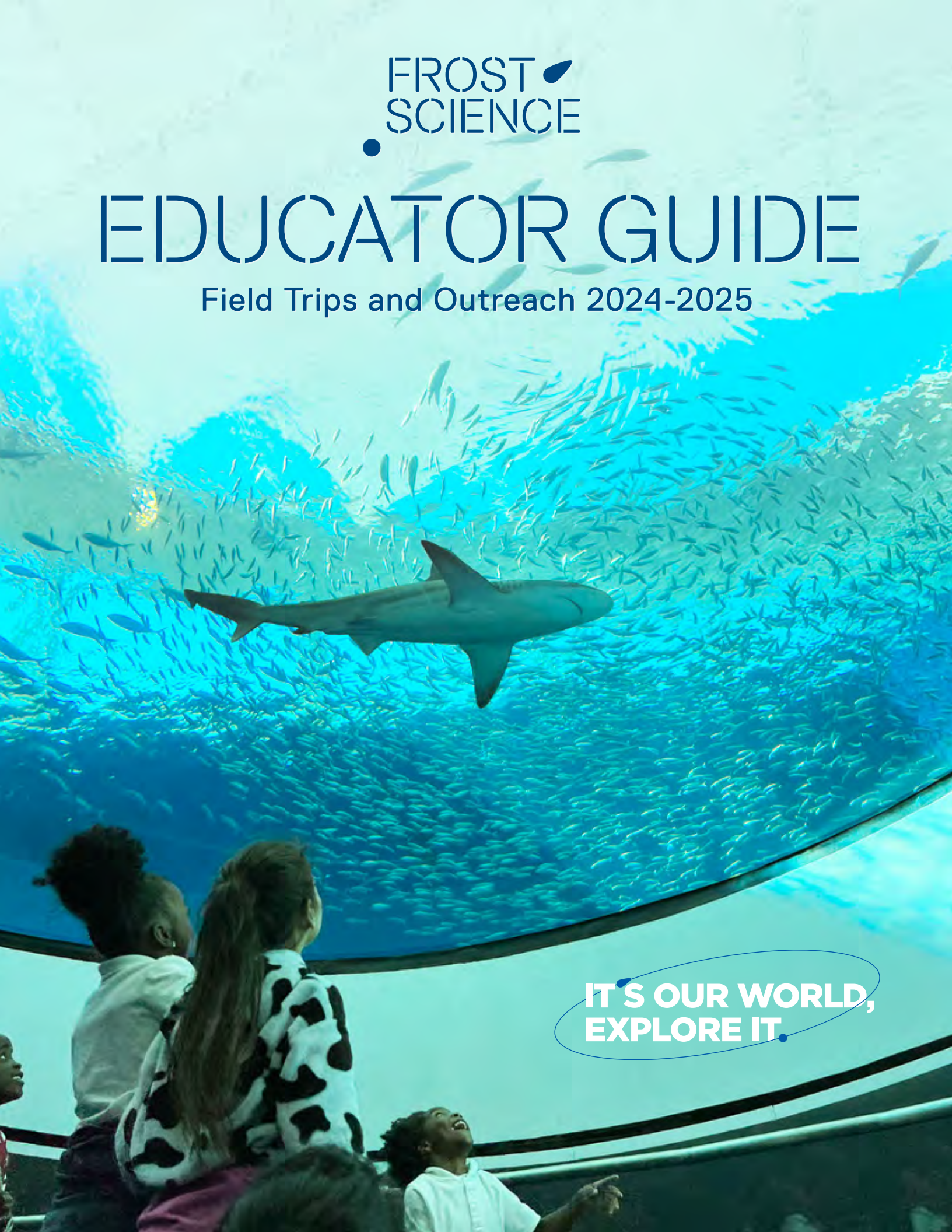


EDUCATOR GUIDE

Field Trips and Outreach 2024-2025



**IT'S OUR WORLD,
EXPLORE IT.**

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Welcome Letter

Dear Educators,

On behalf of the Phillip and Patricia Frost Museum of Science (Frost Science), we deeply appreciate your work as educators and are committed to supporting your efforts by providing opportunities that help students develop a passion for science. Museum experiences spark curiosity, making science fun and engaging while reinforcing classroom learning. We invite you to join us to inspire your students to explore their world.

At Frost Science, we are dedicated to creating a powerful impact through meaningful educational interactions. There are numerous opportunities for these interactions throughout the museum, from exploring the universe in the Frost Planetarium to observing sharks in the Aquarium, interacting with exhibits about flight and human health, and participating in our expert-led Learning Labs. We host exciting special exhibitions, such as the visually mesmerizing *Bugs*, opening in November 2024. If visiting the museum is a challenge, we also offer outreach opportunities where we bring the museum to your school. We also provide opportunities for discovery and inquiry-based learning that fit the rapidly changing needs of your school or organization.

This year, we are providing more opportunities for Title I schools to visit the museum. We are collaborating with Miami-Dade County Public Schools to support museum visits by covering bus costs and field trip admission for select Title I schools. We are also continuing our STEM Designation program to enhance your school's science engagement in partnership with the museum. Additionally, we are introducing our first ever Frost Science STEM Challenge, which engages middle and high school students and teachers in STEM-focused investigations. You can learn about all these opportunities in this guide.

We look forward to seeing you at Frost Science this year!



Dr. Doug Roberts
President & CEO
Phillip and Patricia Frost Museum of Science



Field Trips @ Frost Science

Bring science lessons to life through inclusive educational experiences with Frost Science.

Field trip admission ranges from \$14.95-\$16.95 depending on the day of the week and season. Please look at our 2024-2025 Field Trip Admission Calendar on page 5 to check the admission cost for the day you're interested in visiting.

Learning Labs (weekdays only) and **Frost Planetarium Shows** are available as add-ons from August 19 – May 16. Learning Labs are \$5 per student. Frost Planetarium shows are \$2 per student.

*All prices are per student. Please note that the museum requires a ratio of 1 chaperone per every 10 students. These chaperones are free of charge. Additional chaperones pay the same rate as the students. Frost Science membership or other discounts may not be used in conjunction with field trip and group rates. For questions regarding special needs groups, email fieldtrips@frostsience.org.

Please see the field trip FAQ for more information at frostsience.org/fieldtrips.



Field Trip Costs Per Day

\$14.95

\$15.95

\$16.95



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Planetarium shows: \$2.00/student | Learning Labs: \$5.00/student



Learning Labs

You and your students can dive deeper into science with a 45-minute facilitated, hands-on learning experience in our Knight Learning Center. Led by a museum educator, topics include marine science, earth science, space and engineering with standards-aligned options for grades Pre-K through 12th grade. Learning Labs are available throughout the academic year, subject to availability. At least one chaperone must remain with the group at all times.

**Please check with your reservation representative if you are interested in adding a Learning Lab and/or a Frost Planetarium show.*

Pre – K

Sea Life Sorting

Students will sort, classify and compare shells in this ocean and coastal-themed experience that celebrates the biodiversity of life on Earth. Hands-on activities will teach students how to observe, investigate and categorize our diverse mollusk shell collection of rare finds and Florida favorites. Students will learn to recognize the similarities and differences in shapes, colors and sizes, and match sea creatures' adaptations with their environments and habitats.



Grades K – 2

Crocogators

Young biologists will sink their teeth into the world of some of the oldest animals on Earth: crocodiles, alligators, caimans and gharials! Students will go on a journey that follows the evolution of these remarkable reptiles while exploring their unique adaptations through engaging activities, including a special viewing of both crocodile and alligator skulls from our museum’s collection. Students will complete their day by comparing the physical features of alligators and crocodiles and making a take-home face mask of their favorite reptile.

Night and Day

Students will blast off into outer space to explore the key components of our planet, including our star, the Sun, and our natural satellite, the Moon. A facilitator will guide students in discovering the key roles the Sun and Moon play in the repeating patterns that make day and night. Students will then explore how the positions and rotations of the planet help to create the four seasons. Students will put together a planetary orbital model with a special focus on the positioning between the Sun, Moon and Earth to uncover how these celestial bodies create solar and lunar eclipses.

Wind Tunnel Design

Students will apply their engineering skills to make machines go higher, further and faster. Using a variety of materials—including everyday objects—they’ll be encouraged to create their own flying contraptions and to test them out in our own vertical wind tunnel. Their designs will go through different challenges, all encouraging design readjustments and trial and error—an important part of the engineering process.

Grades 3 – 5

Junior Paleontologist Lab

Discover what our planet looked like millions of years before humans walked the Earth. Students will learn about fossils and what they can tell us about Earth’s history with a chance to view Frost Science’s fossil collection up close. Students will also step into the role of junior paleontologist by participating in a mini-dig, where they will uncover what is like to make a new discovery from mapping out their site to identifying their findings.





Building the Future

Students will let their creativity flow as they become the next generation of problem solvers by exploring the fundamentals of engineering. This hands-on introduction to the engineering design process will encourage creative thinking, team work and perseverance while students tackle a bridge-building challenge. Teams will plan, build and test their designs to respond to weight and length demands, and then modify their designs to create the ultimate bridge.

Fingerprints of Light

Students will have the opportunity to jump into an astrophysicist's shoes as they study how light's properties and behavior are applied to astronomy and human space exploration. Students will use tools like color filters, diffraction gratings, and colorful spectrum gas tubes to note how gases emit light and have their own unique light pattern or "fingerprint." Finally, students will analyze the light spectrums of different planets to determine which one to explore.

Motion of the Ocean

Students will learn about ocean currents, the constantly moving, interconnected energy system powered by forces that play a key role on our planet. Drawing inspiration from a real-life serendipitous experiment with rubber ducky drifters, students will engage with a hands-on simulation model to observe how wind and landmasses affect movement for surface currents and plot data of paths taken as they monitor a drifter. They will then be introduced to how new technology can further aid science research by checking in on ocean drifters' tracks as part of the Global Ocean Observing System and applying their new knowledge to predict future tracks.

Grades 6 – 8

Power of Hydration

Students will discover what their bodies need to be healthy through an investigation of hydration and human anatomy, and answer questions about how the food and drinks they consume influence the way their bodies function.

Earth Formations

Students will investigate the geophysical phenomenon of tectonic plates and how they have continuously changed the surface of our planet, from Pangea to modern Earth. Using various props and puzzles, they will learn how to interpret tectonic movement with maps, collect scientific data and make predictions about the future of Earth's topography. As they uncover the different layers of the Earth, they will also have the opportunity to observe and categorize pieces of the museum's rock and mineral collection, and use tools to view them up-close. Students will identify patterns within the rock cycle and how weathering and erosion play a part in their formation.

Squid Dissection

Students will dive into a slimy (and sometimes smelly!) dissection that investigates the biology of one of the earth's most highly developed invertebrates: squid. Students will examine and identify the unique features and adaptations these mollusks have developed over time to help them survive. They'll also analyze the role of squids in the marine food web along with the characteristics they share with their mollusk relatives. Don't worry, the smell comes off with a little soap and water—but the memory lasts forever!

Grades 9 – 12

Forensic Science

From matching fingerprints to analyzing ink samples using chromatography, students will step into the roles of forensic scientists. Students will learn the importance of careful observations while working through different stations as they analyze different types of evidence. Students will use the same tools as the experts as they use the evidence given to draw conclusions like real forensic scientists. Afterwards, they will present their findings and have a conversation about the next steps that would be taken in a real lab.

Water Quality Testing

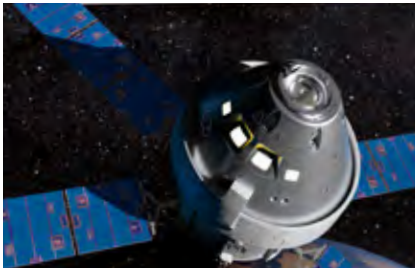
Students will dive into water chemistry by analyzing the temperature, acidity, salinity and nutrient balance from various water sources—including our own Aquarium. As they gather results, students will make inferences on what they mean for an aquatic system, especially for aquatic creatures to live and thrive. As they conclude their lesson, they will review real-life studies that are responding to the changing climate and pollution, including research at Frost Science that is focused on increasing the heat tolerance of corals as ocean temperatures rise.



Frost Planetarium Shows

A Frost Planetarium show allows students to explore the world and universe through a state-of-the-art experience in an awe-inspiring venue. For more information about current shows, please visit frostsscience.org/planetarium.

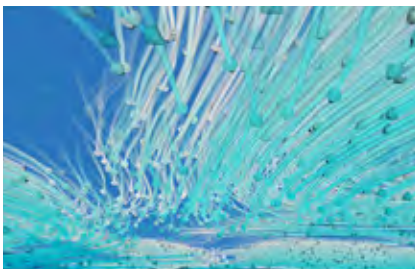
Please note that shows are filled on a first-come, first-served basis. Check with your reservation representative if you are interested in adding a planetarium show. Shows are subject to change.



FORWARD! To the Moon

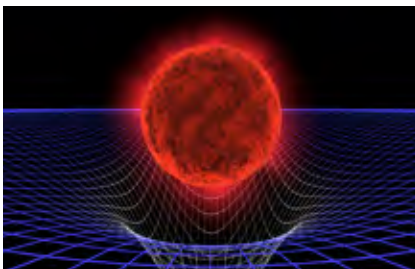
Journey beyond the Earth towards a sustainable future in space with Crash Test World and MythBusters host, Kari Byron in this exciting dome production. NASA's 21st century Artemis program, is the next step in our mission to explore the universe and land the first woman and person of color on the surface of the Moon. While guests of all ages are welcome, this is show designed for children ages 5-14 and families. (26 minutes)

Produced by Fiske Planetarium in collaboration with TEND Studio with funding from NASA SSERVI and Lockheed Martin.



Dynamic Earth

Narrated by actor Liam Neeson, you'll ride along on swirling ocean and wind currents, dive into the heart of a monster hurricane, come face-to-face with sharks and gigantic whales, and fly into roiling volcanoes as you explore the inner workings of the Earth's climate system.



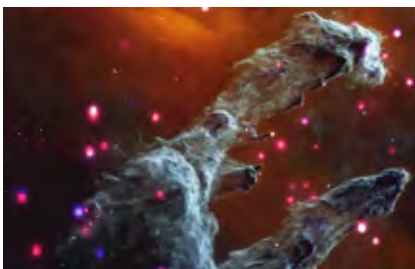
Black Holes: The Other Side of Infinity

Narrated by actor Liam Neeson, the production features high-resolution visualizations of cosmic phenomena and data generated by supercomputer simulations to bring the current science of black holes to the dome screen. The show provides a groundbreaking, scientifically accurate perspective on black holes and presents the latest compelling evidence of their role in the universe.



One Sky

One Sky is a collection of beautiful short films about constellations, astronomical instruments and scientific knowledge from various cultures around the world. Each chapter is presented in an original and engaging way with its own style, featuring the work of international artists. (25 minutes)



Frost Science Presents...

Frost Planetarium offers an ever-evolving series of live, full-dome presentations, showcasing a spectacular rotation of science themes each season. Immerse yourself in a cosmic journey as we explore the wonders of space, delve into the mysteries of the deep ocean, and unravel the secrets of Earth's ancient past. Each presentation is a unique, interactive experience, blending unique visuals with engaging storytelling, designed to captivate and inspire audiences of all ages. Join us under the dome for an exploration of science, where every visit is a new adventure into the unknown. (30 minutes)

Educator Opportunities

Frost Science hosts various professional development opportunities to assist you in your science teaching. By using informal science practices, such as those used in a science museum, we provide opportunities for you to connect your students to real-world research through hands-on investigations and inquiry-based learning. Please check our website for more opportunities throughout the school year.

Date	Program/Topic	Requirements
10/3/24	STEM Designation	Be identified through M-DCPS
3/31/25	Dream in Green	All Teachers!

Check our website and calendar of events for registration information. Contact education@frostsscience.org for more information.





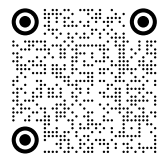
Title I Opportunities

During the 2024 – 2025 academic year, we are providing opportunities for Title I schools to visit the museum and participate in Learning Labs at no cost.

FREE Title I Field Trips (all grades)

All Title I schools in Miami-Dade County may apply for a free field trip to the museum.* Fill out our Community Access Request Form to sign up or email fieldtrips@frostsscience.org.

* This opportunity does not include bus transportation.



Receive Your School's STEM Designation with Us!

Teachers and students will dive into science with Frost Science during the 2024-2025 academic year. Through continuous engagement with the museum, 3rd-5th grade classes will receive Miami-Dade County Public Schools (M-DPCS) STEM designation and participate in meaningful science experiences.

How do I sign up? Schools will be identified through M-DCPS. If you have not been identified but are interested, please contact education@frostsscience.org.



Frost Science is kicking off the first-ever **STEM Challenge** for middle and high school students in Miami-Dade County and surrounding areas. Students enrolled in the challenge will use the engineering design process to create new and innovative solutions to some of the problems scientists are currently trying to solve—and compete for scholarships along the way.

While traditional science fairs require students to come up with their own questions to investigate and test, all students participating in the **STEM Challenge** will investigate one of four pre-defined problems relating to one of Frost Science’s core disciplines: marine science, health, paleontology, and astronomy. Students can work in a group or individually to pick a problem, develop and model a solution to it, and present their work. Even though many students might be working on the same topic, these problems are broad, and students will be able to use their unique interests, knowledge, and skillsets to derive their own creative solutions.

In April 2025, students will submit their projects for a first round of judging. Then, select students will be invited to present their projects at a special event at Frost Science on May 10, 2025. Students will be judged by experts and scientists in the marine science, health, paleontology, and astronomy fields. Winning groups and individuals will receive college scholarships covering up to four years of college!



Interested?
Register here by October 1, 2024

The STEM Challenge is generously funded by the Glenn W. Bailey Foundation.

Individual Project Winners

1 st Place	4-year Florida University Plan
2 nd Place	3-year Florida University Plan
3 rd Place	2-year Florida University Plan
Top Oral Presentation	1-year Florida University Plan
Top Model	1-year Florida University Plan

Group Project Winners

1 st Place	3-year Florida University Plan
2 nd Place	2-year Florida University Plan
3 rd Place	2-year Florida University Plan
Top Oral Presentation	1-year Florida University Plan
Top Model	1-year Florida University Plan

Junior STEM Challenge Project Winners

(Middle School, Group Only)

1 st Place	1-year Florida University Plan
2 nd Place	1-year Florida University Plan
3 rd Place	1-year Florida University Plan

Frost Science in the Community

The museum is on the move! During our outreach programs, we come to you and bring the museum with us. Our science-focused hands-on activities and demos are aligned to Florida NGSSS, promote project-based learning, and engage students in K – 12th grade in STEM. Check out our outreach offerings and contact outreach@frostsscience.org if interested.





Outreach

The Phillip and Patricia Frost Museum of Science is on the go! Outreach with Frost Science brings hands-on learning directly to schools and communities. Each experience inspires the audience to investigate our world and universe through the lens of science.

Frost Science Outreach Programs include:

- ✓ STEM-focused, NGSSS-aligned curriculum (standards available upon request, per grade)
- ✓ All hands-on activities and supplies needed for each program
- ✓ Two specially trained science educators to bring your outreach experience to life

Hands-On Activities

- ✓ \$250 for one 30-minute session | \$175 for each additional 30-minute session
- ✓ 25 participants maximum per 30-minute session

Catapult Engineering Challenge

Take flight into engineering design as your students build and test their own catapults. Students will use materials like K'Nex, cardboard and rubber bands to build a catapult, then test their device for distance and accuracy. Along the way, they'll discover the principles of engineering design and physics.

Museum on the Move: Ecosystem Engineers

Animals can be engineers too! Discover the importance of ecosystem engineers while exploring the role of mollusks in their environments. Students will play an oyster habitat building game and view different mollusk shells from the Frost Science Education Collection.

Recommended for grades 3-5

Museum on the Move: Curious Curators

Where do museums get all those things? And how do they keep it all organized? Students will explore these questions as they view items from the Frost Science Education Collection and curate their own mini natural history museum using rocks, shells, and more.

Recommended for grades K-2

Museum on the Move: Shark Bites

Sharpen your knowledge of sharks! Students will take a close-up look at shark teeth artifacts from the Frost Science Education Collection while discovering how scientists use shark teeth to gain understanding of this keystone species.

Recommended for grades 3-5

Circuitry Challenge

Learning about electrical conduction is a snap in this hands-on circuit exploration. Students will discover the basics of energy and electricity as they use problem solving skills to build circuits that glow, buzz and even move. Just be careful not to short circuit!



Geology Rocks

Dig into geology as your students learn to sort and identify rocks and minerals from the Frost Science collection. Then students will be able to conduct experiments to study magnetism and luster. Finally, they'll take on the role of backyard geologists as they learn about limestone and South Florida's unique history.

Science Shows

- ✓ \$600 per 30-minute show
- ✓ No maximum number of participants
- ✓ A stage must be available for these programs; additional shows may be added for \$550 each

Design & Create

Think you have what it takes to participate in the ultimate STEAM challenge? Join us on stage to battle it out! Using the engineering design process, you'll navigate a building task in a race against other participants.

Fire & Ice: Science Showdown

Help determine which element creates the coolest (or hottest) reaction. Watch fire experiments bring the heat, while ice experiments cool you down. Then, vote on which takes the prize for 'best in show.' *Please note, this show uses real fire.*



Demonstrations

- ✓ \$300 for one 30-minute show | Additional shows may be added for \$250 each

Power of Plasma

Join us for an out of this world exploration into the fourth state of matter. After playing a game to understand solids, liquids and gases, students will learn about the most common state of matter in the universe, plasma! Explore the role of magnetism and electricity in our universe through experiments conducted with our plasma globe. Then discover spectroscopy to take exploration to the stars and beyond.

The Chill Zone: Liquid Nitrogen

Explore physical reactions by freezing everyday objects with liquid nitrogen. Watch as balloons, flowers and other objects undergo a physical change when exposed to extremely cold temperatures (-321°F, to be exact). Make sure to stay for our grand finale as we create a simulated cloud, thunder and all!



Night Sky Telescope Viewing

✓ **\$1,000 for two hours for up to two telescopes**

Enhance a special evening event under the stars with a night sky telescope viewing*! Bring the far away beauty of celestial objects up close and experience the night sky as never before. Participants will have the opportunity to view celestial objects** in the night sky as well as learn about telescopes and astronomy.

**Night sky telescope viewings are weather permitting. No refunds or cancellations will be provided for inclement weather or poor visibility. However, if there is an appropriate location and power supply, we will provide a supplemental weather-appropriate activity when possible.*

***Celestial objects in the night sky will vary depending on the time of year and event location.*

Portable Planetarium

✓ **Starting at \$1,000 for two hours of programming**

Explore the cosmos as you step inside the Frost Science Portable Planetarium. Participants take a guided journey through the night sky and discover educational facts about our solar system and other key celestial objects that they can find when they look up at the stars. Limited to 30 students per presentation (35-person total capacity, including teachers and presenters). The indoor-only, inflatable dome can be used in auditoriums, gymnasiums, cafeterias, media centers and libraries with an uncompromised space of 20' x 20' x 20'.





FAMILY FUN FESTIVAL

SATURDAY, NOVEMBER 9TH, 2024

KNIGHT PLAZA • 11 A.M. - 4 P.M.



Join us on Saturday, November 9 from 11:00 a.m. – 4:00 p.m. for a day of exploration, where science takes center stage, and together we celebrate the joy of discovery!

Frost Science’s free Family Fun Festival provides an incredible opportunity to immerse yourself in the wonders of science. The event is held once a year as part of the museum’s ongoing commitment to fostering community engagement and access to science education.

During the festival, the vibrant outdoor Knight Plaza on the museum campus comes alive with interactive exhibits, live shows, community partners, vendors, food, and captivating entertainment, all designed to ignite curiosity and inspire a love for science.

Early Childhood Programming

Early Childhood Hands-On Science (ECHOS)

ECHOS is a hands-on, interactive early childhood science curriculum that is:

- ✓ Research-based
- ✓ Designed for small groups of preschool children
- ✓ Aligned with preschool science standards
- ✓ Scripted to facilitate guided inquiry
- ✓ A foundation for critical thinking

The overall goal of ECHOS model is to increase teachers' ability to introduce basic science concepts to preschool children through the use of a guided inquiry-based curriculum. Interested in using ECHOS curriculum in your classroom? Contact echosinfo@frostsscience.org or visit frostsscience.org/echos.



Little Atoms: Pre-K Learning with Frost Science

This outreach program is specifically geared toward early childhood science learning. This program delivers hands-on activities to daycares, libraries, and schools. Each experience is specifically designed for early learners, ages 3 to 5, to engage the senses while promoting exploration and discovery. Themes include:

- ✓ **Building Blocks:** Sort, stack and play with basic building blocks, which helps develop a child's spatial awareness.
- ✓ **Junior Docs:** Practice listening and looking while investigating the body through role-play by becoming a doctor.
- ✓ **Let's Rock:** Investigate various types of rocks and examine the science behind the hardness of rocks.
- ✓ **Music Makers:** Stimulate senses through sight, sound and touch, and engineer musical instruments of all kinds out of everyday objects and materials.
- ✓ **Spinning Spirals:** Whirling, twirling, spinning spiral patterns will be explored as we examine the science behind the shape of a hurricane.
- ✓ **Young Minds Yoga:** Practice movement that will help strengthen the body and mind.



For more information please email outreach@frostsscience.org or visit frostsscience.org/outreach.





Educator Resources

Supporting Field Trip Materials

We know educators are incredibly busy. To help you prepare for your field trip—as well as reinforce the lessons learned at the museum back in your classroom—we’ve created standards-based pre- and post-visit materials for grades Pre-K through 8 that align with each of our exhibitions. These resources include activities to use before and after your visit, and provide insight into what you can expect during a Frost Science field trip.

Standards-aligned curriculum materials can be downloaded free of charge from frostsscience.org/fieldtrips.

South Florida Educator Membership

Certified K-12 teachers of accredited public and private schools located in Miami-Dade County, Broward County, Palm Beach County and Monroe County can purchase a Frost Science Educator Membership for just \$35. Educator memberships are valid for admission for one adult cardholder year-round, plus guest privileges for select programming and exhibition previews.

Need inspiration for an upcoming Frost Science field trip? A free educator membership helps you plan an unforgettable experience for your students.

Educator Memberships at Frost Science include:*

- ✓ FREE museum general admission + one FREE Frost Planetarium show per visit for one adult cardholder
- ✓ Discounts on parking with every visit (based on availability)
- ✓ Invitations and guest privileges for select programming and exhibitions previews

**Does not include the ASTC Passport or discount to camps, educational programs or additional tickets.*

To register for a Frost Science Educator Membership, please visit the Membership Priority Window at the onsite Frost Science Ticket Center during regular operating hours with your current school educator I.D. Verification is valid for one full year.

The cost of a Frost Science Educator Membership is \$35/year. Proof of current school year employment is required. School websites, health insurance cards, or a class syllabus are NOT acceptable forms of proof.

Active educator members with a current Educator Membership can convert their Educator Membership to a family membership level of their choice with a \$35 credit towards the purchase of the higher membership level. For more information, please email membership@frostsscience.org or call 305-434-9600.

Accessibility

Frost Science is dedicated to making the museum an accessible space for everyone to learn and enjoy. As part of our *Just for Me* initiative, we offer various opportunities for children and families in our community:

Sensory Toolkits: Anyone visiting the museum can check out a sensory toolkit for free. Toolkits are equipped with noise cancellation headphones, social narrative, weighted blanket and sensory toys.

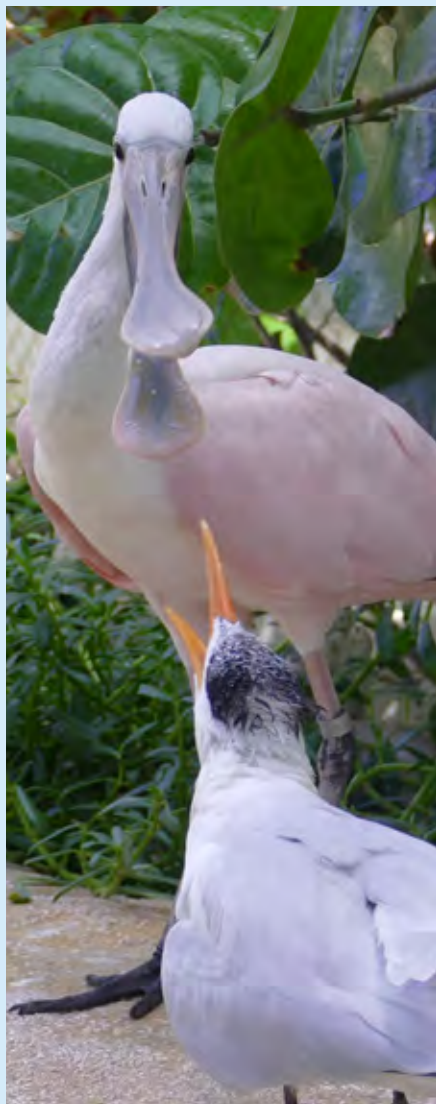
Just for Me days: This event is a way for you and your family to enjoy the museum in a quiet, comfortable and accepting environment. During *Just for Me* hours there will be sound and lighting adjustments within the exhibitions to make them more sensory-friendly.

Field Trip FAQs

For more information regarding field trips, please review the field trip FAQ at frostsscience.org/fieldtrips.



Frost Science Exhibitions



Aquarium

A masterpiece of living science, the three-level Aquarium (*The Vista*, *The Dive*, *The Deep*) carries you from the surface to the depths of South Florida's crucial aquatic ecosystems and beyond.

The Vista

Level 4

A massive outdoor deck, *The Vista* level puts you at the surface of key South Florida ecosystems. In the 500,000-gallon Gulf Stream Aquarium, scalloped hammerhead sharks cruise the waters, while rehabilitated green herons navigate the spaces of the Mary M. and Sash A. Spencer Aviary. Red mangroves and a 22-foot gumbo limbo tree hold court just beyond the Florida Bay Touch Experience, where you can meet and touch gentle stingrays that thrive in our state's shallow backwaters.

The Dive

Level 3

Throughout *The Dive* level, a variety of vibrant aquariums and interactive vessels offer a close-up view of the subtropical sea, where colorful reef fish dart through corals and predators search for prey through the shadows of mangrove trees. The museum's new ReefFlorida-focused exhibits form a centerpiece of the story, highlighting the treasure that is Florida's Coral Reef—and inspiring you to help protect it.

The Deep

Level 2

With a revealing look at the mysterious and vast depths of the Gulf Stream, the lowest level of the Aquarium is where drifters such as jellies reside. A one-of-a-kind 31-foot-wide oculus lens forms the bottom of the Gulf Stream Aquarium and gives you a direct view of the scalloped hammerhead and sandbar sharks swimming overhead.





Power of Science

Ocean Gallery, Supported by the University of Miami

Step into the shoes of researchers, explorers and innovators unlocking everything from the mysteries of the universe to those inside our bodies. In this permanent exhibition at Frost Science, you'll dive into groundbreaking research and discoveries from the University of Miami and beyond. As you journey across four scientific frontiers, Our Oceans, Our Environment, Our Bodies and Our Universe, you'll encounter rare specimens, state-of-the-art scientific instruments and cutting-edge exhibits, including an interactive floor. As you learn about the Power of Science, these interactive exhibits and games will challenge you to think like a scientist and explore real-world solutions to issues such as major storms and threats to coral reefs.



Feathers to the Stars

The Batchelor Foundation Gallery, Supported by Christine Allen

Discover the amazing story of how ancient evolution gave birth to animal flight and how humans used imagination and engineering to get airborne and travel to outer space. Students will come face-to-face with a 30-foot dinosaur, the *Yutyrannus huali*, while exploring interactive stations with handrails that reveal the secrets of birds' biomechanics. They'll meet the daredevil inventors who pioneered human aviation by risking their lives to figure out the aerodynamic principles of thrust, drag, gravity and lift before building and launching their own air rockets in an exploration of the physical laws that guide rockets through the Earth's atmosphere.

meLab

Baptist Health South Florida Galleries

MeLab guides students through the amazing ways the body and mind work together and how daily choices contribute to their health. In this exhibition, they'll get to challenge their brain with problem-solving tasks, stop a 'virtual virus' and more.





River of Grass

William R. Kenan, Jr. Charitable Trust Gallery

The wet, wild and mysterious River of Grass provides young explorers with an interactive way to learn more about the Everglades through two related spaces. In the outdoor area, children see, feel and experiment with the physics of water, introducing them to the concepts that keep the 300-mile Everglades and all its creatures alive. Inside, children venture into an interactive virtual environment where animal characters come to life during a “day in the life” of the Everglades. They’ll chase otters, spot a panther using a flashlight, and by the end of the journey, learn that life in the Everglades is rich and worth protecting. This exhibition is specially designed for children 3-6 years of age.



The Sun Spot

Florida Power & Light Company Solar Terrace

Experience the power of the sun as a renewable source of energy through several interactive solar-powered activities. Begin by feeling the power it takes to energize everyday objects with an outdoor bike or hand crank. Then, discover the science and engineering behind solar panels and explore the dynamic nature of the sun while safely viewing it with a Sunspotter. Students are also invited to get into the engineering mindset as they investigate why we need different types of renewable energies and explore why innovation in batteries may be the solution to the future of clean energy.



The Dig

Why are fossils important to study? How do paleontologists find them, and once they’ve discovered a fossil, how do they collect and research it? Find out in The Dig. As students explore this exhibition, they will be amazed at the evolutionary forces that have shaped life around us. They will also learn how understanding Earth’s past helps us respond to current and future changes. In addition to exploring what it’s like to be a paleontologist, students will see fossils being cleaned and prepared in real time in the PaleoLab, a working fossil preparatory lab. Through this unique opportunity, they can observe the process of fossil preparation and see science in action.



Special Exhibition

Frost Science also hosts to nationally touring special exhibitions. This ensures a regular rotation of topics and experiences for you and your students to explore.

Bugs

November 23, 2024 – April 20, 2025 | Hsiao Family Special Exhibition Gallery

Marvel at a larger-than-life world where you learn about bugs—from bugs—and experience their unbelievable capabilities.

Alert the hive! *Bugs*, a cinematic, immersive exhibition that makes the world under your feet larger-than-life, is coming to Frost Science. Highlighting the biology and evolution of bugs, along with how what we learn from them applies to engineering, nanotechnology, and other fields, *Bugs* explores the science of these amazing tiny animals.

As you buzz through this stunning exhibition, you'll meet six bug ambassadors, each hundreds of times larger than they are in real life. Step into the bug-bassador's chambers to immerse yourself in their world and experience life through their senses. Discover bugs' superpowers through hands-on, interactive activities, like navigating an orchid mantis's secret garden and watching a jewel moth perform "brain surgery" on its prey.

Whether you are being ambushed by a praying mantis, protecting your hive from an invader, or examining the detailed physics of dragonfly flight, *Bugs* will transport you into a hidden world where reality is truly stranger than fiction.

Standout exhibition features include:

- ✓ Four immersive theaters that put you at the center of dramatic scenes from a bug life
- ✓ Scientific displays that highlight how the study of bugs has driven technological innovation
- ✓ Hands-on activities that allow you to see how their talents measure up against insects' extraordinary capabilities

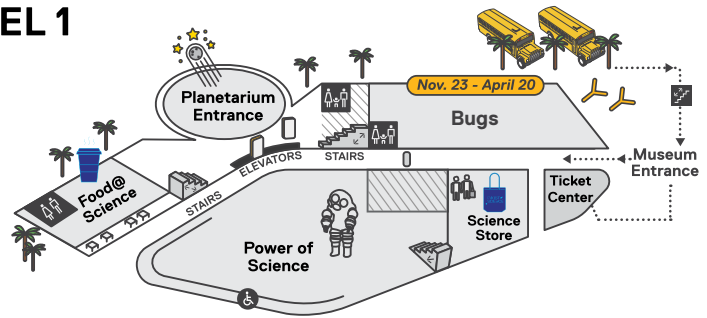
Bugs was developed by the Museum of New Zealand Te Papa Tongarewa with Weta Workshop Limited.

To see all current exhibitions, please visit frostsscience.org/exhibition.

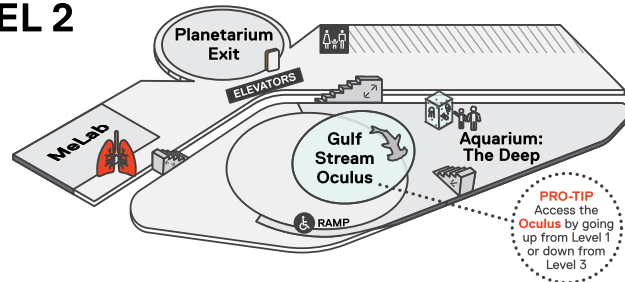
Museum Floor Plan

-  STAIRS
-  ELEVATORS
-  RESTROOM
-  FAMILY RESTROOM
-  CAFÉ
-  NON-PUBLIC AREA

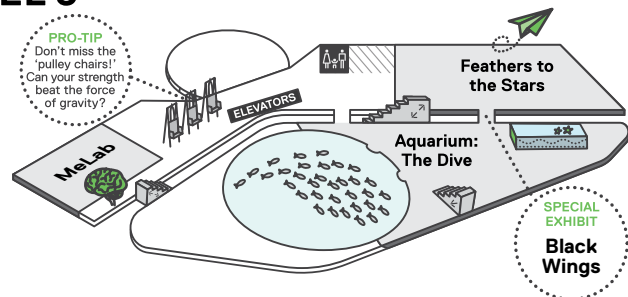
LEVEL 1



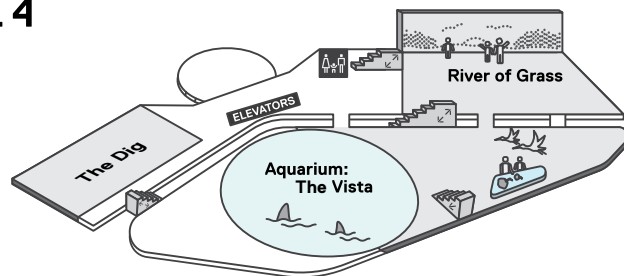
LEVEL 2



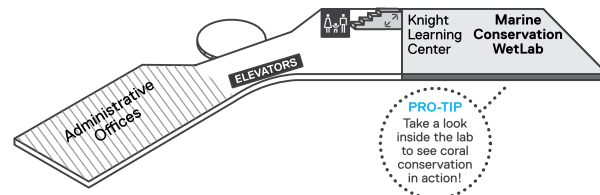
LEVEL 3



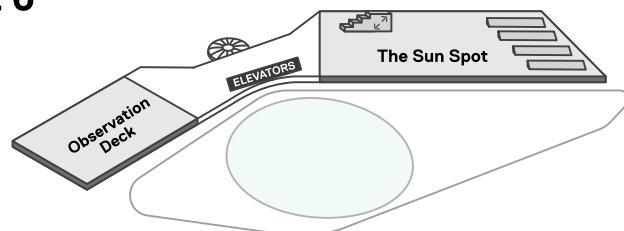
LEVEL 4





LEVEL 5




LEVEL 6 (ROOF)



 For the safety of our animals and divers, please, no flash photography.

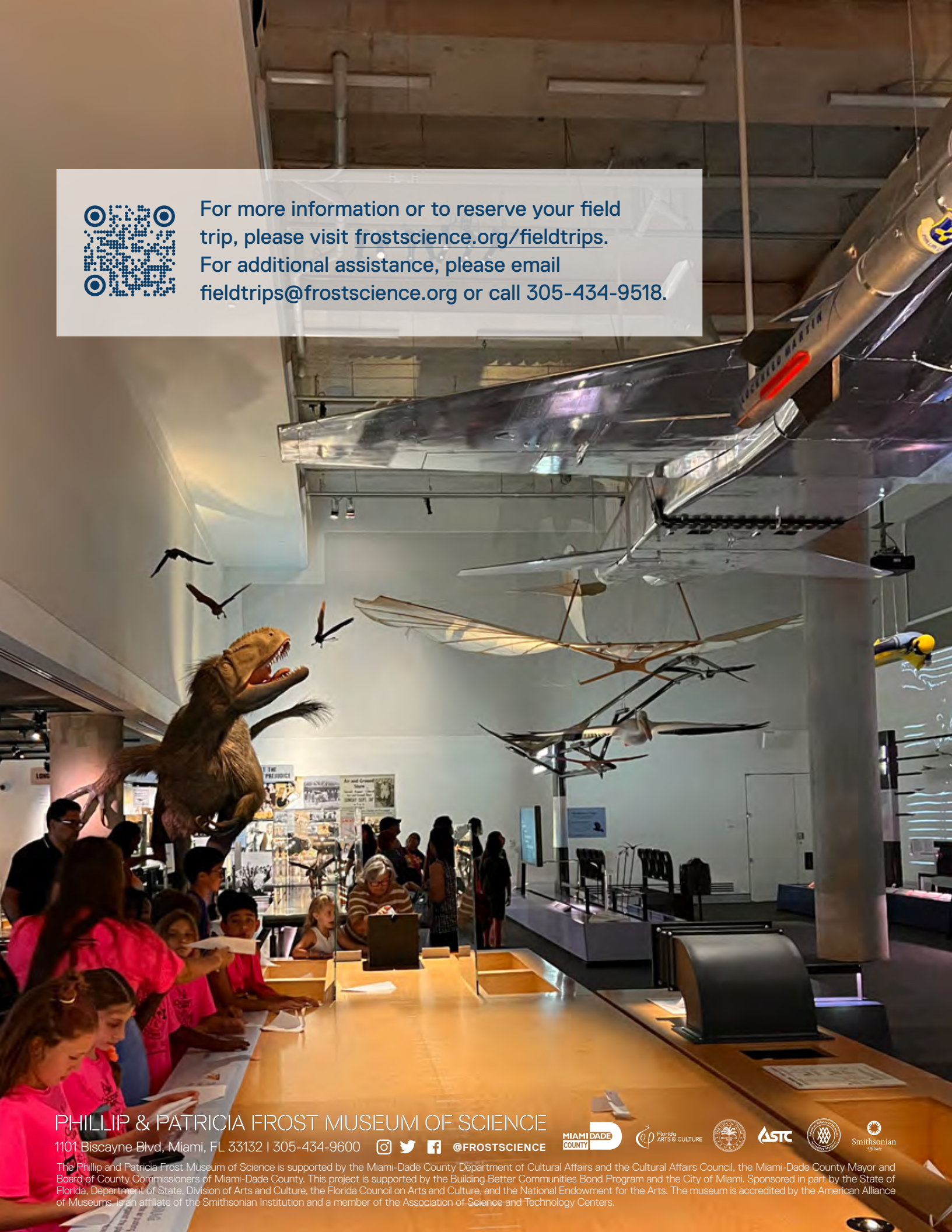
 Food, drinks, gum and smoking are not allowed in museum galleries and exhibitions.

 All galleries and exhibitions are wheelchair accessible.

 Frost Science is a smoke-free facility. No smoking or vaping on property.



For more information or to reserve your field trip, please visit frostsscience.org/fieldtrips.
 For additional assistance, please email fieldtrips@frostsscience.org or call 305-434-9518.



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The Phillip and Patricia Frost Museum of Science is supported by the Miami-Dade County Department of Cultural Affairs and the Cultural Affairs Council, the Miami-Dade County Mayor and Board of County Commissioners of Miami-Dade County. This project is supported by the Building Better Communities Bond Program and the City of Miami. Sponsored in part by the State of Florida, Department of State, Division of Arts and Culture, the Florida Council on Arts and Culture, and the National Endowment for the Arts. The museum is accredited by the American Alliance of Museums, is an affiliate of the Smithsonian Institution and a member of the Association of Science and Technology Centers.