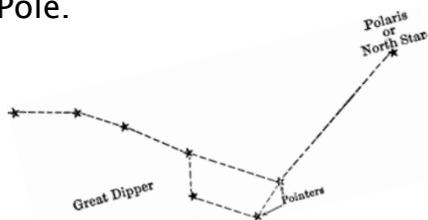


Stargazing Guide: May 2019

What to look out for...

Constellations (star pictures) and interesting stars:

1 The Plough This pattern can be seen all year round from the United Kingdom. We see it particularly high at this time of year. The last two stars point to the North Star, Polaris, which is above the North Pole.



2 Bootes the herdsman (say "Boo-oat-ees"). Look for the bright star Arcturus ("Ark-chur-rus") by following the curve of the plough's handle.

Arcturus used to be very much like our Sun but is slowly dying. It has swollen up and now is about 25 times wider. Our Sun will do the same in about four billion years time.

The star that makes Bootes' head (the other end of the diamond shape) is like our Sun today. If there were aliens on a planet orbiting this star, this is what our Sun would look like to them!



3 Virgo the virgin. It's easy to find the bright star Spica (say "Spy-kah") by continuing the curve that you made from the Plough to Arcturus. The rest of the constellation is much more of a challenge.



A M87 galaxy (needs binoculars), see over.

How to use this chart:

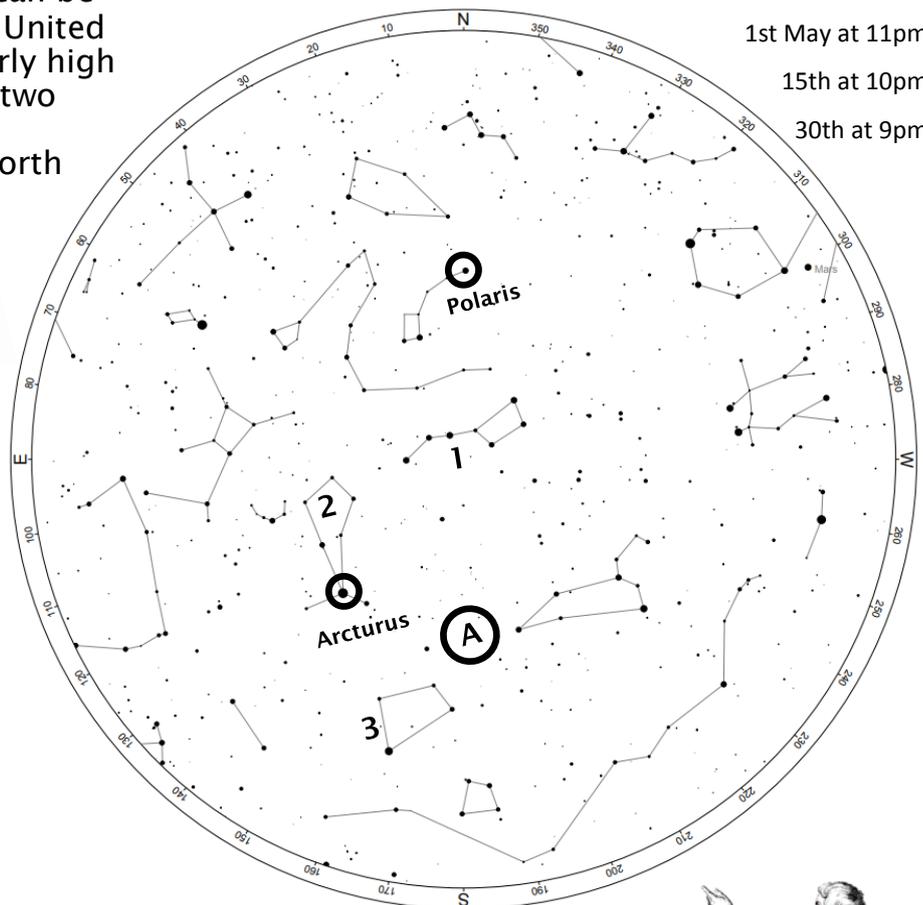
Imagine the chart flat & upside-down above your head. The circle around the outside shows the horizon all around you. Turn the chart to have North (N), South (S), East or West at the front depending on which direction you are looking.

Map shows:

1st May at 11pm

15th at 10pm

30th at 9pm



Stargazing Guide: May 2019

The Moon

There is an illusion that makes the Moon appear larger than it is, especially when seen low in the sky. Try pinching it between your fingers to get a better sense of its true size. The Moon is just over a quarter the width of Earth and a quarter of a million miles away. From the Moon, Earth would look about four times as wide.



Planets

Mars remains visible during the month in the sky towards the south once the sun sets. Mars will set each night of the month shortly before midnight

Jupiter, and **Saturn** both rise after Mars sets in the early hours of the morning in the East to South-East before sunrise rising earlier each day as the month progresses, they will be visible each night until the Sun rises. Both planets will appear in a similar position relative to the stars and each other throughout the month

Mercury, and **Venus** both rise shortly before the Sun at the beginning of the month remaining close to the horizon them tricky to spot. Venus remains in a similar position relative to the Sun throughout the month, whereas Mercury will rapidly be getting closer to the position of the Sun in the sky before trailing behind and becoming visible as the sun is setting towards the end of the month.

Using Binoculars

Look above Virgo (see star map) to try and spot the giant galaxy M87. M87 contains over a trillion stars, although all you'll see for this is a tiny fuzz-patch!

As you can imagine, M87 is an enormous distance away to look so small to us: about 506,150,000,000,000,000 km from Earth, a distance so great that it would take hundreds of billions of years to reach in any of our spacecraft. And remember the Universe has only been here for 13.8 billion years, so that is a long way!

M87 is over 100,000 times further away than the individual stars which we see by eye in the sky. We see M87 by peeking out between these nearby stars, which are all within our own galaxy, the Milky Way. The Milky Way contains only about a tenth as many stars as M87, of which our Sun is one.

Tip of the Month

At this time of year, when the days are (we hope!) getting warmer, it can be surprising how cold it still gets at night. It's great to stargaze while lying down, but you'll lose a lot of heat into the ground, so why not lie back on a camping mat with blankets or sleeping bag under you. This will help keep the cold at bay so you'll be able to enjoy the stars for longer.

Download this star guide and those for other months from:

<http://www.winchestersciencecentre.org/starguides>

Winchester Science Centre & Planetarium, Telegraph Way, Winchester SO21 1HZ.
Tel: 01962 863791, email info@winchestersciencecentre.org. Registered Charity No. 294582