

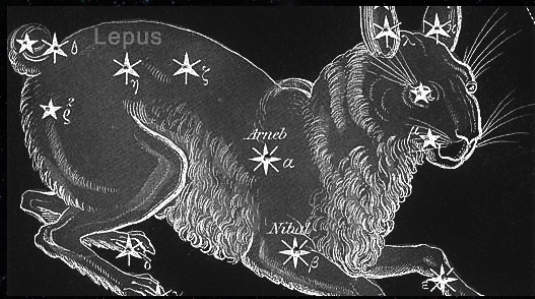
FEBRUARY HUI-TANGURU HIGHLIGHTS

Lepus

High in the north-eastern sky this month is the constellation Lepus, whose name is Latin for hare. Unlike many of the 48 constellations named by the second century astronomer Ptolemy, the Lepus is not a figure from Greek mythology. It is sometimes thought to be a hare being chased by the huntsman Orion, a neighbouring constellation, or by his hunting dogs Canis Major and Canis Minor.

Lepus contains only one deep space object, M79, a globular cluster of stars located 42 000 light-years from Earth. This cluster is visible as a fuzzy spot through a pair of binoculars.

To find Lepus, look to the north-east to first find Sirius, the brightest star in the night sky and part of the constellation Canis Major. To the left of Sirius is Lepus, right above the constellation Orion, which will stand out with three bright stars in a row (representing his belt). The brightest star in Lepus is Alpha Leporis, or Arneb, a white supergiant located around 1300 light-years from Earth that marks the shoulder of the hare.



Sunsets

With Valentine's Day taking place this month, many of us may be heading out to enjoy a sunset on the 14th. Sunset occurs when the Sun disappears below the horizon due to the Earth's rotation. The beautiful colours that we see at sunset are a result of the Sun scattering light. When a beam of light hits a molecule in our atmosphere, the light is scattered, sending different wavelengths of light in different directions.

The two main molecules in air are oxygen and nitrogen. As these molecules are very small compared to the wavelengths of sunlight, they preferentially scatter the shortest wavelengths, the blues and purples, giving us blue skies during the day.

However at sunset, the light has to take a longer path through the atmosphere than during the day. This means that most of the blue light has scattered out long before it reaches our eyes, leaving a more reds and oranges for us to see.

Once the Sun has set, it will still be a while before it's dark enough for stargazing. Light from the Sun will still be illuminating the sky until we reach astronomical twilight, which happens around two hours after sunset, when the Sun is 12 to 18 degrees below the horizon. After this point, it will be dark enough to see the stars.

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.

Save 10% on your chart by enjoying a show in the Perpetual Guardian Planetarium while you wait!

Place your order at the Museum Shop.

THE SKY TONIGHT TE ĀHUA O TE RAKI I TĒNEI PŌ



FEBRUARY HUI-TANGURU SKY GUIDE

PERPETUAL
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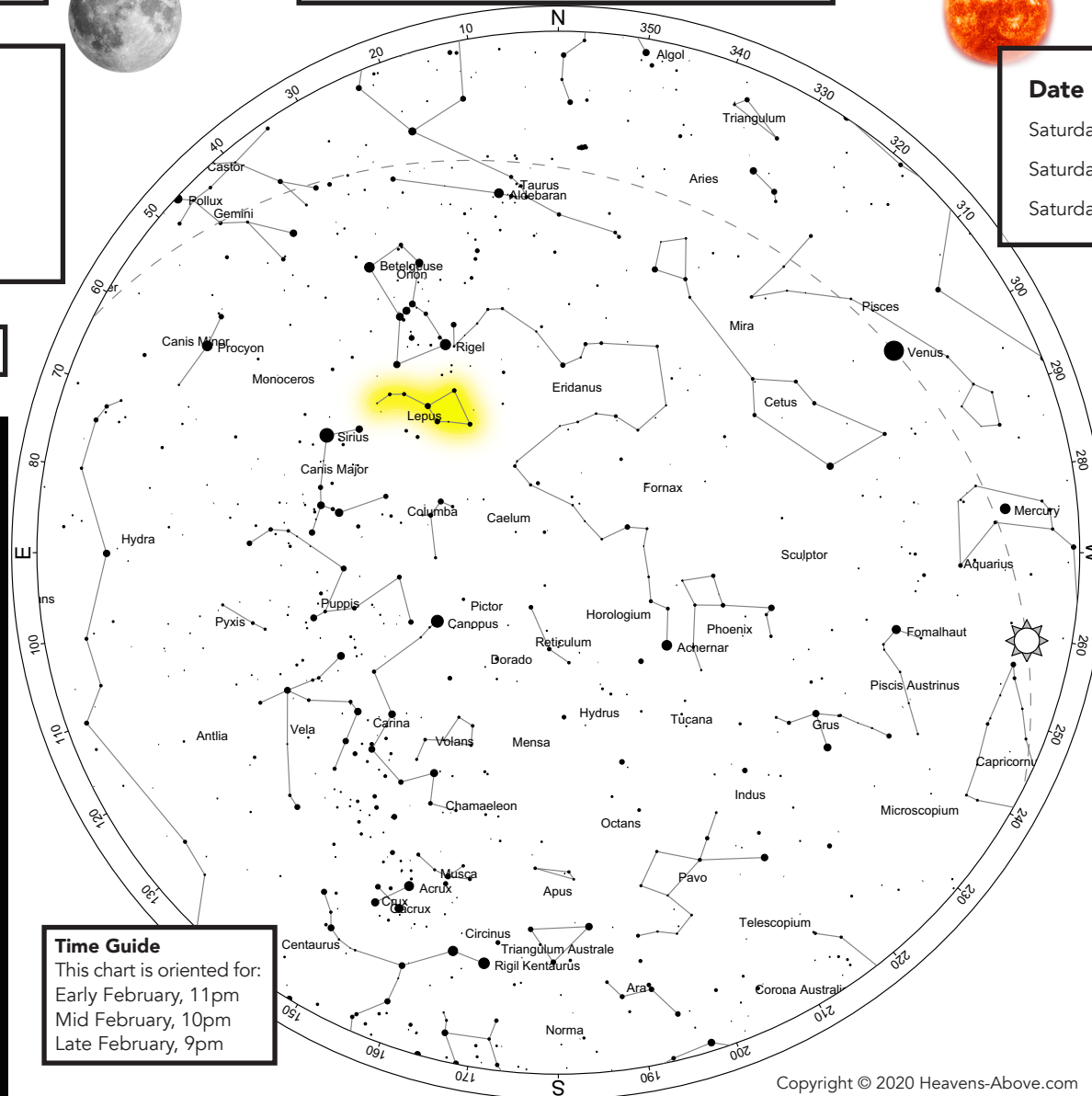

OTAGOmuseum

MOON MARAMA PHASES

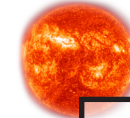


Phase	Date
First Quarter	Sunday, 2 February
Full Moon	Sunday, 9 February
Third Quarter	Sunday, 16 February
New Moon	Monday, 24 February

FEBRUARY HUI-TANGURU 2020



SUN RĀ RISE / SUNSET



Date	Rise	Set
Saturday, 1 February	6.30am	9.11pm
Saturday, 15 February	6.51am	8.51pm
Saturday, 29 February	7.12am	8.27pm

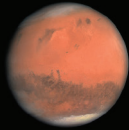
LEAP YEARS

Instead of the usual 365 days we have in a year, 2020 will have 366 days. This is called a leap year, and it means there will be a 29th day in February. We have a leap year almost every four years due to the movement of Earth and how we measure time.

A year is the length of time that Earth takes to orbit the Sun, which is approximately 365.242189 days – or 365 days, 5 hours, 48 minutes, and 45 seconds. As this is slightly more than the 365 days we call a year, every four years we need an additional day to make up for the extra time that orbiting the Sun takes. If we didn't do this, we would lose almost six hours off our calendar every year, and after 100 years, our calendar would be off by around 24 days.

PLANETS WHETŪ AO

Mars Matawhero



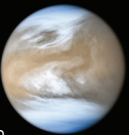
1 February after 2.21am
15 February after 2.04am
29 February after 1.52am
In Sagittarius

Jupiter Hine-i-tiweka



1 February after 4.02am
15 February after 3.27am
29 February after 2.46am
In Sagittarius

Venus Meremere-tū-ahiahi



1 February until 10.46pm
15 February until 10.19pm
29 February until 9.52pm
In Pisces

Time Guide

This chart is oriented for:
Early February, 11pm
Mid February, 10pm
Late February, 9pm

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.