



STAGE 4 PRESENTATION OUTLINE.

Each presentation lasts approximately 40-60 minutes and includes two sections.

Presentations can be customised to your students' learning level and topic focus. Please let us know if there is anything in particular you would like to focus on.

SECTION 1. PRESENTER-LED TALK.

(Please choose one of the presenter-led talks below.)

Observing the Universe

Presenter-led Solar System and universe talk - Flat Screen.

Topics from:

- The Earth and its place in the Solar System
- The relationship between the Earth, Moon, Sun & Planets.
- Planets and their relative sizes.
- Our place in the universe,
- Stars, galaxies, nebulae, exoplanets and black holes.
- How historical and current solar system models are modified or rejected due to new scientific evidence.
- So, how big is the universe really?

Presenter-led sky talk - 360°

Topics from:

- What's in the sky tonight? An interactive 360° look at what is in the sky today and tonight.
- Aboriginal and Torres Strait Islander Peoples' Cultural Knowledges of astronomy.
- Phases of the moon, eclipses, and tides. Incorporating Aboriginal explanations.
- Predictable and observable phenomena on the Earth are caused by the relative positions of the Sun, the Earth and the Moon.
- Aboriginal and Torres Strait Islander Peoples use the sky to identify weather, seasons and animal behaviour.
- How historical and current solar system models are modified or rejected due to new scientific evidence.

SECTION 2 - 360° SURROUND MOVIE

(Please choose one of the movies below 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 have 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 and that predictable and observable phenomena on the Earth are caused by the relative positions of the Sun, the Earth and the Moon.

'Capturing The Cosmos' - <https://www.planetarium.com.au/capturing-the-cosmos>

Imagine being able to see more than astronomers have ever been able to see before. What would it be like to peer back in cosmic time, into the vast blackness of space and witness how the universe has evolved into what we see around us today?

How have Australian scientists contributed to the world of Astronomy?

Explore the Universe through observation, experimentation and analysis.

'We Are Stars' - <https://www.planetarium.com.au/we-are-stars>

Where did it all come from? How did it all begin? What are we made of?

Can it really be true that we are made of stars?

Starting with the Big Bang, explore the secrets of our cosmic chemistry, atoms, gravity, the elements, our explosive beginnings and connect life on Earth to the evolution of the Universe.

Incorporates branches of biology, chemistry, and physics.

'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.

Explores why scientific research is usually collaborative and builds on the work of others.

'We Are Guardians' - <https://www.planetarium.com.au/we-are-guardians>

From the smallest bacteria to the most enormous ocean whale, there exists a link between all things.

In a world out of balance, We Are Guardians examines how ecosystems are intrinsically connected and, with the increasing use of Satellite Monitoring, explores the links between human activities, climate change, and sustainability.

'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 differently in the sky in the southern hemisphere.

'The Great Solar System Adventure' <https://www.planetarium.com.au/the-great-solar-system-adventure>

Join showman extraordinaire "The Great Schiaparelli" as he takes the audience on a death-defying space-time adventure within his wondrous Observatorium.

From the sun-scorched surface of Mercury to the icy expanses of Pluto and beyond, prepare to encounter the myriad dangers and wonders of our Solar System on a breathtaking tour that reveals just how precious our home planet really is.

Be warned though, the Observatorium isn't just for show. It will transport the audience right to the heart of some of the deadliest locations in our slice of the heavens. It's going to take some fancy flying to get everyone back in one piece!

'One Step Beyond' <https://www.planetarium.com.au/one-step-beyond>

One small step was just the beginning. Now, we take one step beyond – driven by curiosity, bound for Mars, and ready to write the boldest chapter in human exploration.

Experience the thrill of launch, the challenges of life in space, the cutting-edge technology of NASA's Artemis program, and the search for life that could transform how we see our planet, our past, and our place in the cosmos – as we prepare for humanity's biggest step yet: setting foot on Mars.

'MARS 1001' - <https://www.planetarium.com.au/mars-1001>

The first men and women to travel to Mars are alive and amongst us today.

MARS One Thousand One is a stunning film that brings home the reality of manned Mars exploration, the greatest engineering feat ever to be attempted. The film is set just far enough into the future to seem real, yet with science-fictional touches to indicate it's still a little way off.

These ten 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.

Find out more <https://www.planetarium.com.au/now-showing>

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