



# Living on the Moon

<b>INDUSTRY FOCUS AREA:</b>	Science, Engineering, Digital Technologies
<b>VICTORIAN CURRICULUM LINKS:</b>	Science – Earth and Space Sciences, Ethical Capability, Critical & Creative Thinking, Personal & Social Capability
<b>TECHNOLOGY USED:</b>	Robotics, Coding, Virtual Reality, Vernier Tracks and Sensor Carts
<b>YEAR LEVEL:</b>	Year 7 - 8
<b>DURATION:</b>	1 Day
<b>LEVEL:</b>	Intermediate
<b>MAX STUDENTS:</b>	30

## Introduction

Scientific knowledge and understanding of the world changes as new evidence becomes available. Science knowledge can develop through collaboration and connecting ideas across the disciplines and practice of science. In this program, students will explore the effects of gravity and the relationship between the Earth and the Moon. They will gain an understanding of basic human physiological needs and how technology can enable humans to exist in space and on the Moon.

## Program Summary

Students will investigate the solar system with an emphasis on the Moon and its relationship to the Earth. They will do activities involving gravity, robots and virtual reality.

Students will explore:

- What is the relationship between the moon and earth? (
- What is our place in the solar system
- What are the basic physiological needs that need to be met if we are to inhabit another planet – or the Moon?
  - How seasons and eclipse are affected by the relative positions of the Sun, Earth and the Moon.

## Taking part in this program, students will collaboratively:

- Use robots to simulate how to live on the moon
- Investigate the effects of gravity by undertaking experiments using the Vernier tracks and carts.
- Explore and experience travel through space and conditions on other planets using virtual reality
- Investigate the basic human needs and collaboratively devise ways in which we could meet these needs if we were to live on the Moon

## Career Links:

Scientific researcher, technologists, engineers, programmer, software engineer

