A BRIEF HISTORY OF SYDNEY OBSERVATORY

The Australian Aboriginal people have been observing the southern sky for tens of thousands of years, and the early colonists also recognised the importance of studying the stars. A young lieutenant by the name of William Dawes was given the task of setting up an observatory when he travelled to Australia with the First Fleet in 1788. He set up his instruments in a wooden building at what is now called Dawes Point, only a few hundred metres to the north of Sydney Observatory, and the location of the southern pylon of the Sydney Harbour Bridge.

In 1821, Governor Thomas Brisbane established Australia’s first permanent observatory near Government House in Parramatta. Personally paying the salaries of two astronomers and installing his own equipment, Governor Brisbane with the help of his staff studied the southern sky and began documenting unknown stars. The observations were published in the Catalogue of 7385 stars from observations made at the observatory at Parramatta in 1835.

With little support for its continuation, Parramatta Observatory was forced to close in 1847. However, by 1855, the colonial government could not ignore the need for a time ball and an observatory in Sydney. Three years later construction of the time ball tower and the new observatory was sufficiently advanced for observations to begin. Work at the Observatory included determining star positions, measuring precise longitudes and latitudes, keeping time and making meteorological (weather) observations.

3-D SPACE THEATRE AND DOME TOUR

Departs from reception
2:30 & 3:30 pm, Monday – Friday during school term
2:00 & 3:00 pm, Saturday, Sunday and holidays

After exploring the displays inside the Observatory, experience the amazing 3-D Space Theatre and telescope viewing (weather permitting). Each tour is guided by an astronomer and lasts for 30 minutes.

In the day time visitors can view the Moon, Venus, bright stars and safely view the Sun using a special solar telescope. The 3-D theatre technology was developed in Australia by the Centre for Astrophysics and Supercomputing at the Swinburne Institute of Technology in Melbourne and shows short films on the solar system and space exploration.

No bookings are required. Visitors should arrive 15 minutes before the start of the tour.
Cost $7 per adult / $5 per child or concession / $20 per family (2 adults & 2 kids or 1 adult & 3 kids). Children under 5 and Powerhouse Museum members are free.

Tours are also available every night for booked groups.
See reception for details or phone (02) 9921 3485. Bookings essential. Additional costs apply.

SELF-GUIDED TOUR

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Above: inside the 3-D space theatre; Sydney Observatory, north dome; a lunar eclipse, photo by Melissa Hulbert; Sydney Observatory at night.
Room 4 ‘Planets and stars of the southern sky’
Explore the solar system and discover the constellations! Did you know that Pluto is no longer considered a planet? In 2006, astronomers reclassified the ice-covered sphere by dubbing it a ‘dwarf planet.’

Some of the things you will see:
- Southern Cross 3-D model — peer through the eyepiece and view the famous five star constellation that can only be seen from the southern hemisphere
- Solar system models (orreries) — watch a year go by as the Moon circles the Earth and the planets circle the Sun

Room 5 ‘Cadi Eora Birrung: under the Sydney stars’
Aboriginal people were Australia’s first astronomers and have watched the southern sky for more than 50,000 years. The stars were used as a calendar, for navigation by land and sea and to convey laws to future generations. This room looks at some of the Indigenous Dreaming stories about the different constellations.

FIRST FLOOR (VIA TRANSIT ROOM STAIRCASE)
Room 6 ‘Transit of Venus: the biggest ruler in the world’
The transit of Venus is of special interest to Australians. Captain James Cook travelled to Tahiti to observe Venus passing in front of the Sun in 1769 and on his return voyage mapped the east coast of Australia. Australia is in a prime location to observe the next transit of Venus in 2012.

Some of the things you will see:
- The photoheliograph — a telescope for photographing the Sun and one of only half a dozen such instruments in the world
- The photographic revolver — designed for use with the photoheliograph and the forerunner of the movie camera

FIRST FLOOR (VIA RECEPTION STAIRCASE)
Room 7 ‘Observing the weather: measuring and forecasting’
When the Observatory opened in 1858, its astronomers began recording Sydney’s rainfall and temperature. This room displays the many instruments that have measured the weather over the many years since that time.

Some of the things you will see:
- Laser ceilometer — a modern instrument used to measure the height of clouds.
- Newman and Bros mercury barometer — an instrument used at the Observatory in the late 1800s to measure atmospheric pressure.

Room 8 ‘Observing the weather: surviving the extremes’
An exhibition looking at 150 years of Sydney’s weather. Find out about the heatwave of 1939, the floods of 1984 and the hailstorm of 1999.

Some of the things you will see:
- Cloud maker — learn about different types of clouds through an interactive touch screen. If you spot white puffy rolls on a humid morning, expect these altocumulus clouds to bring rain in the afternoon

Room 9 Russell Room
H C Russell was an important pioneer of photography and a significant astronomer who lived and worked at the Observatory between 1870 and 1905.

Some of the things you will see:
- Historic astronomical, weather and family photographs
- Stunning views of the city, Harbour Bridge and the time ball tower from the balcony

The time ball tower
The time ball atop Sydney Observatory dropped for the first time on 5 June 1858, alerting Sydneysiders and ships in the harbour of the exact time. Today the timekeeping tradition continues, with Observatory staff dropping the time ball daily at 1.00 pm.