

SPACE EDUCATION AND OUTREACH SYMPOSIUM (E1)
LIFT OFF - PRIMARY AND SECONDARY SPACE EDUCATION (1)

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MARS MISSION PROGRAM FOR PRIMARY STUDENTS

Abstract

The Victorian Space Science Education Centre's (VSSEC) scenario-based programs, including the Mission to Mars and Mission to the Orbiting Space Laboratory, utilise methodologies such as hands-on applications, immersive-learning, integrated technologies, critical thinking and mentoring. The use of a scenario provides a real-life context and purpose to what students might otherwise consider disjointed information. These programs engage students in the areas of maths and science, and highlight potential career paths in science and engineering.

The introduction of a scenario-based program for primary students engages students in maths and science at a younger age, addressing the issues of basic numeracy and science literacy, thus laying the foundation for stronger senior science initiatives. Primary students absorb more information within the context of the scenario, and presenting information they can see, hear, touch and smell creates a memorable learning and sensory experience.

The Primary Mission to the Mars Base gives primary school students access to an environment and equipment not available in schools. Students wear flight suits for the duration of the program to immerse them in the experience of being an astronaut. Astronauts work in the VSSEC Space Laboratory, which is transformed into a Mars base for the Primary program, to conduct experiments in areas such as robotics, human physiology, microbiology, nanotechnology and environmental science. Specialist mission control software has been developed by La Trobe University Centre for Games Technology to provide age appropriate ICT based problem solving and support the concept of a mission. Students in Mission Control observe the astronauts working in the space laboratory and talk to them via the AV system.

This interactive environment promotes high order thinking skills such as problem solving, team work, communication skills and leadership. To support the teacher in the classroom, and enhance the experience of the students, the program is supported with lesson plans, power point presentations and activities for a pre-visit school-based program. The student and teacher response to this program will be presented.