

About the Planetarium...

The planetarium is located at the *University of South Australia Mawson Lakes* and is part of the *School Of Natural and Built Environments*.

It contains a *Zeiss ZKP-1* star projector that simulates the starry sky on an 8 meter dome and has seating for 45. The projector provides a remarkably realistic sense of being under the real night sky. It is used to show the sky as seen from the southern hemisphere, pointing out constellations, the Milky Way, the Magellanic Clouds and where to look for planets. It also demonstrates the general celestial motions that cause the sky to appear different at various times of the night and year.

The planetarium is also equipped with a 1.6k projection system by which our astronomy educators can take the audience on a virtual guided tour of the solar system and the universe.

We accommodate the level of information from junior primary school to adult level.

While it is one of the smaller planetaria (yes that's the plural) in Australia, it has the advantage that we can interact with the audience and their questions. We find this often provides a unique and rewarding experience for the visitor.



How to get the best out of the Planetarium experience...

Children that are prepared in advance with some information about the solar system, space exploration and stars are more likely to ask questions and get value from the session.

Sessions are pitched at the age grade level so that information and the experience can be easily followed.

A good place to start with basic information aimed at different age levels can be found at this weblink:

<http://www.windows.ucar.edu/>

Monthly Southern Star maps can be downloaded for free from this weblink:

<http://skymaps.com> Be sure to select the southern hemisphere version for the current month

We follow the SACSA Framework Strand: Earth and Space.

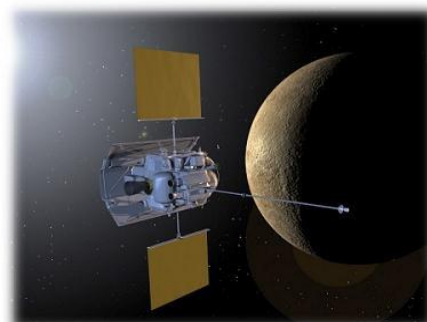
Some topic ideas for students to research or ask about during their planetarium session:

Sky and Space

- What are constellations
- What is the difference between a star and planet
- Why does the Moon change phases during the month
- How the cycles of the Sun and Moon affect us on Earth
- Animals that use the stars for navigation
- How far out have humans travelled in space
- What can a pair of binoculars show in the sky

Solar System topics

- The order and distances of planets
- Difference between rocky planets and gas giants
- Why are gas giants so big and rocky planets small
- Where do asteroids and comets come from
- How was the moon formed
- About planetary exploration with space craft



Basic questions about the stars

- What is a star
- How are they formed, how do they die
- The nature of the Milky Way (is it a galaxy)
- How big is the Milky Way
- How old is the universe
- What are black holes
- Have we found life out in space



There are also hand outs and worksheets available on the Planetarium website, great resources for school use.

Some useful information when visiting the Planetarium...

As the planetarium is located within the *School of Natural and Built Environments* there are often classes and tutorials in progress in adjacent rooms. **We ask if you can please be quiet as you come up the stairs and while entering the planetarium.**

- ◆ When inside the planetarium we also ask that patrons respect the equipment and chairs.
- ◆ Please refer to the Booking Form for costs.
- ◆ The Planetarium has a maximum seating capacity of 45 people.
- ◆ Mobile phones should be turned off. No torches or other lights are allowed.
- ◆ Be aware that the lights will be turned down and it will be dark for most of the session.
- ◆ If you want to take photos inside the planetarium please ask the astronomy educator running your session.
- ◆ A session lasts for 50 minutes, or more depending on the time requested by the organisers of the group.
- ◆ Toilets are located on the same floor as the planetarium, diagonally across the foyer.
- ◆ A parking information sheet will be provided to the organiser of the visit once the booking is confirmed.
- ◆ There is a lift located in the building for wheelchair and elderly access up to level 2.

TO BOOK: call reception on 8302 3138 or email: adelaide.planetarium@unisa.edu.au

We trust that you and your students will find the planetarium visit educational and enjoyable!

Why not add a Movie to your session?

They are fun, educational and the children love them!

Tilt

Join Annie and Max and their robot friend as they fly into space to discover how the seasons work. They examine the apparent path of the Sun and the tilt of the Earth to find out about the day-night cycle and why it is different at different places on Earth and at different time of the year. They understand how the seasons are opposite in the Northern and Southern Hemispheres and are caused by two factors, the tilt of the Earth and the path of the Earth around the Sun.

Suitable for: Year level 1-7

Movie Duration: 25 minutes



Tycho to the Moon

'Tycho to the Moon' is a show produced especially for the kids - shown on the Planetarium 360 degree full digital dome. Tycho is the dog that doesn't just howl at the moon...he goes there. Blast off on an amazing ride with Tycho and his friends, Ruby and Michael on a great adventure in space. Learn about night and day, phases of the moon, space travel and the lunar surface. See what it is like to play in zero gravity, watch meteors shoot across the night sky, witness earth from space and get a close up look at the sun.

Suitable for: Year level Preschool - 3

Movie Duration: 20 minutes



Secret of the Cardboard Rocket

Join two young adventurers on a magical journey through the Solar System with guidance from a talking astronomy book, a cardboard rocket, and a vivid imagination. During this imaginative show, audiences will land on Venus, fly through the rings of Saturn and discover the secrets of the Solar System.

Suitable for: Year level 2 - 4

Movie Duration: 30 minutes





Astronaut

The exploration of space is the greatest endeavour that humankind has ever undertaken. What does it take to be part of this incredible journey? What does it take to become an astronaut?

Experience a rocket launch from inside the body of an astronaut. Explore the amazing worlds of inner and outer space, from floating around the International Space Station to manoeuvring through microscopic regions of the human body. Discover the perils that lurk in space as we subject 'Chad', our test astronaut, to everything that space has to throw at him.

Suitable for: Year level 3 upwards

Movie Duration: 23 minutes



Wildest Weather in the Solar System

Join National Geographic on a spectacular journey to witness the most beautiful, powerful, and mysterious weather phenomena in the solar system. From a storm the size of a 100-megaton hydrogen bomb, to a 400-year-old hurricane, to a dust storm that could engulf entire planets.

Audiences will fly through the thick atmosphere of Venus, encounter magnetic storms on the sun, liquid methane showers on Titan, and anticyclones whirling at hundreds of miles per hour on Jupiter. Packed with eye-popping visuals, amazing computer generated imagery and cutting-edge science.

After this whirlwind adventure, you'll be glad you live on Earth!

Suitable for: Year level 4 upwards

Movie Duration: 20 minutes



Capturing the Cosmos

Australian Astronomers today are exploring the universe on a grand scale. But knowing what's out there is just the first step. Putting the pieces together to unlock the mysteries of the universe is the ultimate goal. Discover the new astronomy being carried out under the breathtaking skies of the Australian outback. What will be learnt about our place amongst the stars?

Suitable for: Year level 8 upwards

Movie Duration: 27 minutes



Cosmic Collisions

A radical change from our peaceful night sky. Cosmic Collisions presents the spectacular result of gravity pulling together planets, stars, and galaxies. Here are explosive encounters that ended the age of the dinosaurs and gave birth to new stars, but also created conditions essential for life on earth the Sun's warmth, ocean waves. Cosmic Collisions provides an extraordinary view of these forces - constructive or catastrophic - that continue to affect our universe.

Suitable for: Year level 5 upwards

Movie Duration: 23 minutes