This rock garden made from Carboniferous Limestone displays threatened plants from Cheddar Gorge like the Cheddar Pink *Dianthus gratianopolitanus* and White Rockrose *Helianthemum apenninum* from Brean Down. The Spiked Speedwell *Veronica spicata* subsp. *hybrida* and rare Bristol Onion *Allium sphaerocephalon* from the Avon Gorge are displayed, with some unusual whitebeams. *Sorbus bristoliensis* and *S. wilmottiana* occur only in the Avon Gorge and nowhere else in the world.

Cool wet winters and hot dry summers characterize the world’s Mediterranean climatic zones. ‘Convergent evolution’ has produced similar adaptations to this type of climate in different plant groups in disparate parts of the globe. Here plants of the Mediterranean Basin have been planted according to habitat type: Steppe (areas of thin soils with annuals, herbs and bulbs); Garigue (areas with low bushes, annuals and bulbs); Maquis (dense thickets of tall shrubs) and evergreen forests (areas with oaks, laurels and pines). By the small path is an area devoted to Mediterranean agriculture.

Walk through 500 million years of plant evolution. Relatives of key groups of plants have been planted in the order in which they first evolved. To illustrate periods of geological time, pieces of rock have been placed at strategic points, some containing fossils. Look out for liverworts and mosses, the first plants to evolve from simple algae growing in water; spore-producing ferns and horsetails from the Devonian period; tree ferns from the Carboniferous period. The fallen tree represents the huge club mosses which grew to 40m in primeval forests. The Permian saw the first seed plants (gymnosperms) such as cycads and ginkgos evolve and at the start of the Triassic plants with cones containing naked seeds appeared.

Plants have evolved a wide range of flower forms reflecting different modes of pollination. Some plants have unique relationships with an individual species of pollinator. The shape, colour, pattern and fragrance of flowers attract the pollinators which can access the nectar and pollen most effectively.
From the main garden’s back gate, follow the path past the seasonal vegetable display and through the New Zealand collection. *Carpodetus serratus* and *Corokia cotoneaster* have branches that grow in different directions and very small leaves. Known as divarication, the ‘busy effect’ deters grazing animals. Small hebes with scale-like leaves and *Astelia nervosa* with its light-reflecting silver hairs are adaptations for growing in extreme alpine environments of intense light and cold. Now go through the arch, enter the car park and turn left to the glasshouses.

The Western Herb Garden (see map overleaf) has been designed as a circular garden surrounded by a beech hedge. The beds are arranged in twelve use categories containing plants used to treat different parts of the body. It takes its influence from the ancient ‘physic’ garden at Padua in Italy, founded in 1545, and considered the origin of the botanic garden.

The main body of the Chinese medicinal herb garden displays plants in different ‘use categories’. These illustrate how the plants are used to treat different parts of the body. In late spring don’t miss the ornamental collection of Chinese paenoeons and bamboos, which are typical of a traditional Chinese herb garden. On the slope view our new tea plantation of *Camellia sinensis* plants. Tea drinking dates back 5000 years in China and it grows well here.

The Chinese Medicinal Herb Garden was developed through a partnership between the UOB Botanic Garden and the RCHM (Register of Chinese Herbal Medicine).

Our new glasshouse display is home to the flora of the Azores, Canary Isles, Cape Verde Isles, Madeira and Savage Isles. Known as the Macaronesian region, the flora of this region is varied and localised, with many rare endemic species.

In the Warm Temperate Zone you will see cacti from the Americas and many succulent, bulbous and shrubby plants from South Africa. Although from different continents, these plants have evolved similar strategies to deal with a common problem, in this instance long hot dry periods (convergent evolution). From South Africa the collection of Pelargoniums shows a huge range of shape, form and habit together with a collection fine leaved shrubs and perennials known as ‘Fynbos’ in the central bed. Fynbos is the most species rich plant community in the world and contains many familiar plants like proteas, ericas and grass-like restios.

Turn left into the Sub-Tropical Zone. Here plants from sub-tropical forests are displayed. Members of the pineapple family or bromeliads grow together with orchids on the benches. Around the base are specimens of bromeliads, orchids, ferns, begonias and aroids. In the central bed are tree ferns together with a fine collection of tropical cycads. Look out for fly catching *Nepenthes* on the bench and crops such as Tea, *Camellia sinensis*, and Coffee, *Coffea arabica*.

Follow the path into the Tropical Zone, home to tropical aquatics, food and medicine (part of the Useful Plants collection). In the centre of the pool you’ll see *Victoria amazonica*, the Giant Amazon Waterlily, with large flat leaves and *Victoria cruziana* with large pie-dish leaves. These plants grow very fast during the summer months, pushing any competing plants out of the way. Around the edge are different forms of the Sacred Lotus plant, *Nelumbo nucifera*, an important cultural and medicinal plant in the far-east. On the surface grow Water Hyacinth, *Eichhornia crassipes*, and Water Lettuce, *Pistia stratiotes*, while tropical waterlilies bloom in the summer months. Surrounding the pool are tropical food and medicine plants; familiar ones like banana, sugar cane and cocoa, as well as more unusual species like rosyl periwinkle, *Catharanthus roseus*, the source of drugs used in leukaemia.

10-13 These beds are a work in progress but will display plants from other Mediterranean zones: the South Western tip of South Africa (10) with its traditional rondavel, thatched with South African reeds; Western & Southern Australia (11); the Northern & Central coastal strip of Chile (12) and the Western seaboard of California (13). Watch this space!