



# Virtual Education Programs

2022 - 2023





# VISIT THROUGH A VIRTUAL FIELD TRIP!

The Canadian Warplane Heritage Museum is proud to announce our new Virtual Field Trip program. Choose from our list of program offerings and take your students into our museum from the comfort of your home or classroom.

## THE BENEFITS OF A VIRTUAL FIELD TRIP

- Distance and e-learning: Bring the wonders of the museum and gallery to your students wherever they are
- A great opportunity to start inquiry or project-based learning
- Speak with experts in various fields: education, engineering, curator and collections
- An authentic learning experience
- Custom content delivery for your classroom needs
- Allow students to develop critical questioning skills
- Promote collaboration opportunities between students and educators worldwide
- Our flexible scheduling offerings to work around your planning and class times
- Cross-curriculum connections: STEM, Science & Technology, Language Arts, Social Studies, Transportation
- Elementary to Post-Secondary programs available
- Various platforms: Google Meet, Zoom, Skype, WebX - let us know what you are using and we will do our best to accommodate your tech needs
- No busing costs or permission forms



## PROGRAM

Our Educational Programming is always growing and adapting to the needs of our participants. In anticipation of continued e-learning/distance education, we will work with you to provide the best fit of curricular content. With a focus on Science and History, from Theory of Flight to our Wartime Experience, explore our list of program offerings and contact us for inquiries on adapting to your classes' diverse needs.

No matter the distance, your students can interact with our educators and experts to explore topics such as Properties of Air, Theory of Flight, Aircraft Construction, and World War II Canadian History.

These programs can be adapted for elementary, secondary, post-secondary and adult interest groups.

Program Length: 30 - 45 minutes

Maximum Participants: 30

Cost: \$150

**Book Online at <https://www.warplane.com/education/virtual-field-trip.aspx>**

For further information, contact Christine Stevenson at [edserv@warplane.com](mailto:edserv@warplane.com), 905-679-4183 ext. 222

**No recording of our sessions is permitted.**



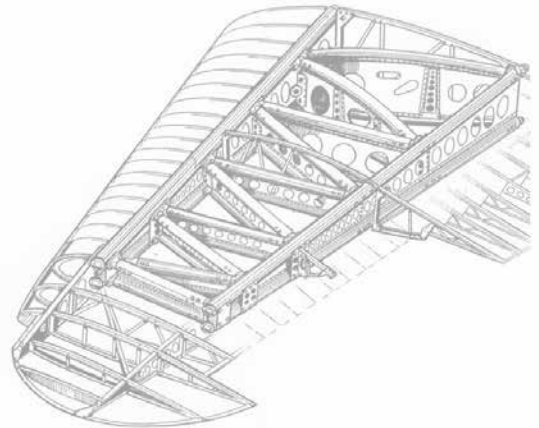
# PROGRAM OPTIONS

## RIBS 'N' WINGS (Primary)

### SCIENCE

A live-45 minute instructional presentation on the how things move and the materials we use to build structures. The content presented can be used as a starting point of a unit on simple machines or structures, or a consolidation of the learning done in class. Through live questioning, students will engage with our instructors as they cover such topics as:

- Simple Machines (e.g. cables/pulleys, wheel and axle) **P, D**
- Material choices for structures (with a focus on airplane structures) **P, D**
- Forces (compression, tension) **P, D**
- Aircraft structures (wings, fuselage, empennage and more!) **P, D, A**
- Hangar Tour (A tour of our aircraft hangar with a focus on structure, materials and forces acting on aircraft) **P, A**



Live demonstrations (**D**) will be used to reinforce the concepts discussed and authentic aircraft (**A**) throughout the hangar will be explored with a focus on material use, structure and forces acting on them.

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## FLIGHT (Junior/Intermediate)

### SCIENCE, SOCIAL STUDIES

A live-45 minute instructional presentation on the properties of air and theory of flight. The content presented can be used as a starting point of a unit on flight or a consolidation of the learning done in class. Through live questioning, students will engage with our instructors as they cover such topics as:

- The properties of Air (e.g. Takes up space, has mass, exerts pressure etc.) **P, D**
- Bernoulli's Principle (Changes in air pressure) **P, D**
- Forces of Flight (Thrust, Drag, Lift, Weight) **P, D**
- Aircraft control surfaces (aileron, rudder, elevator) **P, D, A**
- Hangar Tour (A tour of our aircraft hangar with a focus on design, shape, use and control surfaces of aircraft) **P, A**

Live demonstrations (**D**) will be used to reinforce the concepts discussed and authentic aircraft (**A**) throughout the hangar will be explored with a focus on the design, shape, use and control surfaces that allow them to take flight.

**P** - Presentation

**D** - Demonstration

**A** - Aircraft Featured

**AT** - Artifacts Featured



# PROGRAM OPTIONS

## FRAMES AND FORCES (Junior/Intermediate)

### SCIENCE

A live-45 minute instructional presentation on the relationship between the design and function of structures and the forces that act on them. The content presented can be used as a starting point of a unit on forces and structures, or a consolidation of the learning done in class. Through live questioning, students will engage with our instructors as they cover such topics as:

- Material choices for structures (with a focus on airplane structures) **P, D**
- Forces (compression, tension, torsion, shear) **P, D**
- Aircraft structures (wings, fuselage, empennage and more!) **P, D, A**
- Hangar Tour (A tour of our aircraft hangar with a focus on structure, materials and forces acting on aircraft) **P, A**

Live demonstrations (**D**) will be used to reinforce the concepts discussed and authentic aircraft (**A**) throughout the hangar will be explored with a focus on material use, structure and forces acting on them..

## A WARTIME EXPERIENCE (Junior/Intermediate/Senior)

### SCIENCE, SOCIAL STUDIES, HISTORY

A live-45 minute instructional presentation on the experiences of the people in Canada and Britain during World War II. The content presented can be used as a starting point of a unit on World War II history or a consolidation of the learning done in class. Through live questioning, students will engage with our instructors as they cover such topics as:

- Aviator Attire (World War II Fighter and bomber pilot gear) **P, D, AT**
- The Battle of Britain (Full size Operations room map, visits to Spitfire and Hurricane aircraft.) **P, D, A**
- Metal Work (Aircraft construction, metal, wood, fabric materials) **P, D**
- Rationing (Rationing and Food shortages of the 1940's, explanations on food alternatives from our pantry.) **P, D**
- Evacuation (The Blitz, bomb shelters and evacuation of children from Britain) **P**
- Codes & Ciphers (The use of Morse Code, encoding/decoding of messages, Bletchley Park and the secrets of the Enigma machine) **P, D, AT**
- BCATP (The British Commonwealth Air Training Plan, aircrew training in Canada in the 1940's) **P, A, AT**
- Hangar Tour (Stories of Canadian aircrews connected to aircraft within our hangar are explored) **P, A**
- Custom Topics (Possible combination of topics or special requests, please contact for details) **P, D, A, AT**

Live demonstrations (**D**) will be used where specified to reinforce the topics discussed and authentic aircraft (**A**) throughout the hangar will be explored with a focus on the aircrews who flew them during World War II.

**Note:** Not all topics can be covered in one 45 minute session – teachers/participants are encouraged to select one topic.



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