

THE NIGHT SKY ABOVE YORK FOR MAY & JUNE 2015

This chart is orientated for 11pm 16th May, 10pm 30th May and 9pm 13th June but can be used at any time.

To use the chart, hold it up to the sky. Turn the chart so that the direction you are looking is at the bottom of the chart. If you are looking to the South then have the 'South Horizon' at the bottom edge. As the Earth turns the stars appear to rotate anti-clockwise around the North Celestial Pole, marked by the star Polaris. Stars rise in the east and set in the west just like the Sun. The sky makes a small westward shift every night as we orbit the Sun.



PLANET WATCH

As we head into summer the gas giant planet Saturn returns to the evening sky. Not quite as bright as Jupiter, the famous ringed planet is still easy to spot.

Saturn has more than 60 moons but the largest, Titan, has the record for being the only moon in the solar system to have a dense atmosphere. That being said, it isn't a pleasant one. Comprised mostly of nitrogen, methane and ethane, clouds are easily formed. A methane climate is formed with seasons, wind and rain.

Amazingly, we have managed to explore this far away and exotic moon. The Cassini mission landed a probe, Huygens, on the surface of Titan in 2005. We could see for the first time the surface of Titan underneath the clouds. Huygens transmitted photos and scientific data for 90 minutes. You can see a replica of the Cassini/Huygens spacecraft on the cycle the Solar System route near Naburn Station.

Whilst Titan is an incredibly hostile place for humans, it is still possible that it may harbour life. It is likely if there were life it would be very different to us, possibly with methane replacing the role water plays on Earth.

CONSTELLATION WATCH

Cygnus is the constellation of the swan. It is best seen in the sky from late spring to early winter and makes a cross shape with the blue star Deneb in the swan's tail.

The object Cygnus X1 in the neck of the swan produces strong x-rays from a black hole 14 times the mass of the Sun. It was formed when a giant star reached the end of its life and collapsed under its own gravity.

The Kepler mission (2010-2013) looked at a patch of sky near the right wing of Cygnus and found there are at least as many planets in the galaxy as there are stars.

On the other side of the sky the Zodiac, the constellation of Virgo is prominent. The 12 constellations of the Zodiac form the circle in the sky that the Sun, the Moon and all the planets appear to pass through. In reality it is the orbit of the Earth and its daily rotation that changes these positions. Currently, three planets help trace out the Zodiac.

Virgo can be located by the bright star Spica. You can spot it by following the curve of the Big Dipper to Arcturus, then continuing the arc to Spica.