

DECEMBER HAKIHEA HIGHLIGHTS

Bright Stars

For anyone new to the joys of star gazing, December heralds a beginner's dream. Some of the night sky's brightest stars will illuminate your experience. Orion, very much a summer constellation in Dunedin, will rise high in our northern night sky accompanied by his hunting dogs – the constellations of Canis Major and Canis Minor. Sirius, the 'dog star' impresses with its luminosity; the brightest star in our night skies, it can be found at the head of Canis Major (greater dog).

For Harry Potter fans out there, you can probably surmise where some of J K Rowling's inspiration came from! Orion itself boasts several highly luminous stars, not least of all the blue supergiant Rigel and the red supergiant Betelgeuse.

Not to be out done, our central and southern skies also contain some of the night sky's brightest stars. The second brightest star – Canopus – proudly rides the bow of the constellation of Carina, while the third brightest – Rigel Kentaurus, ever present in our southern skies – reigns supreme in the constellation of Centaurus.



Image: Orion as depicted in Urania's Mirror, engraved by Sidney Hall.

Sailing in an Ocean of Stars

The constellation of Carina is home to the second brightest star in the night sky, Canopus. This brilliant beacon of light makes finding the constellation a breeze. Canopus has appeared in the mythology of many ancient cultures.

This bright giant gets its modern name from the mythological navigator of King Menelaus of Sparta's ship – some versions of the tale suggest that Canopus was the helmsman or pilot of the ship.

Carina was once part of a much larger constellation known as Argo Navis (the ship Argo) – three modern constellations formed this great ship in the sky, Carina the keel, Puppis the stern, and Vela the sails. In Greek mythology Argo was the ship sailed by Jason and the Argonauts in search of the Golden Fleece. The origins of Argo Navis stem from ancient Greek, in the 1760s Nicolas Louis de Lacaille split the constellation into its modern components.

Carina is home to a diverse variety of deep sky objects, most notably the Carina Nebula (NGC 3372). This vast stellar nursery was discovered in the 1750s by Nicolas Louis de Lacaille, since then this active star-forming region has been well-studied, having had the cameras of the Hubble Space Telescope pointed at it on many occasions. Hubble took images of the nebula in 2010, its 20th anniversary – pictured on the front cover. The constellation lies between Canis Major and Crux (the Southern Cross) in Dunedin's south-eastern skies.

Remember a moment in time with a personalised star chart from Otago Museum!

Each chart shows the position of stars, constellations, planets, and the Sun, and the phase of the Moon for the exact time, date, and location of your special event.

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THE SKY TONIGHT TE ĀHUA O TE RAKI I TĒNEI PŌ



DECEMBER HAKIHEA SKY GUIDE

 OTAGO
MUSEUM

PERPETUAL
GUARDIAN
PLANETARIUM

MOON MARAMA PHASES



Phase

Date

Third Quarter	Tuesday, 8 December
New Moon	Tuesday, 15 December
First Quarter	Tuesday, 22 December
Full Moon	Wednesday, 30 December

PLANETS WHETU ĀO

Jupiter Hine-i-tīweka



1 December until 12.38am
15 December until 11.44am
31 December until 10.52am
In Sagittarius

Saturn Pareārau



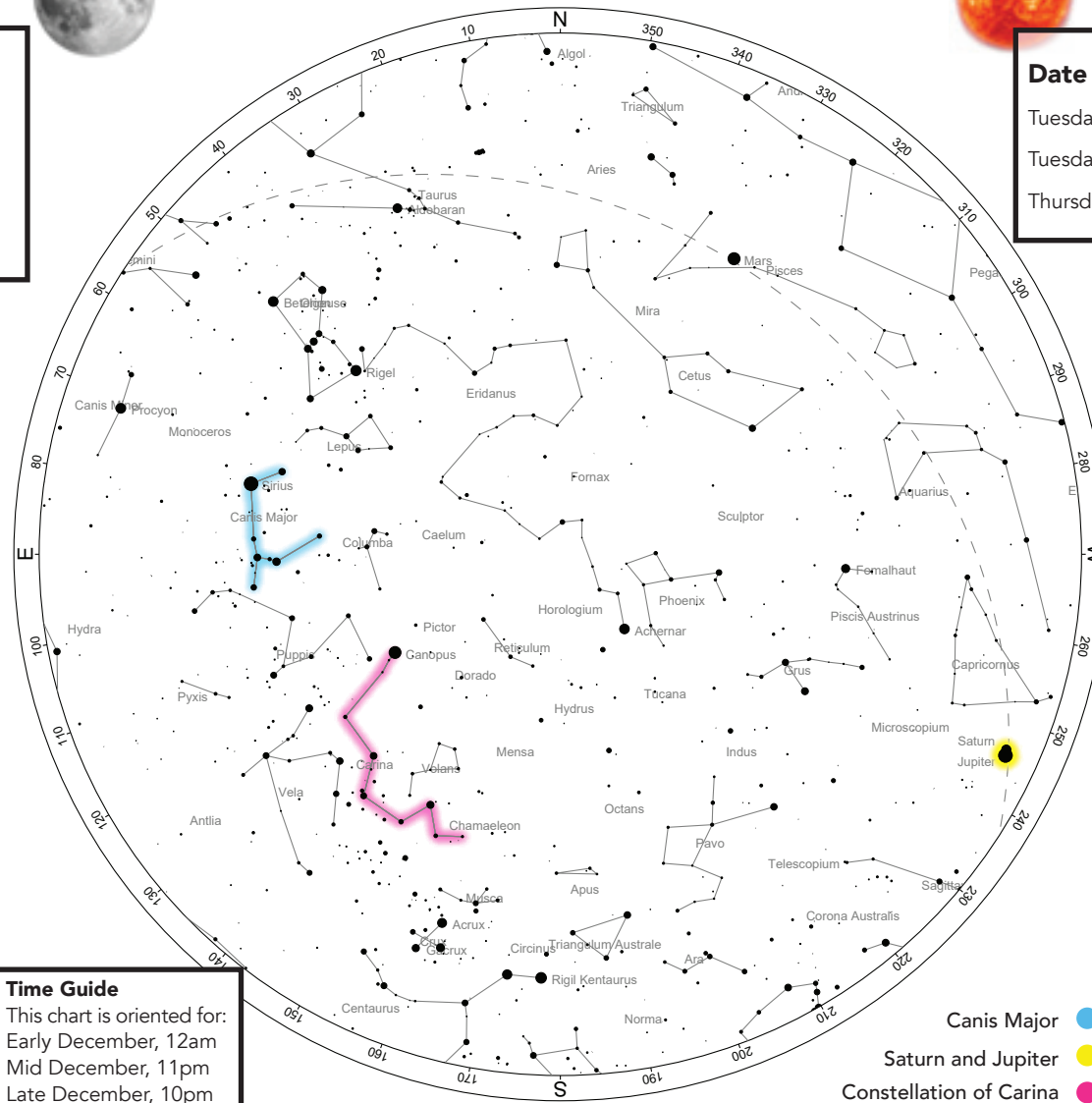
1 December until 12.37am
15 December until 11.46pm
31 December until 10.52pm
In Sagittarius

Mars Matawhero



1 December after 3.36am
15 December after 2.46am
31 December after 1.55am
In Pisces

DECEMBER HAKIHEA 2020

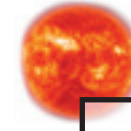


Time Guide
This chart is oriented for:
Early December, 12am
Mid December, 11pm
Late December, 10pm

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How to use this chart: Hold the chart up to the sky and rotate it, so the direction you are looking matches the direction printed on the bottom. For example, if you are looking south, place 'S' at the lower edge. Stars rise in the east and set in the west like the Sun. As the Earth turns, the sky appears to rotate clockwise around the south celestial pole. The sky makes a small shift to the west every night, as the Earth rotates around the Sun.

SUN RĀ RISE / SUNSET



Date

Rise

Set

Tuesday, 1 December	5.43am	9.10pm
Tuesday, 15 December	5.41am	9.24pm
Thursday, 31 December	5.50am	9.31pm

A RARE COMING TOGETHER

On 21 December the two largest planets in our solar system, Jupiter and Saturn, will appear to merge in our night sky.

This phenomenon is known as a great conjunction. It will be visible low on Dunedin's south-western horizon, following sunset.

The orbits of these two massive planets cause conjunctions to occur roughly once every twenty years.

2020's great conjunction will be the closest since 1623, and should be a spectacular sight – appearing as a bright double planet.