# February 2012 Night Sky

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. Let's just hope that cloud doesn't spoil the fun.

Planetarium

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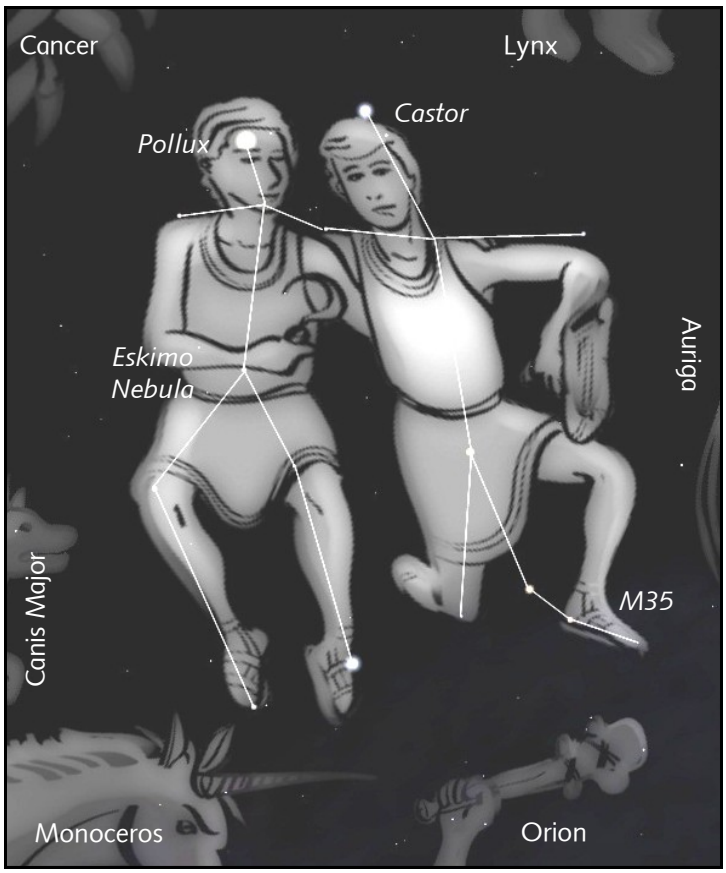
## Constellation of the month: Gemini

Gemini symbolises the twins Castor and Pollux, which are also the names of the brightest two stars in the constellation. According to legend they 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.

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 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, that lie very close to each other in the sky. Look quite high in the south and with luck you'll make the pattern out. It's above Orion and to the left of Taurus, so is close to other well-known star patterns.

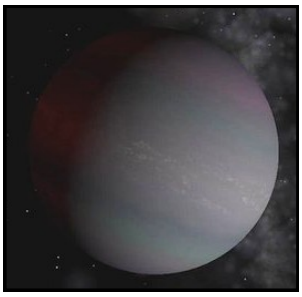
## Look out for...

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 discovered in 1745 and contains a few hundred stars. If you have a telescope and enjoy a challenge, try hunting down the Eskimo Nebula. It's near the middle of the left twin. We now know that it's a planetary nebula, which is an old star shedding its outer layers.

## News flash: Amateur astronomers find exoplanet

First-time stargazers Chris Holmes and Lee Threapleton have discovered a planet beyond our own Solar System by using the Citizen Science website www.planethunters.org. The planet is similar in size to Neptune but orbits very closely to its star, completing a "year" in only 90 Earth-days. Why not log on and try making your own discovery?

*Over 700 distant planets have been discovered to date. Image credit: NASA.*



## The planets in February

**Mercury** is very low in the west after sunset.
**Venus** is incredibly bright in the western sky during the evening.
**Mars** in the south-east will get brighter throughout the month.
**Jupiter** is the dazzling "star" in the west, following behind Venus.
**Saturn** rises in the east just before midnight.

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## Theme of the month: Impact!

Have you ever heard about asteroids and comets colliding with planets? It's rare, but can happen. It's thought that an impact from space contributed to the extinction of the dinosaurs! More recently, in 1994 we watched rocks in space smash into Jupiter.

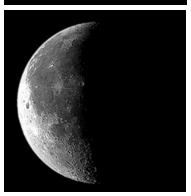
So what can we do to protect the Earth? We can spot Near Earth Asteroids using telescopes, although space rocks can be so small that it's difficult to track them all. We may be able to destroy an incoming asteroid, but the explosion would leave lots of pieces that could still hit the Earth. Another idea is to gently nudge the asteroid so that it changes direction.

A near-miss would be an incredible sight! We'd see the asteroid streaking through our skies, then passing harmlessly back into space. Would you like to track asteroids, and help protect the Earth?

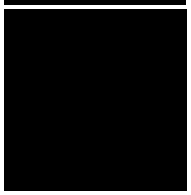
*Craters on Earth, like Barringer in Arizona, prove we've been hit in the past.*

## Moon calendar

7 February
Full Moon



14 February
Last Quarter



21 February
New Moon

## Would you like to know more?

**Zooniverse** is a collection of projects that lets you help professional astronomers and maybe make a real discovery. Visit *www.zooniverse.org* to get started.

**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 for you to create customised sky maps and see when satellites like the International Space Station and Iridium flares will be visible. Try it at *www.heavens-above.com*

**Smartphone apps** for astronomy are excellent ways to help you navigate the night sky.
*Google Sky Map* for Android and *Planets* for iPhones are free apps to start you off in the right direction.

**The Bristol Astronomical Society** is a group of local stargazers who are always keen to help beginners.
Find out more via *www.bristolastrosoc.org.uk*

Do you have an astronomy question for the At-Bristol Planetarium team?
E-mail **lee.pullen@at-bristol.org.uk** and our devoted astronomers will be happy to help!