



## Wynyard Woodland Park

### The Celestial Kitchen

Learn more about the Solar System and the Universe -

Visit our Planetarium and Observatory in the Wynyard Woodland Park.

The Planetarium is used by schools, colleges, the OU, adult education and community groups during week days and some evenings. However, it is possible to book a large enough group of individuals for a show at a time of their choosing.

Please contact the director on 01740 630544.

Public shows are on every 1st and 3rd Friday evenings of the month at 7:30p. and last for just over an hour.

The Observatory is open to members of the public on clear Friday nights from September throughout the winter months until the end of April, manned by members of the local astronomical society.

A Telescope Club operates every last Friday in the month at 7.30pm. New telescope owners and potential telescope owners are welcome

Contact details :-

For details of public shows taking place at Wynyard Planetarium, contact the Planetarium Director on (01740) 630544,

or e-mail  
[director.wynyard-planetarium.net](mailto:director.wynyard-planetarium.net)

Visit the Planetarium website at  
[www.wynyard-planetarium.net](http://www.wynyard-planetarium.net)

The Park has installed the Celestial Kitchen feature for the use of school parties and interested public as part of the Planetarium and Observatory activities.

The Celestial Kitchen is an astronomical sculpture located in Wynyard Park located in the Stoney Field area. To find the sculpture walk up from the Planetarium towards the Observatory, turn left onto the pathway and follow the path until, after about three hundred metres, you see a another path branching to the lower fields and towards the A177. This path leads you onto the Sculpture.

The measuring spoon is a form of sundial. When the sun is shining the piece of string casts a shadow onto the bowl of the spoon and across the line of engraved numbers. These numbers give the approximate time of day. The sundial isn't entirely accurate because of the variation in the orbit of the Earth round the Sun and certain corrections have to be applied depending on the time of year.

The tilted plate, carefully positioned and angled to show that only on two days of the year the shadow of the plate falls exactly on the east-west axis line marked on the concrete base. This happens on the days of the Spring and Autumn equinox (equinox = equal day/equal night), on or about the 21st March and 22nd September, when the sun rises exactly in the East and sets exactly in the West, passing in an arc across the sky. Every other day of the year it rises and sets in different places on the eastern and western horizons producing a shadow of the plate angled away from the east-west axis line.

The pea balanced on the knife casts its shadow down the length of the blade only on the 21st June each year (the summer solstice), celebrating the longest day of the year when the sun rises towards the north-east and sets towards the north-west. The summer solstice was very important to ancient peoples and probably prompted the number of stone circles seen around the country, including



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Stonehenge, as a means of determining the longest day of the year.

The Celestial Kitchen also provides a link with agricultural history in the area. The crucial turning points of the season - the spring and autumn equinox, the summer solstice on mid-summer day - were vital for successful agricultural planning years ago and can be determined by the shadow of the sun on certain points of the sculpture during the year..

The drilled holes in the colander shows the stars and constellations of our northern hemisphere.

The nearby straining ladle shows the stars and constellations of the Southern hemisphere.

In the upright drainer there are two spoons, each with a hole in their handles. At night time you can kneel and look through both holes, aligning them together. You can then see the Pole Star (or Polaris the North Star). Because it sits directly above the North Pole the Pole Star is the only star which does not move from its position in the night sky.

As the Earth rotates through the night on its North Pole/South Pole axis it appears that all the stars except the Pole Star gradually rotate across the night sky from east to west. Because of our high northern latitude the stars immediately surrounding the Pole Star are always visible, never setting. These are the circumpolar stars.

Other stars further towards the south actually do rise above the eastern horizon, they travel across the night sky and then set later below the western horizon

The Pole Star is even there in the same position during the day although we can't see it because of the brightness of the Sun in the sky.

This unique and innovative Celestial Kitchen was designed by the famous local sculptor Colin Wilbourne. It has evoked a wide range of emotions from visitors to the Park. The sculptor's aim was to re-invent some commonplace kitchen implements and bring to earth some of the amazing events occurring in our Universe in a way that is accessible, intriguing and enjoyable.