



# SCHOOL PROGRAMS

## 2019-2020

PRESCHOOL TO SECONDARY



CANADA AVIATION  
AND SPACE MUSEUM

# Curriculum Connections

The Canada Aviation and Space Museum offers a range of school programs designed to meet curriculum requirements in Ontario and Quebec. Each program maximizes opportunities for your students to explore, experiment, observe, assess, and discuss their findings. Participation is key, and is actively facilitated by our dynamic education staff.

Our guided tours are interactive, encouraging students to ask questions, make comments, and share their experiences. Programs that include workshops combine a tour with hands-on activities, inviting students to put theory into practice while deepening their understanding of the subject matter.

Each program will help your students to understand—and better appreciate—Canada's aerospace heritage. Our museum's world-class aerospace collection is the perfect backdrop for programs sharing compelling stories and extraordinary achievements, as well as how these relate to Canada's broader history.

**Activities, videos and other educational resources complementing these programs are available online at [IngeniumCanada.org/educational-programs](https://ingeniumcanada.org/educational-programs).**

**Free visit preview!** Teachers are welcome to visit the museum free of charge by presenting proof of their teaching status.

# Ontario

## Kindergarten to Grade 6

	<b>Science and Technology</b>	<b>Mathematics</b>
Kindergarten	The Big Blue Balloon Adventure	The Big Blue Balloon Adventure

	<b>Science and Technology</b>	<b>Social Studies</b>
	<b>Understanding Structures and Mechanisms</b>	<b>People and Environments</b>
Grade 1	Where Do Airplanes Come from?	Connecting Flight
2		Connecting Flight
3		Connecting Flight

	<b>Science and Technology</b>		<b>Social Studies</b>
	<b>Understanding Structures and Mechanisms</b>	<b>Understanding Earth and Space Systems</b>	<b>People and Environments</b>
4			Fly Me to the Moon
5			Fly Me to the Moon
6	Flight Night Flight Sleepover (Aviation) From the Ground Up!* (Aviation)	<b>NEW!</b> Innovate in Space Night Flight Sleepover (Space) From the Ground Up!* (Space)	Fly Me to the Moon

\*From the Ground Up! is an evening program

## Grades 7 to 12

	<b>Science and Technology</b>	<b>Social Studies</b>
	<b>Understanding Structures and Mechanisms</b>	<b>Canada, 1890-1914: A Changing Society</b>
7	Form and Function in Flight	
8		Made in Canada

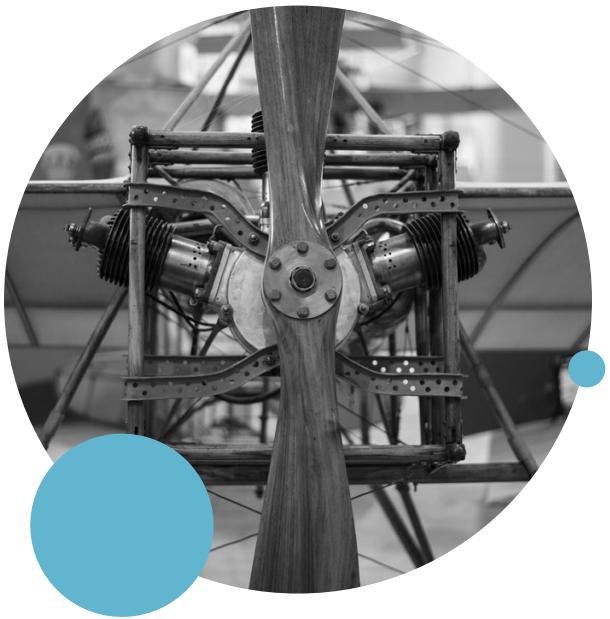
	<b>Technological Education</b>
	<b>Transportation Technologies</b>
9	Aviation and Technology

	<b>Technological Education</b>	<b>Canadian and World Studies</b>
	<b>Transportation Technologies</b>	<b>History</b>
10	Aviation and Technology	Canada and the World in Flight
11	Aviation and Technology	Canada and the World in Flight
12		Canada and the World in Flight

# Quebec

## Preschool

	<b>Mathematics, Science and Technology</b>
	Competency 5: To construct his/her understanding of the world
Preschool	The Big Blue Balloon Adventure



## Elementary Cycles 1 to 3

	<b>Mathematics, Science and Technology</b>	<b>Social Studies</b>
	<b>Science and Technology</b>	<b>Geography, History and Citizenship Education</b>
	Competency: To explore the world of science and technology	Competency: To construct his/her representation of space, time and society
Cycle 1	Where Do Airplanes Come from?	Connecting Flight



	<b>Mathematics, Science and Technology</b>	<b>Social Studies</b>
	<b>Science and Technology</b>	
	The Material World	Earth and Space
Cycle 2	Flight Night Flight Sleepover (Aviation) From the Ground Up!* (Aviation)	Night Flight Sleepover (Space) From the Ground Up!* (Space)
Cycle 3	Flight <b>NEW!</b> Innovate in Space Night Flight Sleepover (Aviation) From the Ground Up!* (Aviation)	<b>NEW!</b> Innovate in Space Night Flight Sleepover (Space) From the Ground Up!* (Space)
		Quebec Society between 1900 and 1980
		Fly Me to the Moon

\*From the Ground Up! is an evening program

## Secondary Cycles 1 and 2

	<b>Mathematics, Science and Technology</b>	<b>Social Studies</b>
	<b>Science and Technology</b>	
	The Material World	Competency 1: Examines social phenomena from a historical perspective
Cycle 1	Aviation and Technology	Made in Canada
Cycle 2	Aviation and Technology	Canada and the World in Flight

# School Program Descriptions

School Program Descriptions include all suitable grade levels, however, educators should cross-reference the Curriculum Connections Chart to verify the direct curriculum link (see pages 2-5).

## The Big Blue Balloon Adventure

Kindergarten / Preschool

Tour and Workshop

September through June

Duration: 90 minutes

\$6 per student

After reading *The Blue Balloon* by Mick Inkpen, your students will set out to discover a variety of aircraft. At each stop marked by a blue balloon, students will look for 3D shapes within each aircraft structure. They will also count wings, windows, and wheels, and graph their observations. Finally, students will head over to the Aircraft Inventor's Workshop, where they will build their own flying machines, and try on cool costumes.

## Where Do Airplanes Come from?

Grade 1 / Elementary Cycle 1

Tour and Workshop

September through June

Duration: 90 minutes

\$6 per student

If you were inventing an airplane, what would it look like? What materials would you use? What job would your airplane have? During the tour portion of the program, your students will look at airplanes as if they were designers and engineers. Inspired by what they've seen, they will head over to the Aircraft Inventor's Workshop to create and build their own model aircraft.

## Connecting Flight

Grades 1 to 3 / Elementary Cycle 1

Tour

September through June

Duration: 60 minutes

\$5 per student

During this interactive guided tour, your students will hear about early dreams of flight across different cultures, explore the ideas of aircraft inventors, and discover how air travel has affected life for people in different parts of Canada.

Students in Grade 1/Elementary Cycle 1 will practice map-reading using the museum's floor plan, and learn how aircraft have helped overcome the challenges of Canada's geography. Older students will discuss aeronautics in greater depth, exploring how people developed and improved aircraft to meet various needs.

## Fly Me to the Moon

Grades 4 to 6 / Elementary Cycle 3

Tour

September through June

Duration: 60 minutes

\$5 per student

In this interactive guided tour, your students will compare mythological stories of flight with the realities of today's aerospace industry. Along the way, they will stop at various points to discuss topics such as the perspectives of different communities on aviation topics such as bush-flying.

Students will also look at how aviation has helped shaped the Canadian identity. In addition, this tour offers older students insight into Canada's participation in international aviation and aerospace, including the country's role during the Second World War and the Cold War, and Canadian contributions to Space exploration.

## Flight

Grade 6 / Elementary Cycles 2 and 3

Tour and Workshop

September through June

Duration: 120 minutes

\$7 per student

In this program, your students will conduct experiments exploring the properties of air, as they discover the four forces of flight. During an interactive, guided tour of the museum's aircraft, students will observe and discuss shape, size, and choice of materials.

Students will examine the design of wings, engines, and propellers, then determine how these elements might affect the four forces of flight, as well as how the aircraft could be used. Students will also sit in the cockpit of the museum's Cessna 150. As they operate the controls, they will learn about the various control surfaces, and how they affect the airplane. In addition, students will build and test paper gliders.

## NEW! Innovate in Space

Grade 6 / Elementary Cycle 3

Tour and Workshop

September through June

Duration: 120 minutes

\$7 per student

Your students will explore Space through the lens of experiments conducted by Canadian scientists and astronauts. This curriculum-linked elementary school program is designed to inform students about Canada's strong aerospace history, while inspiring them to become future innovators. The program includes a tour of the museum's **Canada in Space** and **Health in Space** exhibitions, as well as an opportunity to carry out experiments on what happens to the human body in Space.

## NEW Exhibition!

Dreams take flight in **Above and Beyond**, a new special exhibition celebrating the power of innovation.

Your students will experience five interactive galleries featuring simulations and design activities related to real-life engineering challenges within the aerospace industry. Included with school programs from October through December 2019.



# A Night at the Museum!

## Night Flight Sleepovers

Grade 6 / Elementary Cycles 2 and 3

September through June

Duration: 6 p.m. to 9 a.m.

\$775 **minimum** fee

Through this exciting program, your group will experience a real "Night at the Museum" as they nod off under the wings of world-renowned aircraft! Night Flight Sleepovers include hands-on activities, a flashlight-guided tour of the museum, and a movie. Choose from two great themes:

### Night Flight Sleepover (Aviation)

Try out the controls of a Cessna 150, participate in amazing aerodynamics experiments, sit in an ejection seat, take a flashlight-guided tour, and more.

### Night Flight Sleepover (Space)

Test your space skills in our astronaut-training program, build a Space habitat, and get involved in some amazing Space science demos. A flashlight-guided tour and movie round out the evening.



## From The Ground Up! Evening Program

Grade 6 / Elementary Cycles 2 and 3

September through June

Duration: 6 p.m. to 9:30 p.m.

\$540 **minimum** fee

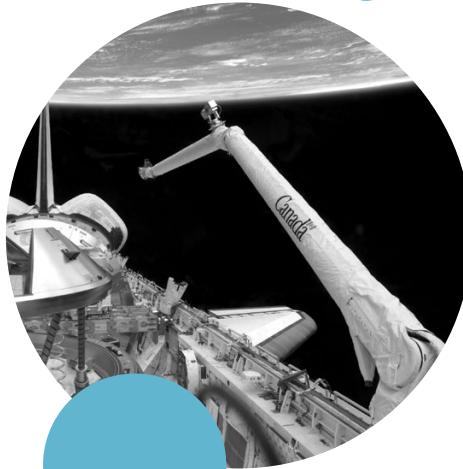
From the Ground Up! engages your group in an evening of exciting activities and workshops, and includes a flashlight-guided tour of the museum. Choose from two great themes:

### From the Ground Up! (Aviation)

Try out the controls of a Cessna 150, participate in amazing aerodynamics experiments, sit in an ejection seat, take a flashlight-guided tour, and more.

### From the Ground Up! (Space)

Test your space skills in our astronaut training program, build a Space habitat, and get involved in some amazing Space science demos. A flashlight-guided tour and movie round out the evening.



## Form and Function in Flight

Grade 7

Tour

September through June

Duration: 60 minutes

\$5 per student

This tour offers your students practical opportunities to identify different types of structures, and to discuss the forces that act upon them. Students will explore how aircraft have been built for specific purposes, and how they have evolved over time. They will also learn to identify factors that help determine the suitability of different materials for use in the design of aircraft as well as Space technologies (e.g. satellites, Canadarm).

**NOTE:** If you are a Quebec Secondary Cycle 1 science teacher please note that the Aviation and Technology program described below is more appropriate to your curriculum needs.

## Made in Canada

Grade 8 / Secondary Cycle 1

Tour

September through June

Duration: 90 minutes

\$5 per student

Your students will explore the impact of aviation and the development of Canada's aerospace industry since our first powered flight in 1909. The tour covers several important individuals and events, from early aviation in Canada through the end of the First World War, including the Aerial Experiment Association, Wallace Turnbull's wind tunnel and the Montreal Air Meet of 1910.

Iconic aircraft—including the de Havilland Canada Beaver and the Avro Arrow—are highlighted, as are made-in-Canada technologies such as Canadarm. The tour also involves a look at the aerospace contributions of exceptional Canadians, including Alexander Graham Bell, Commander Chris Hadfield, and Governor General Julie Payette.

## NEW BY SPECIAL REQUEST—Aviation and Technology Careers

All the same great information and hands-on interactivity as the regular Aviation and Technology program—with a special career-related twist! Your students will learn about historical aviation careers, while also exploring myriad possible careers in today's aerospace industry. This program meets requirements of the new Ontario Grade 10 Career Studies (GLC20) course.

## Aviation and Technology

Grades 9 to 11 / Secondary Cycles 1 and 2

Tour

September through June

Duration: 90 minutes

\$5 per student

During this tour, your students will handle the materials used to build the aircraft they visit. They will be able to feel the lightness of bamboo and examine honeycomb structures up close, helping them to better understand why and how these materials work. Students will also discuss changes in aviation technology over time, and will explore ways of reducing aviation's environmental impact.

## Canada and the World in Flight

Grades 10 to 12 / Secondary Cycle 2

Tour

September through June

Duration: 90 minutes

\$5 per student

This tour encourages your students to ask questions, make observations, and offer their thoughts about the evolution of flying machines as a form of technology. They will discuss the use of aircraft in Canada to meet the needs of its people, and how these uses have affected the development of Canada as a nation, as well as and the role of our air force—both at home and abroad.

# Self-Guided Visits

## Solo Mission

Suitable for all grade levels

Year-Round

\$4 per student

Three unique, visual scavenger hunts are available for self-guided school groups. Students can select their level upon arrival, or can work in groups to see if they can complete all three missions before their friends do!



### I Spy: Airplane Logos Level 1: Trainee—We'll Go Easy on You

I spy with my little eye, something that is . . . a clover leaf, a black cat, a knight? Airplanes have many different images printed on them. For this mission, your students will have to become super-sleuths to find all the logos and discover what they represent.

### I Spy: Aircraft Noses Level 2: Agent—Tricky but not Too Hard

This mission takes your students from the earliest days of flight to the modern era. Their challenge? To search the museum and try to spot all the different aircraft noses. They'll have to be very observant to find them all!

### I Spy: Silhouettes Level 3: Master—Looks Easier than It Is

This scavenger hunt is for eagle-eyed spotters, able to pick out the tiniest of details. This is the toughest of all our missions, in which your students will need to match aircraft in our collection to their silhouettes. Some airplanes have only slight differences, so students will have to take their time and look very closely.

# General Information

All programs are available weekdays from September through June. The museum is closed on Tuesdays from September 3 through May 1. Some programs can be shortened to suit your requirements. All of the museum's educators are experts in adjusting program content to the needs of your class.

## Reserving a Program

These are all popular programs, and space is limited, so please be sure to book your visit well in advance. We recommend scheduling your program at least **one month** ahead of time.

There are two ways to reserve a program: School booking requests can be made using our [online form](#). You can also connect directly with our Customer Relations team.

Email: [contact@IngeniumCanada.org](mailto:contact@IngeniumCanada.org)

Phone: **613-991-3053 or 1-866-442-4416**

Confirmation of your scheduled program will be sent to you via e-mail. With the exception of self-guided tours, a representative from our Education team will contact you prior to your visit to help you prepare for your visit and to discuss the needs of your students.

### Free visit preview

Teachers are welcome to visit the museum free of charge by presenting proof of their teaching status.



## Planning Your Visit

We strongly recommend the following minimum ratios for student supervision (by adults) when visiting the museum:

Grade	Student: Adult Ratio
Kindergarten / Preschool	6:1
Grades 1 to 6 Elementary Cycles 1-3	8:1
Grades 7 to 12 Secondary Cycles 1 and 2	10:1

Please ensure the supervision of your students during free time, and during any self-guided visit. This is important to help us maintain a safe and fun environment at the museum for everyone.

**Make the most of your day with us!** We highly recommend that you schedule an **additional 90 to 120 minutes** at the museum. This will give you time to explore the museum before or after your program, watch aircraft taking off and landing (in good weather), and visit the Aeronautica Boutique.

If you plan to stay for lunch, please ask the Customer Relations Team about reserving space in the cafeteria or picnic area.

If your program includes a craft, remember to bring bags so that you can take your students' creations back to school more easily.

**Fee for Accompanying Adults:** Free

**Vehicle parking fees:** Free for buses; \$3 per hour to an \$8 daily maximum for other vehicles (same day only).

## Accessibility

The museum is committed to providing an [accessible environment](#). Please let us know if your group has any special needs upon booking, and we will be happy to talk to you about specific accommodations.

## How to Find the Museum

The Canada Aviation and Space Museum is located at 11 Aviation Parkway in Ottawa.