



### **STAGE 4 PRESENTATION OUTLINE.**

Each presentation lasts for approx 40 - 60 minutes and includes 2 or 3 sections.  
Presentations can be customised to your students' level of learning.

### **SECTION 1. PRESENTER-LED TALK.**

We go on an interactive journey looking at our Planet, Solar System, Galaxy and Universe.  
We look at:

- The relationship between the Earth, Moon, Sun & Planets.
- Planet sizes, orbits, speeds and distance.  
(OR)
- How technological developments and scientific discoveries have significantly changed people's understanding of the solar system.
- How astronomers from different cultures and ages have contributed to the current understanding of the solar system.
- Historical and current models of the Solar System.
- How big the Universe is and our place within it.

#### **\*Covers Stage 4 syllabus content.**

- Day and night, seasons and eclipses are caused by the relative positions of the Sun, the Earth and the Moon.
- Ideas by people from different cultures have contributed to the current understanding of the Solar System.
- Compare historical and current models of the Solar System to show how models are modified or rejected as a result of new scientific evidence.
- Examples of how technological advances have led to discoveries and increased scientific understanding of the Solar System.

\* Stage 4 syllabus content is covered between our 360° movies and presenter-led talks.

## SECTION 2 - 360° SURROUND MOVIE

We have a number of choices here. Choose your own or let us help you decide.

**'Moonbase One'** - <https://www.planetarium.com.au/moonbase-one>

The Moon has always captivated humanity, inspiring us to leave the world behind and venture into space. Come along on an amazing adventure as we strive to understand our magnificent neighbour, The Moon. Taking place across the night of a full moon, we join a Virtual Reality games developer as she struggles to work out what is wrong with her new game. The game is set on the Moon and is due for launch very soon. But... there's a problem. As the game is all based on real science, could the bug be something to do with the phases of the Moon or how it was formed?

The show features stunning visualisations of the Moon's violent formation, captures the achievements of lunar exploration, and demystifies natural phenomena such as eclipses and the changing phases of the Moon.

**'We Are Aliens'** - <https://www.planetarium.com.au/we-are-aliens>

As a species, we have always looked to the sky and asked 'Are we alone'?

How do we know which planets could harbour life? What are the requirements for life?

Finding the right conditions to support life is a delicate balance, and scientists are on the lookout for exoplanets in the 'Goldilocks Zone' – Not too hot, and not too cold!

Join scientists in the hunt for real aliens.

**'Stories In The Stars'** - <https://www.planetarium.com.au/stories-in-the-stars>

European night sky stories are familiar to many people. However, the stories indigenous to the southern skies are less well known. Although different Australian Aboriginal groups have different astronomical traditions, there are some broad similarities. Explore Indigenous Australian astronomy, find out how indigenous culture describes constellations that cannot be seen from northern latitudes.

Even constellations that can be seen from Europe appear a different way in the sky in the southern hemisphere.

**'We Are Astronomers'** - <https://www.planetarium.com.au/we-are-astronomers>

Do you know what an astronomer does? Today's astronomer is not the lone observer of past centuries.

We Are Astronomers reveals the global collaboration, technology and dedication required to answer the unresolved questions of the Universe. Travel from the big bang to the future of astronomy, see the James Webb telescope and take a hurtling trip around the Large Hadron Collider at CERN.

**'Sizing Up Space'** - <https://www.planetarium.com.au/sizing-up-space>

How big is the distance between the Earth and the Sun - or between the Sun and the other planets?

Discover the Light Year, the very large 'ruler' that scientists use to measure the size of Space.

Be amazed by the ever-increasing distances to the nearest stars, to the edge of the Milky Way and to the farthest galaxies in the Universe.

**'Astronaut'** - <https://www.planetarium.com.au/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.

**'Night Of The Falling Stars'** - <https://www.planetarium.com.au/night-of-the-falling-stars>

Shooting stars, they emit light and fade away in an instant.

What are they?

Most shooting stars appear on certain days each year, a phenomenon we call meteor showers.

Why do these special nights happen?

What is the connection that links shooting stars and our solar system?

Come take a journey through time and space to discover the secret of meteor showers.

These 7 movies are our most popular for Stage 4 however we also have a further selection of movies that may be suitable for your students depending on the topic and level of learning.

### **SECTION 3. 360° SURROUND PRESENTER-LED TALK**

#### **'What's In The Sky'**

An interactive 360° look at what is in the sky today and tonight. True to life and in real - time.

We look at:

- The motion and patterns of the Sun, Moon, Stars & Planets through the sky.
- Constellations & their mythology.
- Aboriginal Astronomy and stories.
- The birth and death of Stars.
- Nebulae
- Southern Cross and Star navigation.
- The Milky Way.
- Questions and answers.

Alternative option:

Galactic Journey - A journey through our nearest 120,000 Galaxies. Exploring our part of the Universe; Asking some of the biggest questions.

Feel free to ask for this presentation to focus on any particular topic. eg Aboriginal Astronomy and stories.

Please note that all presentations are subject to change and variation due to circumstance and/or time restrictions.