

# *Intermediate Grades* **Gr 4-7** **SCHOOL PROGRAMS**

Now is the time for students to explore the wider world! Choose a Groundstation Canada Theatre demonstration, a Planetarium show, and a Workshop.

**PROGRAM A: \$25.40 PER STUDENT | ABOUT 3.5 HOURS**

- PLANETARIUM SHOW: INDIGENOUS ASTRONOMY / DREAMS OF STARS / BIG ASTRONOMY / WORLDS OF ICE
- GROUNDSTATION CANADA: PLANET HUNTERS / ROCKET LAB / COSMIC GLUE / SPACE IS A DANGEROUS PLACE
- WORKSHOP: MOON IN MOTION / EXTREMOPHILES / SPACE LAUNCH CHALLENGE
- COSMIC COURTYARD EXHIBIT SPACE

**PROGRAM B: \$19.25 PER STUDENT | ABOUT 3 HOURS**

- PLANETARIUM SHOW: INDIGENOUS ASTRONOMY / DREAMS OF STARS / BIG ASTRONOMY / WORLDS OF ICE
- WORKSHOP: MOON IN MOTION / EXTREMOPHILES / SPACE LAUNCH CHALLENGE
- COSMIC COURTYARD EXHIBIT SPACE

**PROGRAM C: \$17.70 PER PERSON | ABOUT 2.5 HOURS**

- PLANETARIUM SHOW: INDIGENOUS ASTRONOMY / DREAMS OF STARS / BIG ASTRONOMY / WORLDS OF ICE (PLANETARIUM)
- GROUNDSTATION CANADA: PLANET HUNTERS / ROCKET LAB / COSMIC GLUE / SPACE IS A DANGEROUS PLACE
- COSMIC COURTYARD EXHIBIT SPACE

**PROGRAM D: \$11.65 PER STUDENT | ABOUT 2 HOURS**

- PLANETARIUM SHOW: INDIGENOUS ASTRONOMY / DREAMS OF STARS / BIG ASTRONOMY / WORLDS OF ICE
- COSMIC COURTYARD EXHIBIT SPACE

# OUR SPACE, SHOWS, AND WORKSHOPS

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## **COSMIC COURTYARD:**

Visit our space-themed, hands-on exhibit space. Students can enjoy a range of activities like Star Stuff, morphing into an alien, touching a Moon rock, trying to lift a meteorite.

## **PLANETARIUM SHOWS**

### **One Sky Project: Indigenous Astronomy**

This collection of three short films made for the One Sky Project features Indigenous perspectives of astronomy, space, time and navigation that have been inspiring minds for millennia.

### **One Sky Project: Dreams of the Stars**

This collection of three short films made for the One Sky Project features Greek, Indian and Japanese perspectives of astronomy, history and mythology and how different cultures looking up into the night sky see different stories in the stars and new ways to study them.

## **PLANETARIUM SHOWS**

### **Big Astronomy**

People, Places, Discoveries explores three observatories located in Chile, at extreme and remote places. With its high, dry, and dark sites, Chile is one of the best places in the world for observational astronomy. The show gives examples of the multitude of STEM careers needed to keep the great observatories working, giving us new views of the universe and new data for astronomical science! The show is narrated by Barbara Rojas-Ayala, a Chilean astronomer.

### **Worlds of Ice**

Worlds of Ice invites us on a journey to the farthest reaches of the solar system, travelling through the many dimensions of ice—from the territories of the Arctic to a scientific complex nestled under the South Pole. We experience it all immersed in a kaleidoscopic igloo from which we emerge utterly dazzled by the chronicles of an icy wonderland, to which Beatrice Deer, a popular figure of Inuit culture, has lent her unique voice.

## **GROUNDSTATION CANADA SHOWS**

### **Planet Hunters**

Astronomers use their understanding of the relative position between a star and its planets to find planets beyond our solar system. Discover more about the planet hunting techniques astronomers use on their quest to find signs of life in the universe.



## **GROUNDSTATION CANADA SHOWS**

### **Rocket Lab**

What goes up doesn't necessarily come down. How do rockets get up there in the first place? Students participate in this live demonstration of the basic principles of Newton's Laws of Motion and its use in rocketry.

### **Cosmic Glue**

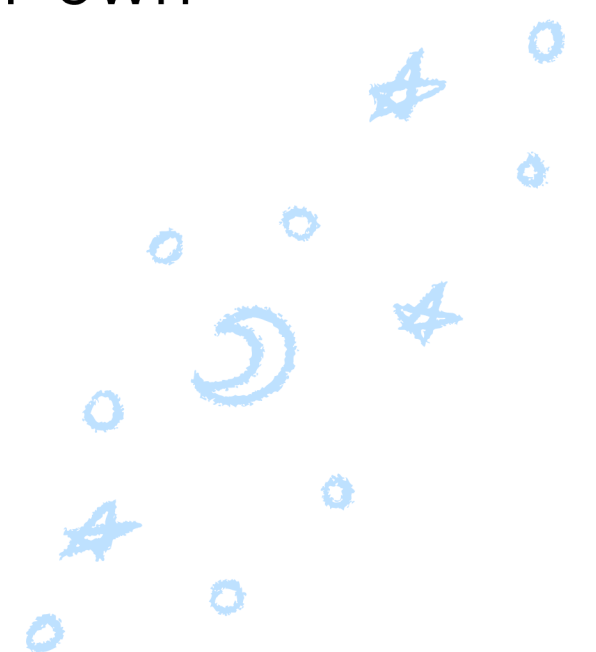
Hold onto your seats! We'll be discussing Newton's and Einstein's perspectives on gravity and how astronomers use gravity to study the universe.

### **Space is a Dangerous Place**

Space has many hazards. From wild temperature swings to speeding micrometeorites, humans have had to face many challenges. Learn about how space is a dangerous place and how scientists, engineers, and astronauts deal with these many risks.

### **Rock Stars - *COMING SOON***

Get curious about the different types of rocks on Earth, asteroids, and meteors! How does the periodic table of elements combine to create the stones on Earth's crust? How do stars explode and create the ingredients that make up our own lifeforms?



## **HANDS-ON WORKSHOPS**

### **Moon in Motion**

Learn about the relationship between the Earth, Sun and Moon focusing on moon phases, eclipses and tides. This interactive workshop allows students to see with their own eyes the monthly planet mechanics.

### **Space Launch Challenge**

What do scientists and engineers do to make their ideas a reality? They use their knowledge of scientific concepts and rigorous experimentation. In this workshop, students will apply basic concepts of physics to design, prototype and launch a simple rocket.

NOTE: Students will work together in groups of three and each group is required to supply their own 2-litre plastic pop bottles.

### **Extremophiles**

Does life exist beyond our solar system? By applying an understanding of the extremes that life on Earth can endure and the work of scientists searching for exoplanets (planets beyond our solar system), students will develop their own conclusions on whether alien life exists somewhere in the galaxy and what it might look like.