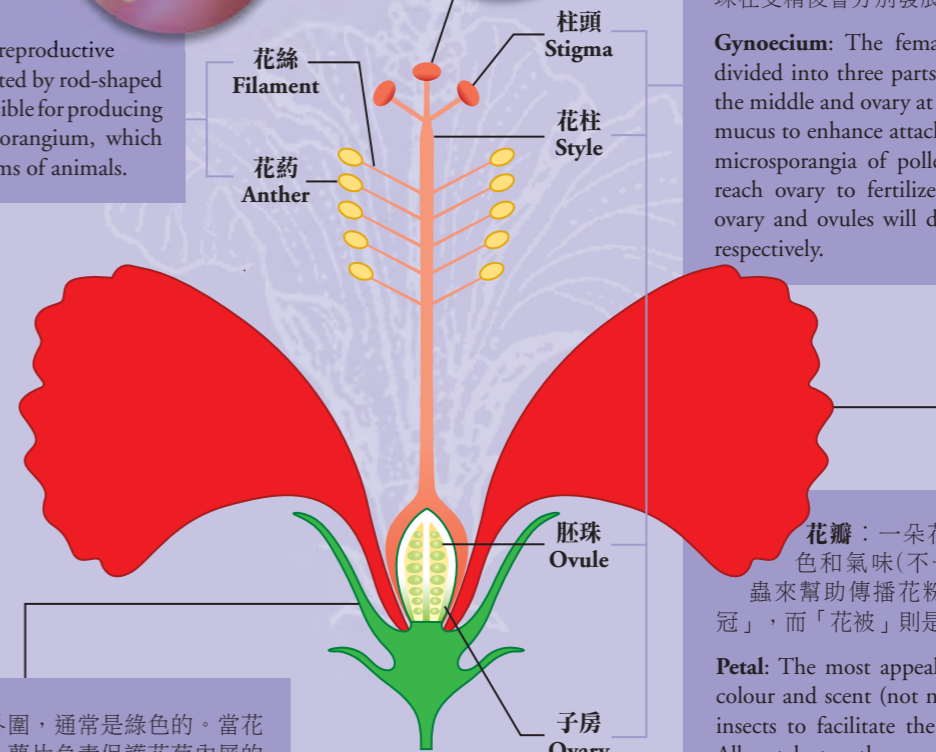
Androecium: Male reproductive part. Anther is supported by rod-shaped filament and is responsible for producing pollens with microsporangium, which are equivalent to sperms of animals.



雌蕊群：雌性生殖部分。分為三部分，最上方為柱頭，中間為花柱，底部為子房。柱頭分泌黏液幫助花粉依附，雄性生殖細胞通過花柱，到達子房後，與胚珠進行受精作用。子房和胚珠在受精後會分別發展為果實及種子。

Gynoecium: The female reproductive part. It is divided into three parts: stigma at the top, style in the middle and ovary at the bottom. Stigma secretes mucus to enhance attachment of pollen grains. The microsporangia of pollens pass through style and reach ovary to fertilize ovules. After fertilization, ovary and ovules will develop into fruit and seeds respectively.

完全花
Perfect Flower



花瓣：一朵花最奪目的地方，它的顏色和氣味(不一定是香味)，會吸引昆蟲來幫助傳播花粉。所有花瓣合稱為「花冠」，而「花被」則是花瓣以及萼片的合稱。

Petal: The most appealing part of a flower. Their colour and scent (not necessarily aromatic) attract insects to facilitate the dispersal of pollen grains. All petals together are known as "corolla" while "perianth" refers to petals and sepals together.

萼片：位於花的最外圍，通常是綠色的。當花朵仍是含苞待放時，萼片負責保護花苞內層的其他組織，防止水分散失。一朵花的所有萼片合稱為「花萼」。

Sepal: Sepals are located at the outermost part of a flower. They are usually green in colour. When a flower is still in flower bud stage, sepals protect the inner tissues and prevent water loss. All sepals together are known as calyx.



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完全花和不完全花 Perfect flower & imperfect flower

花可以分為兩大類：「完全花」及「不完全花」。「完全花」是指一朵花同時具有上述四種結構，又因它同時具雌性及雄性生殖器官（雌雄同體），故又稱為「兩性花」。

Flowers can be categorized as perfect flowers and imperfect flowers. When a flower has all the four parts described above, it is known a perfect flower. It is also known as bisexual flower (hermaphrodite) because it possesses both male and female reproductive organs.

當一朵花缺少上述四種基本結構的其中一種或以上，便稱為「不完全花」。「無被花」是指缺少萼片和花瓣的花，「單被花」是指只有萼片或只有花瓣的花，「單性花」是指缺少雄蕊或雌蕊的花，而「中性花」是指同時缺少雄蕊和雌蕊又或是兩者都發育不良的花。雖然「中性花」缺少生殖器官，但可間接幫助其他花朵繁衍下一代。例如三白草是「無被花」，梅葉冬青都是「單性花」。



三白草 Lizard's Tail

無被花
Achlamydeous
Flower

When a flower lacks one or more of the above mentioned parts, it is called "imperfect flower". The first example is "achlamydeous flower", which means that the flower does not possess any sepal or petal. Another example is "monochlamydeous flower", which means either sepals or petals are missing. The third example is "unisexual flower", which means either androecium or gynoecium is missing. Moreover, there are also "neutral flower", which means both androecium and gynoecium are missing or depauperate. Although neutral flowers lack of reproductive organs, they can facilitate the reproduction of other flowers indirectly. Lizard's Tail (*Saururus chinensis*) is an example of "achlamydeous flower" and Rough-leaved Holly (*Ilex asprella*) is an example of "unisexual flower".



梅葉冬青
Rough-leaved Holly

單性花
Unisexual Flower



牽牛 Annual Morning-glory

合瓣花
Sympetalous
Flower

離瓣花和合瓣花 Choripetalous & Sympetalous flowers

「離瓣花」的花瓣基部是分開而互不相連，即每片花瓣都是獨立分離的。而「合瓣花」的花瓣則是全部或部分連成一起。

The petal base of choripetalous flowers is not conjoint, meaning that each petal is separated as an individual. On the other hand, petals of sympetalous flowers are united, at least partially.

雞頭薯 Chinese Eriosema

離瓣花
Choripetalous Flower



花兒的形狀 The Shapes of Flowers

離瓣花 Choripetalous flowers :

十字形花 — 4枚花瓣排成十字對稱，例如菜心和蘿蔔等。

Cruciform flowers – with four petals symmetrically aligning in cross-shape. Examples: Flowering Chinese Cabbage (*Brassica parachinensis*) and Chinese Radish (*Raphanus sativus*).



菜心 Chinese Cabbage



豌豆 Garden Pea

蝶形花 — 共有5片花瓣，其中最大的旗瓣位於上方，兩片翼瓣在兩側，和兩片愈合的龍骨瓣位於下方，呈蝴蝶形狀，例如豌豆、雞頭薯、水黃皮等。

Papilionaceous flowers – butterfly-like flowers made up of five petals, with the largest banner petal on the top, two lateral wing petals and two fused keel petals in the lower part. Examples: Garden Pea (*Pisum sativum*), Chinese Eriosema (*Eriosema chinense*) and Wild Bean (*Pongamia pinnata*).

輪形花 — 具5片花瓣或以上，由中心向外平面展開，呈車輪狀，例如蛇莓、龍茅草等。

Rotate flowers – with five or more petals, spreading out flat from centre, wheel-shaped. Examples: Indian Mock Strawberry (*Duchesnea indica*) and Pilose Cocklebur (*Agrimonia pilosa*).



蛇莓 Indian Mock Strawberry



五爪金龍
Cairo Morning Glory

合瓣花 Sympetalous flowers :

漏斗形花 — 花冠的基部融合呈筒狀，先端漸向外擴張，整朵花呈朝上的喇叭形，例如牽牛、五爪金龍、花朱頂蘭等。

Funnelform flowers – the base of corolla fused together, forming a tubular shape, widening from base to apex gradually; funnel-shaped. Examples: Annual Morning Glory (*Pharbitis nil*), Cairo Morning Glory (*Ipomoea cairica*) and Barbados Lily (*Hippeastrum vittatum*).

鐘形花 — 花冠基部融合一半以上，先端開口分離並擴大，形成朝下或斜下的鐘狀。例如朱槿（大紅花）、紅酒杯花、雞矢藤等。

Campanulate flowers – more than half of the corolla base fused together, the top part of corolla separated and expanded, forming a downward bell-shape. Examples: Chinese Hibiscus (*Hibiscus rosa-sinensis*), Orange Luckynut Thevetia (*Thevetia peruviana* 'Aurantiana') and Chinese Feverine (*Paederia scandens*).



朱槿 Chinese Hibiscus



小葉烏飯樹
Don Blue Berry

壇狀花 — 花冠大部分連成中空短筒形並膨大，先端開口收縮成短頸後再微擴張，形成壺狀，例如小葉烏飯樹、羅浮柿、田野菟絲子等。

Urceolate flowers – large part of corolla fused to form a swollen hollow short tube, contracted near the mouth, like a pitcher. Examples: Don Blue Berry (*Vaccinium bracteatum* var. *chinense*), Morris's Persimmon (*Diospyros morrisiana*) and Field Dodder (*Cuscuta campestris*).