

New Moon: 8th July (08:14 BST)

First Quarter: 16th July (04:18 BST)

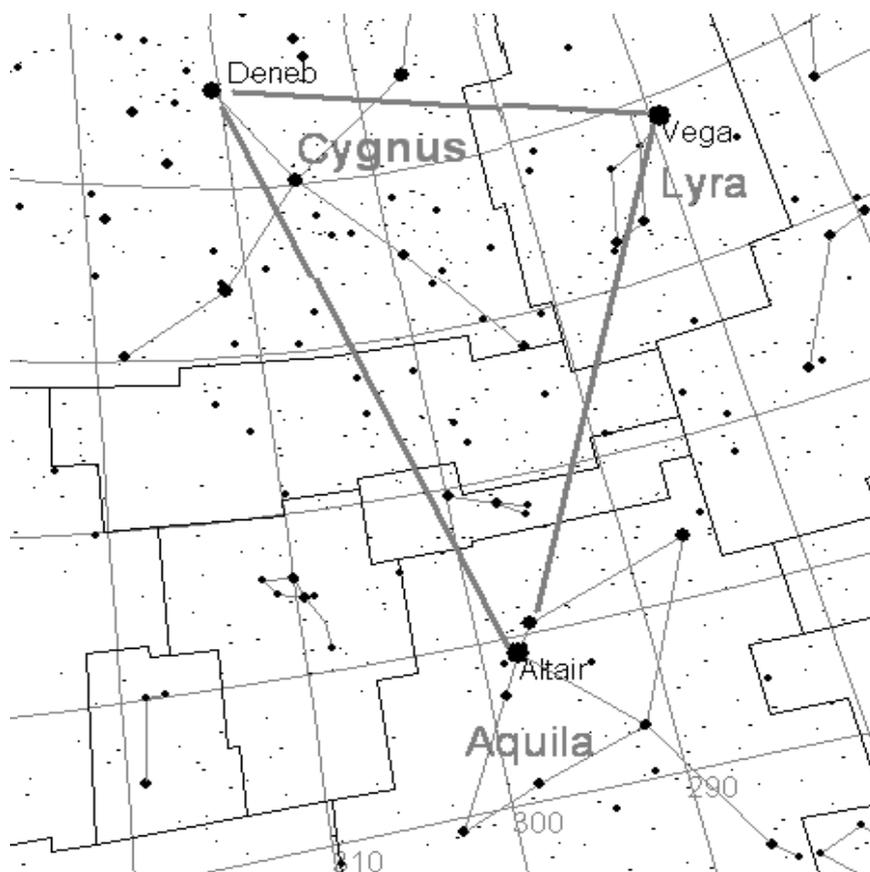
Full Moon: 22nd July (19:15 BST)

Last Quarter: 29th July (18:43 BST)

On the 5th July at 16:00 BST, the Earth will be at aphelion, which is another way of saying that the Earth will be furthest away from the Sun in its orbit. As the German mathematician and astronomer Johannes Kepler discovered in the 17th Century, all bodies within the solar system orbit our Sun in an elliptical fashion. The aphelion and perihelion mark the furthest and nearest points in the orbit. At aphelion, the Earth will be 94,555,000 miles from the Sun, whereas at perihelion on the 4th January 2014, it will be 91,445,000 miles from the Sun – a 3.3% difference in distance.

You would expect the Earth to be colder when it is further away from the Sun at aphelion, and you would be right. The small variation in distance means that less solar energy is captured by the Earth, however, the tilt of the Earth towards the Sun means that the seasonal variation far outweighs the effect of the orbital position.

Looking up at the Sky this month, see if you can spot the Summer Triangle asterism. An asterism is a pattern of stars which have no relation to each other, apart from their apparent position in the night sky from Earth. Sir Patrick Moore first popularised the term 'Summer Triangle' in the 1950's.



The Summer triangle is made up of 3 bright stars: Vega in the constellation Lyra, Deneb in the constellation Cygnus and Altair in the constellation Aquila. The area within the triangle itself is very rich with plenty of clouds of gas and dust.

Don't forget that you can learn more about South Common Observatory, see the pictures I have taken from Chailey, or order my Astronomical Greetings cards from my website: <http://nebul.ae>.

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