



## STAGE 2 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.

### **Stage 2 Physical and living systems depend on energy.**

ST2-SCI-01 Uses information to investigate the solar system and the effects of energy on living, physical and geological systems

ST2-PQU-01 Poses questions to create fair tests that investigate the effects of energy on living things and physical systems

ST2-DAT-01 Uses and interprets data to describe patterns and relationships

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

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

### **The Sun is the centre of our solar system and provides our world with energy.**

#### Presenter-led Solar System talk - Flat Screen

##### Topics from:

- Earth's revolution around the Sun. Recognise that a complete revolution takes 365.25 days.
- The Sun provides our world with energy in the form of light and heat.
- Features of our solar system.
- Size comparison of the Sun and planets
- Moons and asteroids.
- Gravity is a force of attraction between objects and the Earth
- The force of gravity keeps Earth, the Moon, and the other planets in their positions in the solar system.
- Example: Rock Drop - Throw rock up - What about sideways? (Newton gravity movie clip.)

## 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/or Torres Strait Islander Knowledges of the night sky.
- Dreaming Stories.
- Day & night, Months, Years.
- Constellations.
- Maori, Roman, Greek, Arabic cultural references.
- Planets.
- Constellations & their mythology.
- The stars at night.
- Southern Cross and Star navigation.
- The Milky Way.
- Questions and answers.

## **SECTION 2 - 360° SURROUND MOVIE**

**(Please choose one of the movies below or let us help you decide.)**

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

Join our showman extraordinaire on a death-defying journey to the planets. Explore the wonders and perils of our Solar System in this breathtaking immersive adventure. 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.

**'Tilt'** - <https://www.planetarium.com.au/tilt>

Tilt tells the story of Annie and Max as they work to save the Earth when the seasons start to go crazy. Their journey takes them into space and around the planet as they discover the axis of the Earth and our Orbit around the Sun directly impacts the way the world experiences seasons. Tilt also covers seasonal changes and shadows.

**'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, and find out how indigenous cultures describe 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.

**Living things depend on energy and materials to survive.**

**\*5-minute clip or full movie - Recommended for Year 4 students and older\***

**'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.

- Systems on Earth make up environments: air, land, water, and living things.
- The atmosphere, hydrosphere and lithosphere provide the needs of living things.
- Relationships between habitat, ecosystem and environment.
- Living and non-living things in a habitat.
- Energy transfer between plants and animals occurs through food chains.
- Plants and animals depend on each other for survival.
- Compares the movement of invertebrates and vertebrates on land, in water and in the sky.

**'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.

**'Tycho Goes To Mars'** <https://www.planetarium.com.au/tycho-goes-to-mars>

Tycho, our favourite cheeky dog with a knack for getting into trouble, is finally blasting off to discover the red planet, Mars!

Tycho is in search of water to fly his steam-powered space kennel back home. But how will he find water on Mars, when it looks so cold, dusty and dry? Perfect for Stage 1 & Stage 2 students.

**'Cosmix'** - <https://www.planetarium.com.au/cosmix>

Have you ever wondered how the astronauts do their job?

Find out what a space flight looks like and how to prepare for it.

Learn how to sleep in space, how to cook cosmic food, and discover the answer to the most intriguing question of all..... Just how do Astronauts go to the toilet in space?

After a visit to the Space Station, we experience a nerve-wracking return back to Earth in a red-hot spaceship cabin! Buckle up!

These 7 movies are our most popular for Stage 2; 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.