

# February night sky



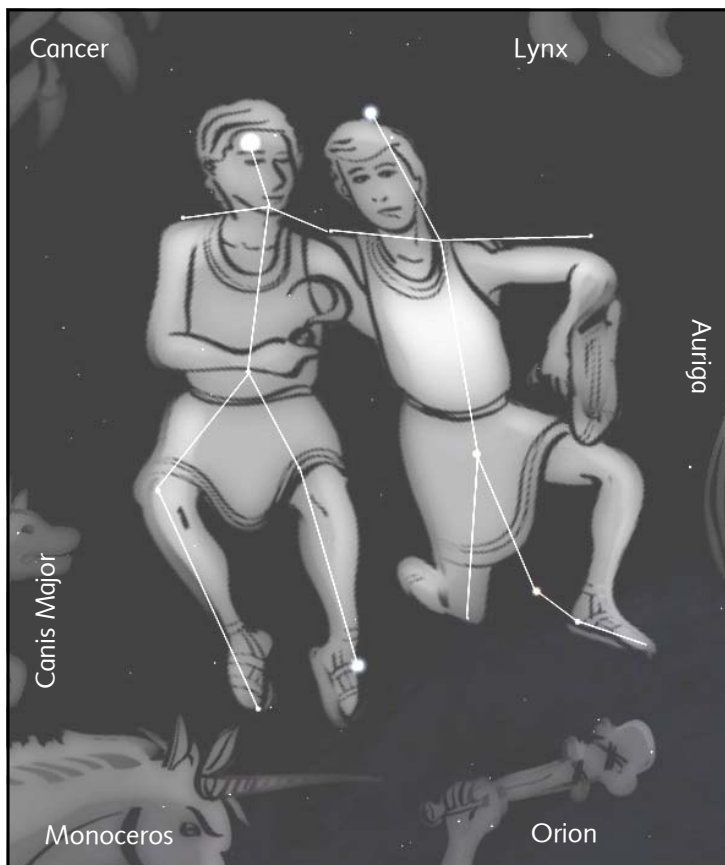
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February's early nights mean you don't need to stay up late to go stargazing, so make the most of the sky objects on offer. There are plenty of bright stars to help you navigate the heavens, and with famous winter constellations to find there's a lot to see.

## Constellation of the month: Gemini

Gemini symbolises the twins Castor and Pollux, which are also the names of the brightest two stars in the constellation, representing the twins' heads. According to legend the two actually had different fathers: Pollux was a child of Zeus and so was immortal, but Castor was fathered by a man called Tyndareus, so was mortal.

According to legend Castor and Pollux were inseparable and never argued. One day they fought another pair of twins for the love of two women. Castor was killed which devastated Pollux who begged the god Zeus for the two to share immortality so they could always be together. Zeus took pity on the surviving twin and so placed Castor and Pollux beside each other in the night sky where they could live forever.



## Finding Gemini

Gemini is a prominent constellation thanks to its two brightest stars, Castor and Pollux, which lie very close to each other in the sky. Look quite high in the South and with luck you will be able to make the pattern out. It is above Orion and to the left of Taurus, so is close to other well-known star shapes.

## Look out for...

Use binoculars to scan the area near the toe of the right twin's foot and before long you'll find an open cluster of stars called M35. This was first discovered in 1745 and contains a few hundred stars. If you have good eyesight and can find a dark site away from light pollution, you may even be able to make out M35 without binoculars. If you have a telescope and enjoy a challenge, try hunting down the Eskimo Nebula. It is near the middle of the left twin. We now know that it is a "planetary nebula", an old star shedding its outer layers.

## News flash: solar systems spotted forming in the Orion Nebula

A survey of the Orion Nebula has discovered 42 protoplanetary discs, which are thought to be new solar systems forming. The Orion Nebula is the nearest area of dense star formation to the Earth. As hydrogen gas gathers to create new stars, protoplanetary discs emerge around them from the leftover material. This will eventually come together to create planets. Perhaps some of these will be like the Earth, and one day may even be home to some forms of alien life. The Orion Nebula will be studied in even more detail in the future, so expect new discoveries!



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## The planets in February

<b>Mercury</b>	is too close to the Sun as seen from Earth, so isn't visible.
<b>Venus</b>	shines very brightly and is visible for an hour or so after sunset.
<b>Mars</b>	is beginning to get dimmer but can be seen all night long.
<b>Jupiter</b>	is close to Venus, with the pair making a spectacular sight.
<b>Saturn</b>	rises at around 8:30pm in the constellation Virgo.

## Theme of the month: conjunctions

Because our planet is spinning in space and other astronomical objects are also moving, sometimes they appear very close to each other as seen from the surface of the Earth. These events are called conjunctions and can be impressive sights. February is a good month for conjunctions as two will be occurring.

On 16 February the two brightest planets, Venus and Jupiter, will appear next to each other. Look low in the Western sky at around 6pm, shortly before they set below the horizon.

After dusk on 21 February the Moon will appear to have a close shave with the Pleiades star cluster in the constellation Taurus. Both these objects look spectacular in binoculars or telescopes, so if you have these tools be sure to use them this night!

Don't worry if you miss these or have bad weather; there will be other conjunctions in 2010. Venus in particular is the planet to watch as it will be close to Mercury on 3 April, Saturn on 7 August, and Mars on 18 August.

Conjunctions are excellent photographic subjects as this image of the Moon close to Venus in January 2009 by astronomer Alan Dyer shows.

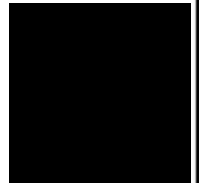


## Moon Calendar

05 February  
Last Quarter



14 February  
New Moon



22 February  
First Quarter



28 February  
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](http://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](http://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](mailto:lee.pullen@at-bristol.org.uk) and our keen astronomers will try to quench your thirst for knowledge!