

This month hosts the spring equinox. This is the point where the Sun, which has been creeping steadily north since the shortest day back in December, crosses the equator. The event itself will occur on March 20th when, world-wide, day and night will be of equal length. You may have heard it said that the Sun rises in the east and sets in the west. This is true at the spring equinox and at the autumn equinox, which will occur in September. On all other dates the Sun will not be quite so accurate and you can see this for yourself. On March 20th find a point so you can see as close to the western horizon as possible. Using a compass find west and, if the sky is clear, notice how close to west the Sun sets. Repeat this procedure approximately once every two weeks. You should see the position of sunset move further and further north of west until mid- summers day in June.

Now, let's revisit the Moon.

Last month we looked at the Moon up until first quarter and, among other things, learned to locate the lunar seas, Serenity, Tranquility, Plenty and Nectar.

This month we can explore more of the Moon's earth facing surface by watching what comes into view when the Moon passes first quarter and approaches full. To help you with this I will give the Moon's phases for March. The Moon will be at first quarter on March 2nd, will be full on March 9th, will be at last quarter on March 16th and will be new on March 24th.

Using binoculars, the first thing to look for when exploring the left-hand side of the Moon is the Sea of Rains, otherwise known as Mare Imbrium. This is a huge circular larva filled basin which lies to the right of the Sea of Serenity but has twice the diameter of Serenity.

Imagine that the Sea of Rains is a clock face, then at 10 o'clock you will see a bay jutting out of the sea.

This was cut by a second asteroid impact which was much smaller than the major impact that created the Sea of Rains. However, the structures did not fill with larva until after both had been made.

The bay is called the Bay of Rainbows and has considerable significance for me. My fascination with astronomy started in the 1950s when a radio serial "Journey into Space" was broadcast. This was all about the exploits of Jet Morgan and the crew of Rocket Ship Lunar who were the first people to set foot on the Moon. Their landing site was the Bay of Rainbows.

To the north of the Sea of Rains is a circular larva filled crater called Plato. It is set into the light rock of the original lunar crust. This area of crust has been pushed upwards by the original Imbrium impact and is

known as the Lunar Alps. Creativity seems to have been lacking when the Lunar mountain ranges were named as they have been borrowed from Earth's mountains! Products of the original impacts, the mountains between Rains and Tranquility are called the Appenines and those around the Bay of Rainbows are the Juras.

North of the Alps is a long sea which runs towards and above Serenity. This is the Sea of Cold. Follow the Sea of Cold to the west and it joins a large area of lava running north to south. This is the only ocean on the Moon - the Ocean of Storms.

We will leave the Moon for now but before we do, look at it without binoculars. If you are looking at it just before full it is the best time to see the face of the "Man in the Moon" Can you see him?

The Constellation for this month is Auriga the Charioteer.

In Greek mythology the King of Athens, Erichthonius, is said to have invented the four-horse chariot to overcome his poor mobility. Often competing in games his skill as a charioteer is said to have impressed Zeus who raised him to the heavens as the constellation Auriga after his death.

Auriga is to be found north of Taurus, between Gemini in the east and Perseus in the West.

The brightest star in Auriga is Capella which is also known as the 'She Goat'. A triangle of stars near Capella is known as the 'Kids'. Capella is 43 light years from us and shines with a magnitude of +0.08.

Through a telescope it shines with a yellowish tinge.

The kids are interesting as epsilon Auriga, the star at the apex of the 3 kid triangle is an eclipsing variable. However, it takes 27 years to complete one cycle and spends a long time sliding into, and out of, minimum. The object causing the eclipse has not been detected. This is unusual as variables are usually detectable spectroscopically. One idea is that it is a proto-star which is surrounded by gas but has not yet ignited.

Auriga has three open clusters which are in Messier's catalogue. They are compact and easily found in binoculars.

M36 shines at magnitude +6 and is to be found at Right Ascension 5 hours, 36 minutes, 9.31 seconds.

Declination 34°, 7 arc minutes, 59 arc seconds.

M37 shines at magnitude +5.6 and can be found at Right Ascension 5 hours, 52 minutes, 27.2 seconds.

Declination 32°, 32 arc minutes, 57 arc seconds.

M38 shines at magnitude +6.4 and can be found at Right Ascension 5 hours, 23.6 minutes. Declination 35°, 50 arc minutes.

And that is all until April.

I hope you have fun completing this month's challenges which are as follows:

Firstly, checking the direction of sunset on the spring equinox and following the sunsets change of position over the next 3 months

Secondly identifying lunar features such as the Sea of Rains, the Bay of Rainbows, The Lunar Alps, the Sea of Cold, the Ocean of Storms, The Lunar Appenines, The Jura mountains, and the Man in the Moon.

Finally identifying the constellation Auriga and then locating the star Capella, noting its colour, locating the 'Kids', and locating the Open Clusters M36, M37, and M38.