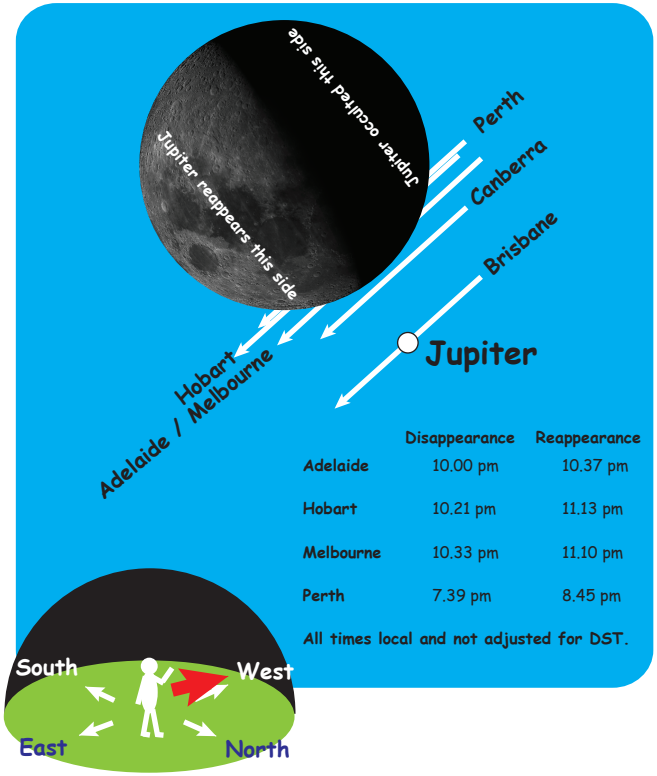
Amazing Space!

January - March 2013

Getting started in astronomy is as easy as looking up. This newsletter shows you how to find the planets Jupiter and Saturn plus the Moon and constellations without a telescope. There is also a preview of 10 May 2013's Partial Solar Eclipse.



	Disappearance	Reappearance
Adelaide	10.00 pm	10.37 pm
Hobart	10.21 pm	11.13 pm
Melbourne	10.33 pm	11.10 pm
Perth	7.39 pm	8.45 pm

All times local and not adjusted for DST.

Left: Look above the North Western horizon on 18 February to observe the Moon pass Jupiter or occult it (depending on where you live).

Left: Look above the Eastern horizon after 9 pm AEST in late March to observe the Moon pass Saturn.

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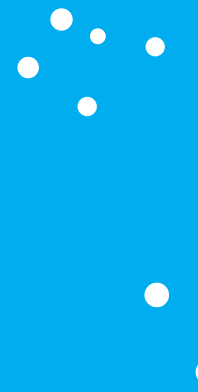
Constellations

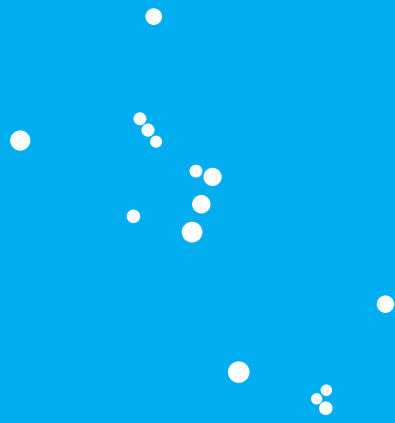
Crux 'The Southern Cross' and 'The Pointers'



Look above the Southern horizon at the end of evening twilight (February - March).

Constellations are imaginary pictures in the sky. Can you imagine a giant Hunter or a Cross in the night sky?

Orion 'The Hunter'



Look above the North Western horizon at the end of evening twilight (January - March).

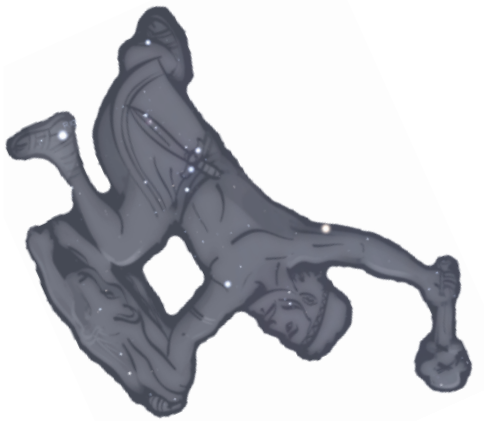


Image credits

Full Moon disc: NASA.gov
Southern Cross and Orion: Stellarium (Stellarium.org)

Find the Moon

January - March 2013

Crescent Moon
January 16
February 15
March 17

First Quarter Moon
January 19
February 18
March 20

Gibbous Moon
January 22
February 21
March 22

Full Moon
January 27
February 26
March 27

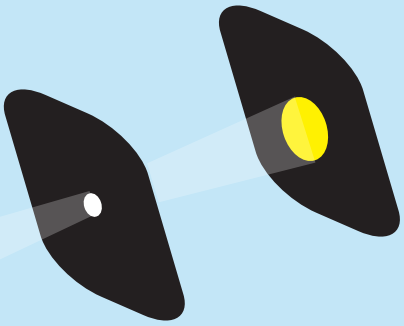
West **North** **East**

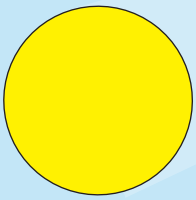
Solar Eclipse Pinhole Viewer

Solar Eclipse 10 May 2013

Instructions

1. Cut the viewer in half (on the dashed line).
2. Make a pinhole at the location marked.
3. Position the pinhole so the Sun's image falls onto the blank side of the second page as shown (at right).
4. Look only at the projected image of the Sun. Do not look at the Sun through the hole.
5. The larger the gap between the two pieces of paper, the bigger the Sun's image will be.





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Safety Warning!

Looking directly at the Sun without using solar filters designed to filter 100% of the Sun's ultraviolet radiation may result in permanent blindness.

10 May 2013 Annular / Partial Solar Eclipse

Note: Eclipse times listed for local time zones. Event times thanks to Google Maps. **UT times here:** http://eclipse.gsfc.nasa.gov/OH/OHtables/OH2013-Tab02.pdf

Australian Curriculum links for school teachers

Arranging for your students to indirectly observe this eclipse provides the student with a real life example of '... how the relative positions of the Earth, sun and moon affect phenomena on Earth' (Year 7 Achievement Strand Australian Curriculum (Science) Earth and space sciences content strand reference ACSSU115).

Sydney

Eclipse begins:	7:49:34 am
Mid-Eclipse:	8:57:09 am
Eclipse ends:	10:14:20 am
Sun covered by Moon:	27%

Canberra

Eclipse begins:	7:49:43 am
Mid-Eclipse:	8:55:13 am
Eclipse ends:	10:09:36 am
Sun covered by Moon:	26%

Cairns

Eclipse begins:	7:27:57 am
Mid-Eclipse:	8:48:41 am
Eclipse ends:	10:27:00 am
Sun covered by Moon:	83%

Hobart

Eclipse begins:	8:06:21 am
Mid-Eclipse:	8:59:03 am
Eclipse ends:	9:56:03 am
Sun covered by Moon:	13%

Brisbane

Eclipse begins:	7:41:13 am
Mid-Eclipse:	8:57:49 am
Eclipse ends:	10:27:57 am
Sun covered by Moon:	40%

Perth

Eclipse begins:	Not visible
Just after sunrise:	6:58:00 am
Eclipse ends:	7:45:01 am
Sun covered by Moon:	52%

Darwin

Eclipse begins:	Not visible
Mid-Eclipse:	8:06:43 am
Eclipse ends:	9:28:13 am
Sun covered by Moon:	68%

Adelaide

Eclipse begins:	7:09:13 am
Mid-Eclipse:	8:14:41 am
Eclipse ends:	9:29:26 am
Sun covered by Moon:	38%

Melbourne

Eclipse begins:	7:50:07 am
Mid-Eclipse:	8:52:15 am
Eclipse ends:	10:02:06 am
Sun covered by Moon:	25%

Townsville

Eclipse begins:	7:28:34 am
Mid-Eclipse:	8:49:21 am
Eclipse ends:	10:26:54 am
Sun covered by Moon:	74%

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