SPACE TO LEARN

INSPIRING THE
ARTEMIS GENERATION

ROYAL AVIATION MUSEUM
OF WESTERN CANADA

TAKE FLIGHT!

2026 EDUCATIONAL PROGRAMMING CATALOG

SPACE TO LEARN

ROYAL AVIATION MUSEUM
OF WESTERN CANADA

"We will have our ARTEMIS GENERATION from this program, youth around the world will look up and imagine 4 humans out there, and be reminded of the importance of humanity's collaboration."

-Jeremy Hansen in interview with the Royal Aviation Museum

INSPIRING THE ARTEMIS GENERATION

As Canadian astronaut Jeremy Hansen prepares to launch on Artemis II—the first Canadian to journey to the Moon—students across the country are looking to the sky with renewed excitement. In honour of Jeremy Hansen's historic mission, the Royal Aviation Museum is highlighting our space-themed STEM programming, designed to help students imagine their own place in the next chapter of space discovery.

CSA astronaut Jeremy Hansen, member of the Artemis II crew, gets out of an Orion mockup during a cabin leak simulation. (Credit: NASA/David DeHoyos)

"I grew up with a supportive family and school system and I was taught that things are possible."

Jeremy Hansen

Students reviewing flight information systems with educator Candace Kostna

SPACE TO LEARN

INSPIRING THE ARTEMIS GENERATION

Each program delivers hands-on, space-themed STEM education that encourages students to imagine themselves as part of Canada's growing space technology sector—an industry entering an exciting new era of research, innovation, and opportunity.

2026 AVAILABLE SPACE THEMED PROGRAMS

TOYS IN SPACE
(GRADES 4-6)

What if astronauts wanted to play soccer on the International Space Station? In this hands-on, curriculum-aligned lesson, students explore the physics of motion by testing familiar toys and predicting how they would behave in microgravity.

The program includes a visit to the museum's Black Brant rocket, offering a strong Canadian connection to space exploration and highlighting the world's most successful sounding rocket—manufactured in Manitoba.

SHIP THE CHIP
(GRADES 6-9)

How are fragile objects transported safely around the world—or into space? In this hands-on engineering challenge, students work in teams to design the smallest, lightest, and most cost-effective package to protect a single fragile potato chip.

The program includes a guided tour exploring how advances in flight transformed the transportation of cargo and people, with an up-close look at the Air Canada Vickers Viscount airliner—one of the museum's largest aircraft.

ORION TOUCHDOWN
(GRADES 6-12)

How do astronauts return safely from their missions in space? In teams, junior engineers will learn about how Canadian astronaut, Jeremy Hansen is preparing for the upcoming Artemis II Space Mission in 2026. After viewing actual footage from NASA's Langley Research Centre, teams will design, construct, and test a model Orion capsule to see this engineering process in action. An up-close glimpse of our Black Brant Sounding Rocket on the accompanying museum tour reinforces the importance of design for spacecraft required to travel to the most extreme of destinations.

"It's easy to say, but almost impossible to convey, how many people are working to make this happen. The innovative things they are doing to push humanity to this capability is truly amazing."

-Jeremy Hansen in interview with the Royal Aviation Museum

Jeremy Hanson visiting the Royal Aviation Museum in 2025

SAVE THE SUIT
(GRADES 7-12)

How does a spacesuit protect an astronaut in space? Students explore the science and engineering behind spacesuit design, learning how astronauts are protected during space missions. Working in teams, students use scientific inquiry and the engineering design process to design, build, and test a model spacesuit to protect astronaut Mark Watney from micrometeorites.

The program includes a guided museum tour featuring real examples of protective gear from the history of flight in Western Canada, including an up-close look at the ejection seat used by CF-104 Starfighter pilots.

GREEN FUEL ROCKETS
(GRADES 8-12)

It's not easy being green, but rocket scientists are working to make spaceflight more environmentally sustainable. Junior chemical engineers work in teams to choose solid and liquid components, such as vinegar and effervescent tablets, that they will then test in order to create a rocket propellant that maximizes thrust and minimizes environmental impact, with explosive results! The accompanying museum tour offers insight into how newer engines and fuels have contributed to the evolution of flight in Western Canada and beyond.

ROCKETRY: FINS & DISTANCE
(GRADES 8-12)

Junior rocket scientists learn about the history and design of rockets, from the first fireworks to spacecraft that have taken humans to the edge of our atmosphere and beyond. Our Black Brant Sounding Rocket, standing on the main floor and nearly touching our museum's ceiling, serves as design inspiration and provides a local connection to space exploration. Using the engineering process, students will design, build, and test their own straw rockets to discover how drag affects acceleration and distance in order to answer the question: what design will fly the farthest?

DEVELOPING OUR PROGRAMS

To develop our STEM (Science, Technology, Engineering and Math) courses, we engaged two of the brightest minds in Canadian STEM education: Maria Nickel, who works with Space Foundation International and the Houston Space Center and was a Canadian Space Agency Recruitment Program candidate; and Brian Ewenson, who has worked with the Canadian Space Agency and NASA's Space Shuttle Program and has presented on STEM topics to more than 250,000 people across North America.

TAKE FLIGHT! PROGRAMS

The Royal Aviation Museum offers curriculum-aligned STEM programs that use aviation to spark curiosity, build problem-solving skills, and connect learners with the science and technology of flight.

HOOP GLIDERS
(GRADES 1-4)

How does an aircraft fly without an engine? Is that even possible? As STEM-gineers, students will design, construct, and test a Hoop Glider to explore the concepts of gravity, force, and motion, while discovering how changes in the design of an aircraft can create changes in its flight. A Schweizer Glider, suspended from our museum's ceiling as part of our Experience Flight exhibit, offers an up-close look at a glider aircraft responsible for decades of pilot training, meant to inspire the next generation of flyers.

STOPPING AND GOING
(GRADE 2)

Young engineers will explore the position and motion of objects, including how wheels and axles help objects move. Our museum's Observation Lounge provides a big-picture look at arriving and departing aircraft, baggage carts, fuel trucks, and other vehicles that help airports operate every day. As a part of a design team, students will then build and test a model baggage cart to explore how motion is impacted by different shapes and surfaces. The accompanying museum tour provides insight into how different types of landing gear, such as skis for our Fairchild Super 71 bush plane, make aviation possible all over Western Canada.

WHETHER THE WEATHER
(GRADE 5)

Young meteorologists will discover how significant weather measurement is for aviation, learn about the different types of turbulence that aircraft might experience and how pilots deal with them, and visit our museum's Observation Lounge for an up-close look at our airport's runways and weather instruments in action. In engineering teams, they will then build anemometers which they can use to measure wind speed. Innovations such as skis used by our Fairchild Super 71 bush plane are encountered on the accompanying tour to reinforce how important a role weather plays in aviation.

OUR MOST POPULAR PROGRAM!

SCIENCE OF FLIGHT
(GRADE 6)

Through exploration of our interactive Science of Flight exhibit, junior aviators will learn about the four forces of flight, Bernoulli's Principle, and how various lighter- and heavier-than-air aircraft fly through the air. They will investigate how airflow affects flight with our museum's Wind Tunnel, and will have the opportunity to sit in the pilot's seat of a Royal Canadian Air Force Beechcraft Musketeer training plane to see its controls in action for themselves.

AIR TRAFFIC CONTROL
(GRADES 7-12)

How do thousands of planes stay safe and avoid each other daily? How are pilots informed about dangerous weather and important safety updates mid-flight? Who controls ground traffic at airports? In this dynamic, hands-on course, students will discover the answers to these questions about air traffic control systems. Using our unique view of the Winnipeg Airport, they'll learn about runways, the air traffic control system operated by NAV Canada, and explore career opportunities as an air traffic controller.

AIRPORTS AWAY
(KINDERGARTEN - GRADE 1)

An exciting combination of fun dramatic role play and an up-close view of our airport runways in action from our museum's Observation Lounge enables junior aviators to discover what happens at airports around the world every day. Students will learn about different roles involved in air travel, important safety features of airports, and how airplanes navigate their way safely through the skies. Our accompanying museum tour will take them through our Air Canada Vickers Viscount airliner to see how air travel has changed and stayed the same over time.

Students getting a hands-on introduction to engine function

DESIGNIACS
(KINDERGARTEN - GRADE 12)

After exploring the different types of aircraft featured in our museum collection on the accompanying tour, junior engineers will use their new knowledge to creatively collaborate in order to design, build, and demonstrate aircraft made out of recyclable materials. By learning about how the features of different aircraft change to serve different purposes, students will decide whether their team's aircraft needs large wings like our Air Canada Vickers Viscount airliner, a powerful jet engine like our CF-104 Starfighter, alternate landing gear such as floats or skis like our Fairchild Super 71 bush plane, or maybe even tilting rotors like our Canadair CL-84 Dynavert!

TIME FLIES
(GRADES 11-12)

By exploring the fascinating stories featured in our museum's multimedia displays, junior historians will learn about the people, places, and planes that changed Western Canadian history, and discover how these stories still impact Canada and the world today. The accompanying tour will highlight the creative and daring accomplishments of engineers like Elsie McGill and pilots like Wilfred "Wop" May, and students will view unique aircraft like our museum's Froebe Helicopter, the first helicopter built in Canada, constructed in 1930s Manitoba by three brothers using spare tractor parts.

HOW TO BOOK & COST

PICK YOUR PROGRAMS

Browse the programs in this catalogue or online at: royalaviationmuseum.com/education/school-programs-outreach

COMPLETE THE BOOKING REQUEST FORM

Download and fill out the request form.
Send it to programs@royalaviationmuseum.com.

One form may be used for multiple classes only if they are attending the same program on the same day.

If classes require different programs, submit separate forms.

RECEIVE CONFIRMATION

The request form is not a booking confirmation.

After review, the STEM Education Administrator will issue a booking confirmation and invoice.

FOR SELF-GUIDED OR PRIVATE TOURS

Contact info@royalaviationmuseum.com
or call 204-786-5503.

SPECIAL INQUIRIES OR ASSISTANCE

For help with the booking process, program selection, accessibility needs, or unique circumstances, email: programs@royalaviationmuseum.com
or call 204-786-0409.

PROGRAM TIMING & FEES

GRADES 2 AND UP
Full Day (10:00 a.m.–2:00 p.m.)
Two programs and a guided tour

Includes lunchroom booking and additional activities

HALF DAY (2 HOURS)
One-hour tour + one-hour classroom program

KINDERGARTEN–GRADE 1
Includes tour Galaxy Play Zone access

PRICING

HALF DAY: $12.00 per student
FULL DAY: $18.00 per student

Adult supervisors: Free at a 1:8 ratio; additional adults billed at the student rate

1-on-1 aides or educational assistants: No charge

MINIMUM CHARGES

Based on a group of 20 students
Half Day Minimum: $240
Full Day Minimum: $360
Groups with fewer than 20 students can attend but will be charged for the minimum group fee.

PAYMENT

- Due on the day of your visit
- Invoice is based on confirmed numbers
- More students than confirmed will result in an adjusted invoice.
- Fewer students than confirmed will not result in a reduction
- Accepted payments: cheque (preferred), credit card (by phone), cash

CANCELLATION POLICY

- Canceling within 2 weeks will result in a 50% charge
- Canceling within 1 week will result in a 75% charge
- Failure to show results in full charge
- Weather-related cancellations are considered exceptions
- If the museum must cancel, schools will be notified and offered alternatives

PLANNING YOUR VISIT

ARRIVAL
- Arrive 5–15 minutes before your scheduled start time
- Programs cannot be extended for early or late arrivals
- A reminder email is sent the week prior to your visit

PARKING & DROP-OFF
- Bus drop-off: Front bus loop
- Vehicle parking is $5 per vehicle
- One emergency vehicle may park at no cost
- For bus parking arrangements, contact: programs@royalaviationmuseum.com

ENTRANCE & ORIENTATION
- Enter through the School and Group Entrance on the side of the building facing the parking lot
- A staff member will meet your group and direct students to a secure room for coats and backpacks

SUPERVISION REQUIREMENTS
- Minimum: 1 adult per 12 students, or two adults per class, whichever is greater
- Supervisors—not museum educators—are responsible for student behaviour
- Insufficient supervision may result in non-admission
- Students are expected to:
  - use walking feet
  - speak with inside voices
  - respect artefacts and exhibit barriers
  - stay with the group at all times

DURING YOUR PROGRAM
- The museum remains open to the public
- Students may not cross any exhibit barriers
- Galaxy Play Zone: Not available for students in Grade 3 and up

LUNCH & BREAKS
- Lunchrooms must be requested in advance
- Microwaves and refrigerators are not available
- Boutique visits must occur before or after programming and require advance notice
- Groups visiting the boutique must enter in groups of 10 or fewer, each with a supervisor

EXPLORING THE MUSEUM
- Admission is valid for 30 minutes after programming
- Groups must remain under adult supervision

ACCESSIBILITY
- The Museum is fully wheelchair accessible
- Elevators, universal washrooms, and mobility devices are available

RECORDING POLICY
- Museum programs may not be filmed or recorded

CIBC

The Royal Aviation Museum of Western Canada gratefully acknowledges the support of CIBC as well as other generous donors who make our education programs possible.
A complete list of donors is available on our website