

EDUCATION PROGRAMS 2017-2018



NEW MUSEUM CLASS

DRONES: A FLIGHT TO THE FUTURE



PRESENTS

Cradle of Aviation Museum
and Education Center



516-572-4066 • www.cradleofaviation.org

Take your class on a trip they'll never forget... to the Cradle of Aviation Museum.

Walk through the history of flight while also walking through the rich history of our region. Explore the past while also exploring what the future can hold.

Now in our 15th year, thousands of school groups have been captivated by their experience at the Cradle of Aviation. Your students will be exposed to eye-opening experiences that fit perfectly into their curriculum.

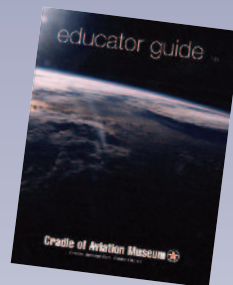
Your students will walk away with a rewarding experience that combines the educational discipline you need in an entertaining way through guided museum classes, live Dome programs, giant screen films and our Aerospace Quest. Each of our eight museum galleries will deliver a "WOW" experience as students travel through time with over 75 air and space craft from hot air balloons and kites to jet aircraft and an actual lunar module on the moon.

Between the Exhibit Galleries, JetBlue Sky Theater Planetarium and National Geographic Dome Theater, a visit to the Cradle of Aviation Museum is an exciting and educational field trip, that's right in your own backyard.

See why we say this is
"Not your ordinary school trip."

FREE Educator Guide

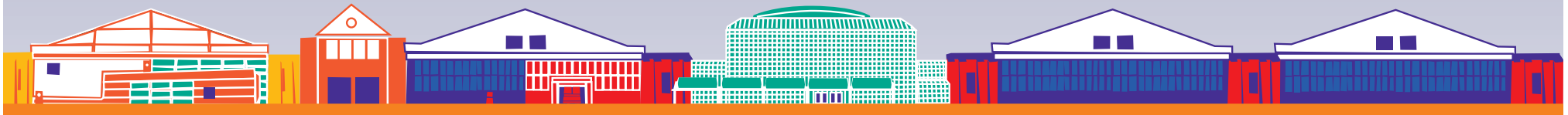
Thanks to a New York State Council on the Arts grant, you can now visit cradleofaviation.org/education and download our 40 page educator guide.



Plan Your Trip

Museum Classes	4
Outreach Programs	6
Competitions	7
Professional Development	7
Live Dome Programs	8
Dome Theater Films	9
Schedule a Visit	10
Directions & Contact Information	11
Retro Video Game Exhibit & Carousel	12

To make a reservation please call (516) 572-4066



New! Drones: A Flight to the Future 30 minutes, grades 4-8

From home delivery and journalism, to disaster management and wildlife monitoring, “drones” aka UAV’s (unmanned aerial vehicles) are taking over the skies. But how did they get their start? How exactly do they work? What else are they used for? Throughout the class, students will be propelled towards the future after learning all about the next step in aerospace engineering! They will explore the history of drones and means in which society utilizes them, discover how drones require computer programming knowledge, and even experiment flying a drone.

Biotech in Space 50 minutes, grades 5 – 9

As astronauts travel further into space concerns about how they will maintain their health arise. Long-term exposure to radiation can affect their DNA. In this program, students will unlock a key needed for deep space exploration and learn about the process of DNA extraction through experimentation.

Tech...Under Construction 30 minutes, grades 4 – 8

Throughout the technology industry change is happening every day. For students to become a part of this revolution they will need to understand how technology works... “under the hood.” Using hands-on activities, students will learn the components of the technology industry from hydraulics to circuits uncovering the essentials to constructing robotics, rovers, drones, and more!

Bot Building 50 minutes, grades 4 – 9

Robotics play an integral role in engineering our futures. From factories to outer space, robots contribute to our society every day, performing jobs people may not be capable of doing. But who builds and creates these “intelligent” machines? Using Lego® NXT Robotics Kits, student teams will be introduced to robotics in an exciting hands-on format, learning the engineering design process and exploring what it is like to be an engineer!

Physics of Toys 30 minutes, grades 2 – 9

Yo-yos, balloons, and slinkies may be found in any kid's closet, but they probably don't realize that they can learn science from them. Students will use common toys to explore inertia, kinetic energy, laws of motion, and many more physics principles in this fun hands-on class.

iRobot 30 minutes, grades 2 – 8

You might be familiar with androids in Star Wars, Star Trek or even the Terminator. However, modeling and engineering robots after humans in the real world is extremely challenging because of the complex systems humans use to do tasks. Using hands-on activities students will compare and determine the essentials needed to engineer a robot like a human while creating excitement about science, technology, and engineering.

- ➡ September-October save \$2.00 per student on museum/theater combo tickets!
- ➡ December-January visits receive a FREE 30 minute museum class!

Living in Space 30 minutes, All grade levels

There are many things one needs to know before venturing up into space...like how does one go to the bathroom? The most common and practical questions will be answered on what life is like in space. Students will discover where to sleep, what kind of food is available, what astronauts wear and what some hazards are. Some students will even get to try on a space suit!

Kites! 30 minutes grades 1 – 3

3000 years ago the Chinese invented kites and today most of us have attempted to fly one. Learn how kites were precursors to airplanes and build your own kite.

Force and Motion 30 minutes, grades 4 – 12

Experience Isaac Newton in a whole new way! Students will pull, knock and twist their way into a better understanding of Newton's laws of motion through fun, engaging experiments. They will not only have a better appreciation for his laws, but students will never look at their world the same way again. Experiments include pulling a table cloth from under dishes and racing against other students in our Third Law Challenge!

Weather to Fly By 30 minutes, grades 3 – 8

What is something that each and every one of us, including animals and plants, has to deal with everyday, all year long? Yes it is weather! Find out about basic weather patterns, where weather can be found, its effects on aircraft and the ingredients you need to conjure up some destructive forces!

Rockets Away! 30 minutes, grades 4 – 12

Rocketry is an important development in modern day science and technology. This program will guide students through historic milestones leading to some of the current uses of rockets. Demonstrations of basic rockets will be included.

Fly By Math 50 minutes, grades 4 – 9

This math program puts students' skills to the ultimate test - can they safely direct air traffic? Recreating the intense atmosphere of air traffic control centers, it's up to the students to see if they need to change the plane's direction or speed by putting their math skills to use in these real world situations.

How Does It Fly? 30 minutes, grades 1 – 8

What are lift, thrust and drag? These are just a few of the concepts explored in this program that features hands-on demonstrations covering the history of air travel. Explanations of how flight is accomplished will provide insight into the scientific principles of flight.

Guided Tour: Highlights of Long Island Aviation 50 minutes, All grade levels

From ballooning to the Moon...an evolution of aviation, all in under an hour. This museum educator-led program will take your group through the museum's collections focusing upon major events and aircraft in aviation history. Inquiry based learning will help students interpret the history of aviation on Long Island according to the age level and needs of each group.

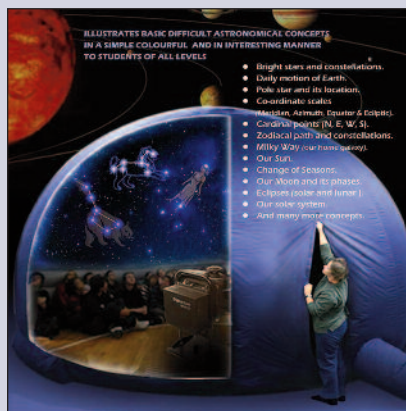
All classes comply with national and state standards.

Outreach Programs

Museum Outreach - We Come to You!

Choose from any of our Museum Classes to make learning come alive for children and adults in a variety of settings from schools, libraries, camps, scout meetings to community centers. Led by museum educators, all programs use hands on demos to promote the museum's philosophy of inspiring and educating while entertaining.

Choose from any of our museum classes:



Drones: Flight to the Future *grades 4–8*
Biotech in Space *grades 5–9*
Tech Under Construction *grades 4–8*
Bot Building *grades 4–9*
Physics of Toys *grades 2–9*
iRobot *grades 2–8*
Living in Space *All grade levels*
Kites! *grades 1–3*
Force and Motion *grades 4–12*
Weather to Fly By *grades 3–8*
Rockets Away! *grades 4–12*
Fly By Math *grades 4–9*
How Does It Fly? *grades 1–8*

Digitalis Digitarium - Portable Inflatable Planetarium!

Digitalis is a portable, inflatable planetarium dome that can accommodate up to 30 students per class session. Once inside the dome, discover the majesty of the stars and our universe with its digital technology designed to showcase bright, clear images. The Digitalis dome has a stand-up entrance permitting easy entry for students and teachers, offers interactive learning opportunities and is best suited for your gym or auditorium.

Nassau County Outreach Pricing

Base 45 Minute Program\$350.00
 Base 45 Minute Digitarium Planetarium Program\$500.00
 Additional 45 Minute Same-Day Programs.....\$50.00

Please call for outreach pricing in Suffolk, Queens and Kings counties.

Outreach programs for schools are age appropriate and designed to address New York State Learning Standards. To find out more, book a program, or even create customized activities call (516) 572-4029.

Competitions & Professional Development

Annual Competitions - Free with Museum Admission

We are pleased to host a growing list of competitions for young people from across Long Island to participate in.



2017-2018 Competitions

KidWind Challenge - October 18*
 Machine Madness - February 3
 Newton's Egg Drop - March 7
 CAM Drones for Good - March 24*
 MagLev Contest - March 26*
 Junior Solar Sprint - June 11*

See website for competition details!

*Complimentary professional development workshops available, see below.

Free Previews for Teachers

If you would like to see what we offer for programs, preview a theater show or to just take a look around, do not hesitate to call! Teacher screenings and sneak peeks are free here at the Cradle. You can even have your staff come for a day of Professional Development where we will create a schedule for you to sample a little bit of everything. Reservations are required. Please call (516) 572-4066.

Free 2017-2018 CTLE Certified Teacher Workshops

KidWind Challenge Workshop - September 27

Project ASTRO - October 3

- Teachers are pre-selected and must apply for this year-long astronomer partnership

Biotech Day - November 7

CAM Drones for Good - November 18

Navigation - December 6

Working the Problem - January 29

Junior Solar Sprint Workshop - April 10

Courage Takes Flight - June 7

In addition to these offerings, we would be thrilled to design a professional development program for you, your school or your district based on your curriculum. For rates on a custom professional development program, please contact Catherine Bingham at 516-572-4028.



Digistar6 advanced computer graphics technology for digital planetariums provides an immersive dome experience.

Live DOME Programs

NEW - Space News & Asteroids - 50 minutes, grades 3 – 12

Explore different topics happening in science and astronomy right now. After hearing the latest Space News, sit back and enjoy Asteroid: Mission Extreme. This movie takes audiences on an epic journey to discover the possibilities that asteroids present for space travel. Using stunning visuals and state-of-the-art computer graphics, the film presents the fascinating idea, based on real science, that asteroids could be used as stepping stones to other worlds, veritable "way stations" in space enabling us to cross the entire solar system.

Junior Jetsetters & One World, One Sky - 50 minutes, grades pre-k – 1st grade

The night sky is what led humans long ago to wonder what is beyond Earth. Spark your students' curiosity with an introduction to astronomy. Students will look at constellations, hear stories, and practice being an astronaut all while learning astronomy vocabulary. Then, explore the night sky with your favorite friends from Sesame Street in One World, One Sky: Big Bird's Adventure. Follow along with Big Bird, Elmo and their friend from China, Hu Hu Zhu, as they take you on a journey of discovery to learn about the Big Dipper, the North Star, the Sun and the Moon. *Pair with museum class: Living In Space*

Astrobiology - 50 minutes, grades 3 – 12

Put your imagination and science to the test! In this live program, students will explore astrobiology, the study of all life in the universe. They will take what they know of Earth's atmosphere, environment, and its place in the Solar System and using that knowledge, compare it to new exoplanets found in the Universe! *Pair with museum class: Biotech*

Infinite Light - 50 minutes, grades 6 – 12

Ever wonder why the sky is blue? The simple answer is light! During the show, students will gain a better understanding of visible and invisible light, how it works and how astronomers study space!

Solar System Tour - 50 minutes, all grade levels

Our Solar System has everything you could want! Planets! Moons! Asteroids! and Comets! All swirling around our one and only star, the Sun. Students will learn all the different objects that populate the Solar System and get a glimpse at the force that keeps worlds spinning. *Pair with museum classes: Living In Space, Force and Motion, Eyes on Earth, Rockets Away*

To the Moon! - 50 minutes, grades 1 – 8

The Moon lights up our nights but how much do you really know about our night-time neighbor? During this show, students will get their hands on the Moon, see its many phases, learn about its features, and investigate the dark side.

Pair with museum classes: Living In Space, Force and Motion

Current Night Sky - 50 minutes, all grade levels, Boy & Girl Scouts

Long before television, GPS, and street lights there were the stars of the night sky. Students will travel through the seasonal night sky to learn about constellations, hear mythical stories, and observe the magnificent Long Island sky.

Pair with museum class: Living In Space

jetBlue
SKY THEATER
PLANETARIUM

*Get your suitcase ready and
join us on an interactive adventure
through the universe!*

*Journey beyond the Earth and into the sky
LIVE with our educators!*

NATIONAL
GEOGRAPHIC
LEROY R. & ROSE W. GRUMMAN
DOME THEATER

FILMS

Living in the Age of Airplanes
Mysteries of the Unseen World
Journey to Space
Space Junk

Our full dome theater is a
large-scale immersive environment,
featuring real-time digital planetarium,
visualization and simulation space
and large-format cinema.



Films available from our library:
(group minimums apply)

Air Racers, Back to the Moon,
Lewis and Clark
One World, One Sky: Big Bird's Adventure
Shackleton, Sea Monsters and Sunstruck.

Schedule a Visit

Please call reservations, Mon.-Fri, 9:30-4:00 at (516) 572-4066

Booking - The following information is needed when booking.

- Date of visit
- Arrival and departure times
- Number of visitors including both children and adults
- Grade(s) of school group
- Chosen options
- Contact details
- Lunch requirements: purchase special box lunch or bring you own.

Arrival

- Please arrive on time and leave book bags on the bus
- Lunches will be collected and held until lunch time
- Review museum schedule
- Before disembarking your group, please check in at the Box Office
- If you should come late, rescheduling dome show times and educational programs are contingent upon ticket and educator availability.

Requirements

- Supervision requirements is no less that one adult per ten children
- 24 hour notice is required for reservation adjustments
- Adult chaperones are responsible for keeping their groups together and maintaining order
- NO FOOD, DRINK, GUM or BACKPACKS are permitted in the museum

School Group Rates

Museum	Theater Show	Museum & Theater or Game Exhibit	Museum Classes (30 min.)	Museum Classes (50 min.)	Nunley’s Carousel	Retro Video Game Exhibit
\$6.50	\$7.00	\$11.50	\$1.00	\$2.00	\$1.50	\$6.00

- We accept cash, checks made payable to the Cradle of Aviation Museum, Master Card, Visa and AMEX.
- Payments must be made two weeks prior to date of visit
- We reserve the right to cancel your reservation if payment is not made and a representative can not be contacted
- NO REFUNDS will be given if your group numbers decrease the day of your visit

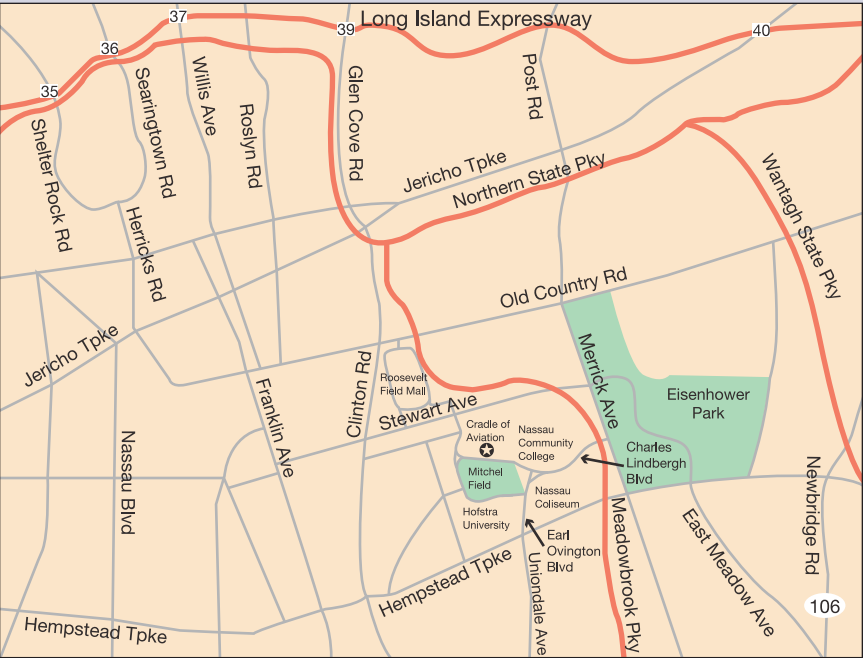
SPECIAL DISCOUNTS DURING OFF-PEAK PERIODS!

- > September and October – save \$2.00 per student on a museum ticket when combined with a theater ticket purchase.
- > December and January – receive a FREE 30 minute class with your visit!

For field trip funding opportunities, visit www.cradleofaviation.org/education.

Directions & Contact Info

Directions for Buses: Long Island Expressway, exit 39S, Glen Cove Road South. Glen Cove Road turns into Clinton Avenue. when you cross Old Country Road. Make a left onto Stewart Avenue. Take Stewart until you reach Eisenhower Park and make a right onto Merrick Avenue. On Merrick make a right at the first light onto Charles Lindbergh Blvd. Go two traffic lights on Charles Lindbergh and make a right into our parking lot. The entrance is the glass fronted Reckson Center building.



Hours:
Monday: Open for Groups (Min. 100)
Tuesday–Sunday: 9:30–5:00

Address:
Cradle of Aviation Museum
Charles Lindbergh Blvd.
Garden City, NY 11530

More info at www.cradleofaviation.org
Join the conversation at facebook.com/cradleofaviation

Reservations:
(516) 572-4066

Reservations Fax:
(516) 572-4065

FREE 1-Year Memberships for Educators

Benefits include FREE admission to museum galleries for up to six people and much more. Previous educator members renew at a deep discount.

To take advantage of this offer, simply fill out our short online survey designed to help us understand how better to serve you.

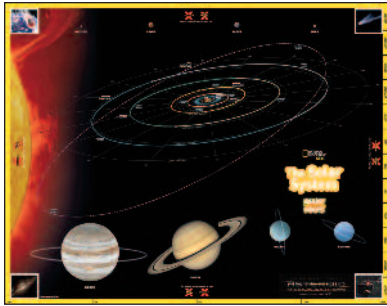
Go to: <http://bit.ly/Edu-Member-2017>

Elementary STEM Partnerships at the Cradle!

The Cradle of Aviation Museum has developed innovative partnerships with school districts to help get students excited about STEM (Science, Technology, Engineering and Mathematics) learning. These STEM partnerships allow students to explore relevant and current challenges in STEM through hands-on, inquiry based learning.

Please contact us at 516-572-4033 for more information.

National Geographic's Giant Traveling Map



For a limited time this winter and spring we'll have Nat Geo's Giant Traveling Map and be offering three fun 30 minute classes: *How Many Moons*, *Race to the Planets* and *Planet Features Revealed!* These classes pair perfectly with *Asteroid: Mission Extreme* and *Solar System Tour* dome theater planetarium shows.

Please visit our website for details or call 516-572-4066 (M-F, 10-4)

Great Add-ons to Enhance Your Visit!



Retro Video Game Exhibit

Learn the History, Play the Games!

From the Arcade to the Living Room explores the evolution of video game technology through exhibits and game play. Come explore the progression of video games, their characters and the companies that became household names.



Nunley's Historic Carousel

Over 100 years old beautifully restored!

Built in 1912, the 40 horse carousel entertained generations of Long Islanders in its Baldwin home for over 50 years. Nassau County has put a tremendous amount of resources to not only restore the carousel but also build its beautiful new home.