

Amazing Space!

October - December 2015

Getting started in astronomy is as easy as looking up. This poster shows you how to find the planets Venus, Mars, Jupiter and Saturn plus the Moon and constellations without a telescope. If you are an early riser, the months of October and December both present the opportunity to observe meteor showers. A meteor shower occurs when the Earth passes through clouds of dust or rocks left in space by passing comets or asteroids. These impact the Earth's atmosphere causing short lived streaks of light astronomers call meteors. The meteor showers are named after the constellation from which the meteors appear to radiate.

See Saturn, Antares and the Moon together on Saturday 17 October 2015

Chart prepared for 7:30 pm AEST or 8:30 pm AEDT. Look low above the Western horizon.

See Venus, Mars, Jupiter and the Moon together on Saturday 7 November 2015

Chart prepared for 3:30 am AEST or 4:30 am AEDT. Look low above the Eastern horizon.

See Venus, Mars, Jupiter, the Moon and the star Spica together on Monday 7 December 2015

Chart prepared for 3 am AEST or 4 am AEDT. Look low above the Eastern horizon.

See a planet without a telescope

Despite what many people think, you don't need a telescope to see a planet in the night sky. The origins of the word planet (ancient Greek for 'wandering star') gives you a clue as to what you need to look for.

To make planet spotting even easier, use the Moon as a celestial signpost to find Venus, Mars, Jupiter and Saturn at different times during October, November and December 2015.

See a meteor shower

Orionid Meteor Shower Radiant
Shower active 2 October - 7 November 2015
Shower peaks 21 - 22 October 2015
Radiant rises after 11 pm AEST / 12 pm AEDT (on 21 October 2015)
Meteor speed 66 km/second or 237,600 km per hour

Geminid Meteor Shower Radiant
Shower active 4 - 17 December 2015
Shower peaks 4 am AEST / 5 am AEDT 15 December 2015
Radiant rises after 9 pm AEST / 10 pm AEDT (on 15 December 2015)
Meteor speed 35 km/second or 126,000 km per hour

Chart prepared for the following dates and times:
21 October 2015 3 am AEST / 4 am AEDT
15 December 2015 12 am AEST / 1 am AEDT

Observing tips
Observe for at least half an hour to maximise your chances of seeing meteors.
To observe the meteor shower, lie on the ground with your feet pointing towards the radiant. Look up and wait.

Northern horizon **North Eastern horizon**

Constellations

Constellations are imaginary pictures in the sky. Can you imagine a giant Cross or a Scorpion in the night sky? Use these charts to help you find the stars around which the ancient people created their constellations.

Cruce 'The Southern Cross' and 'The Pointers'

Look above the South Western horizon at the end of evening twilight.

Scorpius 'The Scorpion'

Look above the Western horizon at 7.30 pm AEST in mid-October.

Crescent Moon	First Quarter Moon	Gibbous Moon	Full Moon
18 October	21 October	23 October	27 October
16 November	19 November	21 November	26 November
16 December	19 December	21 December	25 December

Paul Floyd www.nightskyonline.info July 2015. You are free to reproduce and distribute this resource for non-commercial purposes but not to modify it in any way without permission from the author. Full licence conditions at <http://creativecommons.org/licenses/by-nc-nd/3.0/>.

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