

March night sky

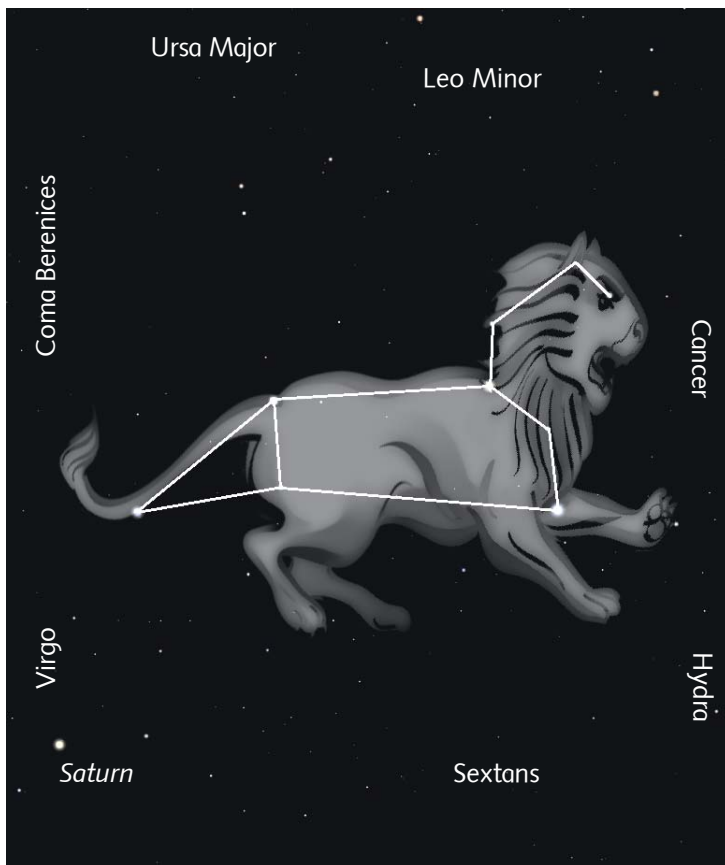


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Spring is in the air, which means a fresh planetarium show for At-Bristol, and a new host of constellations in the night sky. Look out for the bright stars Arcturus in Boötes and Spica in Virgo, shining very brightly in the South-East and South respectively. Then look further West to find Regulus in Leo. There are still some Winter constellations up, although not for long; Orion has mostly set below the horizon by 11pm, but Gemini is visible for a few hours after that.

Constellation of the month: Leo

The Ancient Greeks loved their stories, and they didn't neglect Leo. One of their best tales is about the hero Hercules, who had to complete 12 fiendishly difficult challenges. The first of these was to kill Leo the Lion. Leo had the ability to shape-shift, and would disguise himself as a beautiful woman in distress. Calling for help, men would rush to help this supposed damsel in distress. Leo would then reveal his true form as a lion, kill them, eat their bodies, and give their bones to Hades, god of the Underworld. Leo's fur was very strong, and Hercules' bow and arrows were useless. So Hercules had to be brave and managed to slay the lion with his bare hands. He then took Leo's fur and used it as an arrow-proof cloak. Clever!



Finding Leo

Leo is South in the sky and can be seen all night. It is a fairly large and bright constellation, but it is easier to see all of the stars from a dark site, away from light pollution. Still, even from a city like Bristol you'll certainly be able to spot the bright star Regulus and the rest of Leo's head, looking like a backwards question mark.

Look out for...

The brightest star in Leo is called Regulus. Regulus is only a few hundred million years old, which is like a toddler in star terms. It's spinning very fast – in fact, if it spun much faster it would tear itself apart. A more challenging object to see is the asteroid Vesta, currently by Leo's mouth according to the picture on the left. You can spot Vesta with a pair of binoculars. In reality it is much closer than the stars of Leo, as it is within the main asteroid belt which lies between the orbits of Mars and Jupiter. The stars are many times more distant.

News flash: Astronomers study Saturn's strange aurorae

Most people have heard of the aurora borealis, nicknamed the northern lights. These impressive displays in the sky occur when particles from the Sun interact with the Earth's magnetic field. Other planets also have aurorae. Astronomers observing Saturn have discovered subtle differences between its northern and southern aurorae, which reveal important information about Saturn's magnetic field. The northern aurora is slightly smaller and more intense than the southern one, implying that Saturn's magnetic field is not equally distributed across the planet. It is uneven and stronger in the north.



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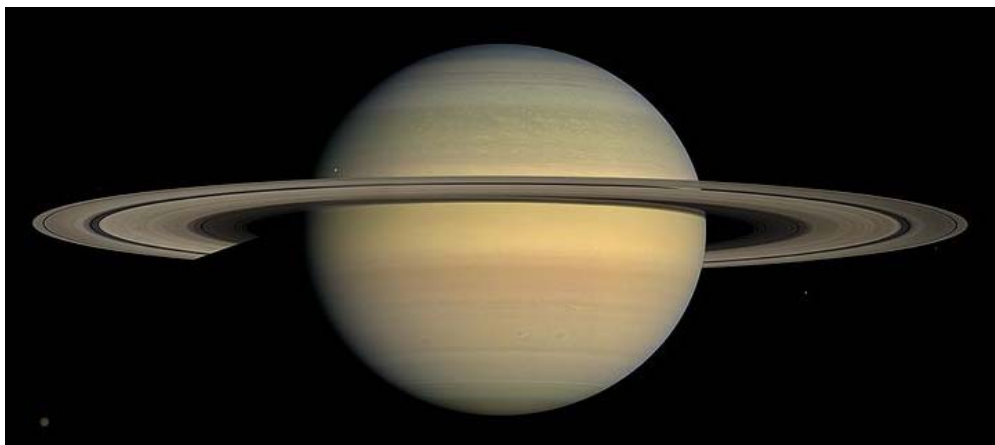
The planets in March

Mercury	is low in the sky toward the end of the month.
Venus	is exceptionally bright, and best seen late in March.
Mars	is getting much dimmer, near the constellations Gemini and Cancer.
Jupiter	is not visible in our skies this month.
Saturn	is near Leo (see the map on the other side) and is unmissable!

Theme of the month: Saturn

Saturn is one of the gas giants of our Solar System. It isn't called a "giant" for nothing; our own planet Earth would fit inside it 800 times! Saturn is most famous for its rings which were probably formed when a moon was destroyed in a collision. The rings were first seen by Galileo in 1610, but his telescope wasn't quite good enough to determine what they were. Later astronomers used better telescopes and many gaps have been discovered, named after the people who first saw them. The largest ring gap is called the Cassini Division and can be seen in a small modern telescope. We now know that the rings are not solid, but are made up of trillions of tiny pieces of ice, rock and dust. Most are very small, with the biggest being around the size of a bus.

Saturn has over 60 moons. Many of these are like worlds in their own right. The largest is called Titan, and is the only moon in our Solar System to have a thick atmosphere. A robotic probe called *Huygens* landed on Titan in January 2005.



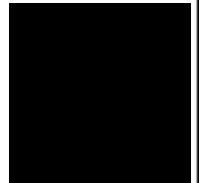
This detailed photograph of Saturn was taken by the *Cassini* space probe. Image credit: NASA/JPL/Space Science Institute.

Moon Calendar

07 March
Last Quarter



15 March
New Moon



23 March
First Quarter



30 March
Full Moon



Would you like to know more?

Details of our planetarium shows and back issues of this handout can be found at:
<http://www.at-bristol.org.uk/theplanetarium>

Stellarium is a planetarium program for your computer, showing a realistic 3D sky just as you would see if looking with your eyes or a telescope. Best of all, it's completely free. Download it at www.stellarium.org

Heavens Above is a website that lets you create customised sky maps and see when satellites like the International Space Station will be visible. Head over to www.heavens-above.com and try it out.

Do you have an astronomy question for the At-Bristol planetarium team?

E-mail lee.pullen@at-bristol.org.uk and our keen astronomers will try to quench your thirst for knowledge!