

# December 2011 Night Sky

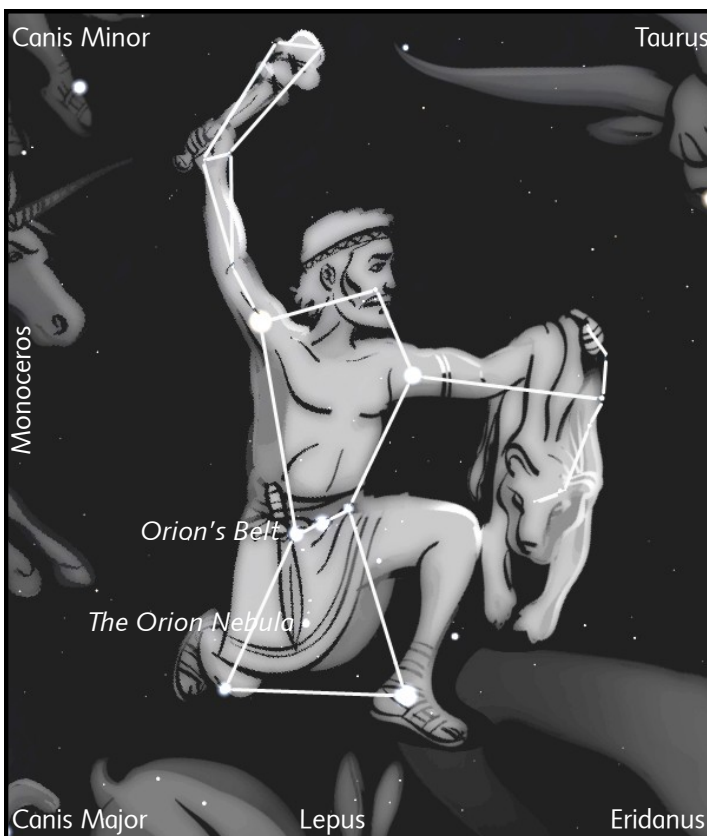


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December is the perfect month for stargazing. If the weather is clear, prepare yourself for glorious views of the night sky and because it gets dark so early you don't even need to stay up late. Get those thermal undies out though, because it can get pretty cold!

## Constellation of the month: Orion

Orion is perhaps the most famous constellation, and certainly one of the oldest. The story goes that Orion was the son of the god Poseidon and the nymph Euryale. Due to this respectable heritage, he was a great hunter but was also very boastful, saying he feared no animal and could defeat them all. Gaia, goddess of the Earth, overheard Orion and decided to teach him a deadly lesson by sending a seemingly harmless scorpion to attack the mighty hunter. Orion ignored the creature, thinking it beneath him. However, the scorpion had a poisonous sting and killed Orion. The ancient Greeks thought it no coincidence that Orion sets in the west as Scorpius rises in the east!



## Finding Orion

Orion is a distinctive pattern in the sky, and quite easy to spot. As soon as it's dark you should be able to make him out in the east, gradually moving across the sky, reaching due south at around midnight. Look for three stars in a row, that represent his belt. His shoulder and leg stars are also bright.

## Look out for...

The Orion Nebula is a famous astronomical object, and definitely one worth trying to see with your own eyes. Look just below the three stars of Orion's belt and you might be able to spot a faint misty patch. This is the nebula! Use binoculars for a better view. The Orion Nebula is over 1300 light-years away from us, which is a long way, but relatively close in astronomical terms.

## News flash: Asteroid made from leftover Earth

Astronomers have discovered that an asteroid called Lutetia is made from the same kind of material as Mercury, Venus, and Earth. Lutetia must have formed close to the Sun and then moved out in the Solar System to its current position in the Asteroid Belt, between the orbits of Mars and Jupiter.

*Image credit: ESA 2010 MPS for OSIRIS Team MPS/UPD/LAM/IAA/RSSD/INTA/UPM/DASP/IDA.*



## The planets in December

<b>Mercury</b>	is very low in the south-east around 06:30 — nice and early!
<b>Venus</b>	is exceptionally bright in the south-west after sunset.
<b>Mars</b>	rises in the east at around 22:45.
<b>Jupiter</b>	is south-west most of the night, only outshone by Venus.
<b>Saturn</b>	only rises over the eastern horizon very late at night.

## Theme of the month: Binocular astronomy

Most people think that a telescope is the next step from naked-eye stargazing, but actually binoculars are a much better choice. They're cheaper than telescopes, easier to use, and let you see many hidden gems in the night sky. Best of all, you may have some binoculars lying around, just waiting to be used.

So, what can we see through binoculars in December? If you've read the other side of this Night Sky Guide, you'll know that the Orion Nebula should be high on your list. Close to this is the Pleiades (nicknamed the Seven Sisters) in Taurus, a perfect cluster for binoculars.



Nearby is another good target, called the Hyades cluster, next to bright Aldebaran. And check out the Andromeda Galaxy, which your binoculars will show to be an elongated shape, like a misty grey patch against the darker night-time sky.

## Moon calendar

02 December  
First Quarter



10 December  
Full Moon



18 December  
Last Quarter



24 December  
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](http://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](http://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](http://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.bristolastro.org.uk](http://www.bristolastro.org.uk)

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 devoted astronomers will be happy to help!