THE NIGHT SKY ABOVE YORK
FOR NOVEMBER & DECEMBER 2014

This chart is orientated for 8pm 17th November, 7pm 1st December, 6pm 15th December, 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

Moving into winter means we will soon be seeing Jupiter in the evening. The giant planet begins rising at midnight in mid-November and 9pm in mid-December.

Year 1 Astrophysics students will be out to spot the giant planet and its moons over the next few months. They have a project to observe and measure some of the moons of Jupiter. The Galilean moons are four bright moons – Io, Europa, Ganymede and Calisto and these can be seen with a pair of binoculars or with a small telescope. They line up in a row around Jupiter and you can usually see three or four at a time. The moons are quite exciting objects to follow as they can be seen to change position over just a few hours. The fastest and closest, Io, takes just under two days to complete an orbit, whereas the slowest, Calisto, takes 16 days. Jupiter will be visible through our telescopes during our weekly openings from mid-January.

Jupiter and three of the four Galilean Moons.

CONSTELLATION WATCH

Pegasus is the famous winged horse constellation that is best seen from late-Summer to mid-Winter high in the South. In Greek mythology Pegasus had magical powers that allowed him to fly and made him part of many epic adventures. The brightest star in the constellation forms the horse's muzzle and is known as Enif (the nose). Enif is a huge orange supergiant star, 12 times more massive than the Sun and 185 times as large. If placed in our Solar System it would swallow up Venus, and nearly the Earth as well! Also in the constellation is the cluster M15. This is a globular cluster; a ball of more than 100 000 stars all born at about the same time. They are some of the oldest stars in the galaxy - more than 12 billion years old!

The Zodiac constellation next to Pegasus is the twin fish shape of Pisces. The two fish represent Aphrodite and Eros (Greek) or Venus and Cupid (Roman) heroes escaping a monster. They tied themselves together and leapt into the sea, transforming into fish. The 'V' shape in the constellation is the rope tying the two fish tails together.