

THE SPACE EXPLORERS PROGRAM AT THE CENTRE FOR PLANETARY SCIENCE AND EXPLORATION



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The Space Explorers Program:

The Centre for Planetary Science and Exploration at Western University launched the *Space Explorers Program* in 2016. The program offers space science and technology themed programming on-campus during the summer and throughout the school year. The aim of the program is to empower children with the basic knowledge and workings of the many branches of planetary sciences and inspire the next generation of scientists and engineers. The participants engage in hands-on activities, daily projects, and demonstrations highlighting space focused issues in the fields of astronomy, biology, engineering, geography, and geology. The program is intended for children ages 9 to 14.

Space Explorers Program

Summer Camp

Summer Academy

PD Day Camp

March Break Camp

- Summer Camp expanded to a second location, David Dunlap Observatory in Richmond Hill, Ontario, in the summer of 2018.
- Based on the feedback from previous years, a special Summer Academy was launched in 2018 for campers ages 12-14, where all the sessions were led by CPSX and Western University experts.
- Professional Development (PD) Day camps and March Break camp were launch in Fall 2018 and 2019 respectively.



Figure 1A: Campers testing out their Galileoscope at Space Explorers – Summer Camp. **Figure 1B:** Campers checking out butterflies at the Biodiversity Museum during Space Explorers – Summer Camp. **Figure 1C:** Campers posing in front of the historic David Dunlap Observatory in Toronto, Canada. **Figure 1D:** Campers traversing a rover on a 3D Martian landscape at the Space Explorers – Summer Camp.

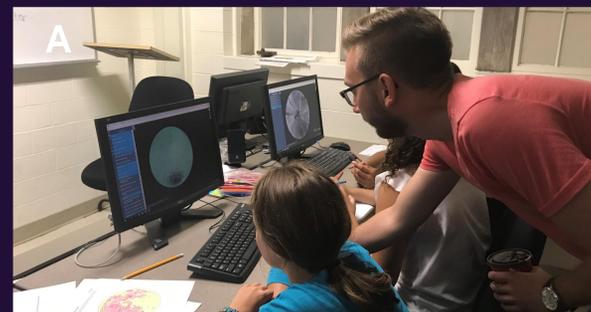


Figure 2A: Campers map mineralogy of the Moon at Space Explorers – Summer Academy under the guidance of CPSX graduate student, Patrick Hill. **Figure 2B:** Campers measuring the size of the impact craters at the Space Explorers – Summer Academy under the supervision of expert, Dr. Gordon Osinski. **Figure 2C:** Campers posing in front of their Mars habitat at the Space Explorers – PD Day Camp. **Figure 2D:** Campers mining an asteroid at the Space Explorers – PD Day Camp.

Programming:

More than 600 children have participated in the camp since its launch in 2016. In 2017 and 2018, the themes of the camp have included Journey to Mars, where campers prepared a mission to Mars through various activities such as mapping possible landing sites, designing missions, building rovers using Lego Mindstorms to traverse Martian landforms and designing and building a Mars habitat, and Journey through the Universe, campers learn about the celestial bodies, big and small, in our Solar System as well as in the universe. For 2019, the program will be celebrating 50th anniversary of Apollo 11 mission and a new theme will be introduced this summer - Journey to the Moon.

Collaborations:

In the three years, the program has collaborated with the on-campus Hume Cronyn Memorial Observatory, Western University's Biodiversity Museum, Rotman Institute of Philosophy, Royal Astronomical Society of Canada – London and Toronto Chapter, the Town of Richmond Hill, and the David Dunlap Observatory.

Assessment:

The participants of the program are asked to fill out post-camp survey on the last day of the camp, and the parents requested to fill out the feedback form after each camp. Strong efforts have been made to create a survey that allows us to gauge the impact of the program on campers' interest in space science and technology as well as whether they are considering a career in this field.

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For more details, check out the abstract:

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