



2025–2026

Educator's **GUIDE**



Visit the Buffalo Museum of Science

VISIT THE MUSEUM

Maximize your group's science learning adventures with a FUN, educational and memorable trip to the Buffalo Museum of Science! The Museum's exhibits foster connections to science, the natural world, and arts and culture along with so many other disciplines—there's something for everyone! Want to build on your students' experience? By adding one of our Group Visit Add-ons you'll elevate your group's experience with more engagement, inquiry and hands-on STEM learning.

Visit sciencebuff.org/educators/field-trips for a complete list of programs.

Pricing and Capacity Guidelines

Group Admission Base Rates:

- \$16 admission/person
- Memberships and other discounts are not valid for group visits.
- 10 person minimum to receive group rate

Chaperones

We require at least 1 adult for every 10 students. 1 adult is admitted free for every 10 students. Additional adults are \$16 each.

Group Visit Add-ons

- Add a Workshop (30–60 minutes) | **+\$4 per student**
- Add a Zygmunt Planetarium Experience (20-30 minutes) | **+\$5 per student**
- Add a Science on Stage Auditorium Show (60 minutes; minimum: 50 students, maximum 250 students) | **+\$3 per student**
- Add a Museum Science Festival (60 minutes per 50 students. Minimum 50 students, maximum 150 students) | **+\$5 per student**
- Add an Enhanced STEM Theme Day | **+\$3 per student**

Reservation Adjustment Policy

Changes to your final group reservation can only be guaranteed a **minimum of 48 hours prior** to the scheduled visit. Groups that arrive with fewer people and/or fail to provide updated numbers 48 hours in advance will be charged the full total due on their initial reservation or the number of attendees the day of, whichever is higher.

If your program requires an extra supply fee, the number of supplies to be ordered must be finalized **three weeks** prior to the program. Even if the number of attendees changes, you will still be responsible for the full number of supplies ordered for your program.

How to Book Your Museum Program

ONLINE: Complete our online reservation request form at sciencebuff.org/educators/educators-reservation and our Guest Support Specialist will contact you to plan arrangements.

PHONE: Call (716) 896-5200 x323 to schedule your school or group's reservation.

EMAIL: Contact our Guest Support Specialist at museumreservations@sciencebuff.org.

*We recommend placing requests at least **one month** in advance.*

Visit Tifft Nature Preserve

VISIT TIFFT NATURE PRESERVE

Think of Tifft as a part of your classroom! Tifft Nature Preserve has been engaging students of all ages and communities for decades, serving as the region's premier environmental education site on the highly accessible Buffalo waterfront. Groups are immersed in a natural environment setting like no other while being guided along trails through woodlands, wetlands, and boardwalks or enjoying a hands-on lesson in our multi-classroom Darling Environmental Education Center.

Pricing and Capacity Guidelines

Due to the interactive nature of our programs and to ensure the best possible quality of experience, we ask that you respect our class size limits. Additional fees may apply for groups that exceed limits.

WORKSHOPS

Minimum 10 students. Maximum 60 students. One adult required for every 10 students. Adults in 1:10 ratio and required aides are free. Pre-K & K workshops: 2–2.5 hours. All other grade level workshops: 2.5–3 hours.

- \$13 per student & \$10 per additional adult (September – March).
- \$15 per student & \$12 per additional adult during peak season (April – June).

GUIDED TOURS

Minimum 10 students. Maximum 60 students. One adult required for every 10 students. Adults in 1:10 ratio and required aides are free. Pre-K & K Tours: 1 hour. All other grade level tours: 1–1.5 hours.

- \$10 per student & \$10 per additional adult (July – March).
- \$12 per student & \$12 per additional adult during peak season (April – June).

DISCOVERY VISITS

Reservations are required for groups of 10 or more. We reserve the right to turn away self-guided groups that do not make a reservation as they may interfere with other scheduled programming.

- \$3 per person.

Reservation Adjustment Policy

Changes to your final group reservation can only be guaranteed a **minimum of 48 hours prior** to the scheduled visit. Groups that arrive with fewer people and/or fail to provide updated numbers 48 hours in advance will be charged the full total due on their initial reservation or the number of attendees the day of, whichever is higher.

How to Book Your Tifft Program

ONLINE: Complete our online reservation request form at tifft.org/educators/program-request and Tifft will contact you.

PHONE: Call (716) 825-6397 to schedule your group's reservation.

EMAIL: Contact Tifft Nature Preserve at tifftreservations@sciencebuff.org.

WHAT IS NEW AND EXCITING FOR 2025-26, YOU ASK?



2025-2026 Enhanced STEM Theme Days

Step up your school visit! Enjoy a self-guided visit with added theme-focused FUN activities for your students to build on their science knowledge in a memorable way on specific scheduled days. Due to popular demand, we are offering additional days this year. Come for the day that works best for you, but spots are limited- book these special experiences early!

COST: \$19 per student (includes Group Admission Base Rate and \$3 Enhanced STEM Theme Day add-on)

• November 12 & 14: Explore You/Science of You

- Take a closer look into the amazing world of how your body works! Groups will participate in hands-on experiments including extracting strawberry DNA, getting grossed out by Glow Germ science, microscope viewing, and breathing deep with our model lungs.

• February 25 - 27: Engineering Explorations

- How do scientists get creative with problem solving to make our lives better? Celebrate **National Engineers Week** with us by exploring and developing this skill set with your students through engaging interactive stations including designing, building and testing sail cars and satellites, participating in the Crossing the Canyon Challenge, the popular Lego zipline, and even programming robots for a test run trial!

• June 2 - 3: Science Favorites

- Let's celebrate the end of the academic year with our most popular and engaging STEM activities! We'll play with dry ice bubbles, mix up some creative colors, discover animal adaptations with specimens from our education collection and take home a paper plate dinosaur. Bonus: Our Albertosaurus puppet, Baby Stanley, won't be able to stay away from the fun and will make some appearances!

Professional Development Workshops

We invite you to our all-new Professional Development Workshops!

Educator workshops are led by BMS and Tifft science and education experts and are aligned with NYS Learning Standards. Workshops will encourage hands-on and inquiry-based learning while focusing on a variety of content areas with activities you can bring into your classroom. All workshops will provide CTLE Professional Development credits.

Workshops topics are listed below. Time requirements of workshops vary, and many can be brought to your school. Visit www.sciencebuff.org/educators/ctle/ or email museumreservations@sciencebuff.org for more information.

Exhibit Explorations

Explore the science studios and interactive experiences at the Buffalo Museum of Science to discover the many ways that the museum can serve as a science resource for you and your students.

STEAM in Your Schoolyard

Connect your classroom curriculum to any greenspace outside your school! Whether you have one tree or a courtyard full, come play with us while we explore simple cross-curricular, nature-based activities that can be applied to your classroom.

Main Street Astronomy: Understanding Earth's Place in Space

Learn how Earth fits into our solar system and discover that you don't need advanced technology to make meaningful observations of space.

Backyard Geology

From Niagara Falls to the shores of Lake Erie, explore Western New York's geological past and its ancient life.

Great Lakes Science

Discover the dynamic water cycle of our Great Lakes region, water quality issues, aquatic habitats, and the wildlife within them through FUN, hands-on activities that can be applied to your classroom and beyond.

Interested in a different topic? The Buffalo Museum of Science and Tifft Nature Preserve also offer custom workshops designed to meet your group's needs. To inquire about booking a custom educator workshop, please contact museumreservations@sciencebuff.org.

HANDS-ON WORKSHOPS AT THE MUSEUM

Get the most out of your field trip to the Museum with special inquiry-based activities led by our team of knowledgeable and fun Facilitators. Our variety of programs that highlight the Museum's unique resources are aligned with grade levels and the NYS P-12 Science Learning Standards. Workshops are 30 minutes for pre-K and 60 minutes for all other grades. Content is adjusted to suit each grade level.

SCIENCE BELOW ZERO

ALL GRADES

Chill out during this super cool workshop! Using liquid nitrogen and dry ice, participants will explore the phases of matter and energy in amazing ways. **A \$25 materials fee applies per workshop session.**

NYSP12SL Standards: 4-PS3-2, 5-PS1-3, MS-PS1-4

HABITAT EXPLORERS

GRADES PRE K-K

Embark on a journey to explore the diverse habitats and adaptations of exotic animals with biofacts from the Museum's collection. Learn about the movement of animals with an interactive game.

NYSP12SL Standards: K-LS1-1, K-ESS3-1

BUBBLE BLAST

GRADES K-2, AVAILABLE APRIL - AUGUST

Explore the science of soap and water! Participants will experiment with bubble solution, bubble tools, and learn all about bubble science. A \$10 materials fee applies per workshop session.

NYSP12SL Standards: K-2-ETS1-1, K-2-ETS1-2, 2-PS1-2

FANTASTIC FOSSILS

GRADES K-2

Become a paleontologist and unearth animals that lived long ago! Participants will examine various fossils from near and far to make connections between extinct creatures and those that live today.

NYSP12SL Standards: 2-LS4-1, (3-LS4-1)

INSECTIGATIONS

GRADES K-5

Get up close to some incredible (and friendly) insects! Examine live insects and other arthropods, observing their anatomy and behavior while developing an understanding and appreciation of these amazing animals and their unique characteristics.

NYSP12SL Standards: K-LS1-1, 2-LS4-1

WILD ADAPTATIONS

GRADES 1-5

Investigate the adaptations that allow plants and animals to survive in their natural habitats. Using biofact specimens from the Museum's Collection, explore how changing environments affect living things.

NYSP12SL Standards: K-ESS3-1, 2-LS4-1, 3-LS3-2, 3-LS4-2

ARTIFACT EXPLORATIONS

GRADES 3-5

Become an archeologist for a day with our excavation simulations and artifact analysis. We'll discover what

artifacts can tell us about traditions, beliefs, language, and geography using items from the Museum's Collection.

NYSP12SL Standards: 3-LS2-1, 3-ESS2-2

DYNAMIC EARTH

GRADES 3-5

Get to know the rocks and minerals under our feet and decode clues about the history of Earth's surface. Examine the geologic processes that shape our planet including the rock cycle, creation of landforms, geography, and more.

NYSP12SL Standards: 4-ESS1-1, 4-ESS2-1

OUR PLACE IN SPACE

GRADES 3-5

Help build a mega model of our solar system! Along the way, participants will explore the many shapes, sizes, similarities and differences of celestial bodies near and far. Be a star and expand your learning horizons!

NYSP12SL Standards: 2-ESS2-3, 3-PS2-2, 4-ESS2-2, 5-ESS1-1

CHEM QUEST

GRADES 3-8

Inspire the inner chemist in your students! Discover chemical properties by experimenting with acids and bases, making mini explosions, and more in this hands-on program. **A \$10 materials fee applies per workshop session.**

NYSP12SL Standards: 5-PS1-2, 5-PS1-4, MS-PS1-2

ENGINEER-IT! CHALLENGE

GRADES 3-8

Are you up to the challenge? Participants will become civil engineers and work in teams to design, build and test their creations to solve a real-world challenge. This workshop includes time to evaluate the item's performance, just how the professionals do it!

NYSP12SL Standards: MS-ETS1-1, MS-ETS1-2, MS-ETS1-3

DISSECTIONS

GRADES 4-12

Dissect a cow eye, flower, or squid with the Buffalo Museum of Science! This workshop allows participants to investigate body systems or plant physiology and helps students visualize how structure relates to function. **A lab/materials fee applies depending on specimen chosen. See pricing list below.**

NYSP12SL Standards: MS-LS1-3, HS-LS1-2, HS-LS4-4 56

- FLOWER | \$15 materials fee per program
- COW EYE | \$50 materials fee per program
- SQUID | \$50 materials fee per program

HANDS-ON WORKSHOPS AT THE MUSEUM

ZYGMUNT PLANETARIUM

Step into our inflatable, digital Zygmunt Planetarium for a 20–30 minute facilitated experience that will allow your students to explore the night sky like never before. Limited capacity of 20 students and 2 chaperones per session. Content is adjusted to suit each grade level.

*Also available as an outreach program to your site! See information under Science on Wheels Outreach section on page 8.

DAY TO NIGHT, MONTH TO MONTH GRADES K-2

Where does the Sun go at night? Why does the sky move? Get your pointer fingers ready as we map out the day-to-day patterns of our closest neighbors in space.

NYSP12SL Standards: 1-ESS1-1, 1-ESS1-2

CYCLES AND SEASONS GRADES 3-5

What really makes the summer so much warmer than winter? Why is it sometimes dark by dinnertime and still light at bedtime? Earth's path around the Sun may be less perfect than you expect, and we're about to see how lucky we are because of it.

NYSP12SL Standards: 3-PS2-2, 3-ESS2-2, 5-ESS1-2

OUR AMAZING EARTH GRADES 3-8

Our home planet is a unique and fascinating place in space! Let's explore the many extreme and beautiful features of Earth from the ground upward.

NYSP12SL Standards: 3-ESS2-2, MS-ESS2-2

SOLAR AND LUNAR ECLIPSES GRADES 6-8

When the stars (and the Moon, and Earth) align! Learn more about when pieces of our solar system line up perfectly, and the seriously mysterious sights of eclipses.

NYSP12SL Standards: MS-ESS1-1, MS-ESS2-1

CLASSES' CHOICE ALL GRADES

Are you being bombarded by curiosity left and right? Are the little kids asking BIG questions? Congratulations: you're in the company of future scientists! Come to the planetarium with a few things to ask our astronomer and let the group lead this fully interactive show. A memorable experience for your group!

FAMILY STEM ENGAGEMENT NIGHT AT THE BUFFALO MUSEUM OF SCIENCE

Wouldn't it be fun for your students and their families to take over the Museum for an evening? Host a STEM Family Engagement Night for your students' families at the Buffalo Museum of Science. All four floors of the Museum will be open for your guests to explore at their own pace. Pricing starts at \$3,000 for up to 200 guests for 2 hours. Add additional fun such as facilitated stations, additional hours, auditorium use, and/or room set-up for food service for an additional cost. Contact our Guest Support Specialist for more information or to reserve a date for your group. (716) 896-5200 x323 or museumreservations@sciencebuff.org.

SCIENCE ON STAGE

Gather your class in the Museum's Auditorium for an interactive and engaging program bringing science and theatre together in dynamic ways! Programs are 60 minutes. A minimum of 50 students is required, maximum capacity is 250 students. Content is adjusted to suit each grade level. For auditorium programs at your school/site, see page 11.

SCIENCE BELOW ZERO ALL GRADES

Chill out during this super cool stage show! Using liquid nitrogen and dry ice, participants will explore the phases of matter and energy in amazing ways. **A \$25 materials fee applies to this program.**

NYSP12SL Standards: 4-PS3-2, 5-PS1-3, MS-PS1-4

LET'S MAKE WAVES! LIGHT & SOUND GRADES 3-6

Explore how energy travels through waves we can see and hear. Students investigate key concepts including vibration, pitch, frequency, reflection, refraction and the Doppler effect through fun, interactive demonstrations.

NYSP12SL Standards: 3-PS2-2, 4-PS3-2, 4-PS4-1-3, NS-PS4-1-3

CHEMESSTRY! GRADES 3-8

Available exclusively at the Museum, ChemMESstry brings science to life with experiments exploring the building blocks of matter. Investigate chemical reactions, acids and bases, pH and more through activities that make chemistry exciting, safe and unforgettable. We can't wait to see your reaction!

NYSP12SL Standards: 3-PS2-1, 4-PS3-2-3, 5-PS1-1-4, MS-PS1-1-2, MS-PS1-4-6

MUSEUM SCIENCE FESTIVALS

Can't choose a specific program? Lots of classes? Bringing multiple grade levels? Want to do ALL the things? Reserve exclusive science exploration and discovery activities for a unique day at the Museum for any grade level. Choose four engaging stations from our greatest hits. Content is adjusted to suit each grade level. See Pricing and Capacity Guidelines on page 8. Call (716) 896-5200 x323 or email museumreservations@sciencebuff.org for more details.

SCIENCE FESTIVAL STATIONS

- Electricity
- Color Mixing
- Science Below Zero (materials fee will apply)
- Ancient Languages
- Biofacts/Arctic Animals
- Crime Scene Investigation
- Alternative Energy
- Insects
- Dinosaurs

TIFFT NATURE PRESERVE WORKSHOPS

In-depth science activities give students hands-on experiences both indoors and outdoors. Workshops include interactive activities as well as a guided tour of the Preserve. Indoor activity alternatives to the tour may be offered in the event of inclement weather. Content is adjusted to suit each grade level.



WHAT'S THE NICHE?

GRADES PRE-K-2 | SEPTEMBER – JUNE

Investigate real animal homes and the various habitats of Tifft. Through hands-on explorations and a guided tour, students discuss interdependent relationships between animals and plants while working together to match animals to their proper habitats and construct animal homes from natural materials.

NYSP12SL Standards: K-LS1-1, K-ESS3-1, 1-LS1-1, 2-LS4-1

SEEDS & NEEDS

GRADES PRE-K-5 | SEPTEMBER – JUNE

Explore the needs of seeds, plus plant parts, life cycles, and species diversity. Through hands-on activities and a guided tour, students investigate the shape and function of real plant seeds, create an imaginary seed designed for dispersal, and plant seeds in pots to take back for observation.

NYSP12SL Standards: K-LS1-1, 2-LS2-1, 2-LS2-1, 3-LS4-3, 4-LS1-1

WINTER SCIENCE

GRADES 3-12 | DECEMBER – MARCH

Compare winter animal survival adaptations. Students use weather monitoring instruments, conduct an experiment, and search for evidence of animal survival on an outdoor hike. Indoor activity alternatives to the tour may be offered in the event of inclement weather. Snowshoeing may be requested (\$2 per person), weather permitting.

NYSP12SL Standards: 3-LS4-2, 3-ESS2-1, 3-LS4-3, 4-LS1-1, MS-LS1-4

ECOSYSTEMS & ADAPTATIONS

GRADES 3-12 | SEPTEMBER – JUNE

Examine the physical features and living organisms of our local ecosystem on a guided tour of the Preserve. Inside, students investigate bird biofacts to learn about adaptations up-close and work in groups to design their own imaginary species and how it can survive.

NYSP12SL Standards: 3-LS4-2, 3-LS4-3, 4-LS1-1, MS-LS1-4

AQUATIC ECOLOGY

GRADES 3-12 | APRIL – OCTOBER

Discover our essential connection to water of the Great Lakes region. Through hands-on water quality testing and macroinvertebrate sampling, students discuss watersheds, aquatic biodiversity, and human impact. To include fishing, add \$2 per student. This informative program is ideal for older students interested in an immersive study of the Great Lakes region.

NYSP12SL Standards: 3-LS4-3, 4-LS1-1, 5-ESS2-2, MS-ESS2-4, HS-LS4-6

TIFFT THROUGH TIME

GRADES 3-12 | SEPTEMBER – JUNE

Embark on a journey of our past to our present through a guided outdoor scavenger hunt and simulated indoor archeological dig to reveal relics of the past. We'll explore early settlement, industrial heritage, and the environmental movement that inspired the Preserve's creation.

NYSP12SL Standards: 3-LS4-4, MS-PS1-3, MS-LS2-5, HS-LS2-7

WILDERNESS SURVIVAL

GRADES 3-12 | SEPTEMBER – JUNE

Discuss survival needs and venture on a guided journey indoors and outdoors in search of shelter, water, food, and fire building materials. Students can implement team-building skills while constructing a survival shelter, as well as learning knot-tying, the importance of fire and wayfinding techniques.

NYSP12SL Standards: 3-ESS3-1, 4-ESS3-2, HS-ESS3-1

CLASSIFICATION & BIODIVERSITY

GRADES 3-12 | SEPTEMBER - JUNE

Compete in a guided bioblitz on the trails in search of different wildlife species, from invertebrates, amphibians, reptiles, fish, mammals, and birds. While indoors, students observe distinguishing traits and model classification skills and survival strategies.

NYSP12SL Standards: 3-LS3-1, 3-LS4-2, MS-LS4-4, HS-LS4-3

FOOD ENERGY FLOW

GRADES 3-12 | SEPTEMBER - JUNE

Witness the food web in action! Search the preserve for real world evidence of how energy flows through different trophic levels. While indoors, students simulate the food web of local ecosystems through hands-on investigations.

NYSP12SL Standards: 5-LS1-1, 5-LS2-1, 5-PS3-1, MS-LS2-1, HS-LS2-5



TIFFT GUIDED TOURS

Explore the outdoors with a knowledgeable facilitator on a guided tour of Tifft Nature Preserve. These tours support learning standards and enhance science curricula for all grade levels through inquiry based outdoor learning experiences. College student and adult tours available. Content is adjusted to suit each grade level. Indoor activity alternatives may be offered in the event of inclement weather.

ANIMAL HOMES & HABITATS

ALL GRADES | YEAR-ROUND

Learn how local animals adapt to their preferred environments.

NYSP12SL Standards: K-LS1-1, 2-LS4-1, 3-LS4-3, 4-LS1-1

EXPLORING NATURE

ALL GRADES | YEAR-ROUND

Venture on a sensory-based journey to actively investigate the Preserve's seasonal characteristics through observation and mindfulness activities.

NYSP12SL Standards: K-LS1-1, 2-LS4-1

LIFE CYCLES

ALL GRADES | YEAR-ROUND

Explore the Preserve in search of animal and plant life cycles in action.

NYSP12SL Standards: K-LS1-1, 2-LS4-1, 3-LS4-3, 4-LS1-1, MS-LS4-3

NATURE IN WINTER

ALL GRADES | DECEMBER – MARCH

Discover how plants and animals adapt to our region's winter conditions. Snowshoes may be requested (\$2 per person), weather permitting.

NYSP12SL Standards: K-LS1-1, 2-LS4-1, 3-LS4-3, 4-LS1-1

CUSTOM TOURS AND WORKSHOPS

Have a unit of study approaching and there isn't a tour or workshop in our offerings that fits that topic? Let us help you customize your visit to make the most of your time at Tifft. Some topics may also be available as a workshop, upon request. Topics can include but are not limited to: Biodiversity, Birds, Classification, Conservation, Food Webs, Invasive Species, Nature Journaling, Tifft History, and Trees & Plants. Seasonal availability is dependent on the topics chosen. For more information call Tifft Nature Preserve staff at 716-825-6397 or email tifftreservations@sciencebuff.org.

SELF-GUIDED DISCOVERY VISITS

Choose a Discovery Visit for an unstructured, self-guided tour and discover Tifft Nature Preserve at your own pace! With 5 miles of trails to explore, you and your group will be amazed by the abundant flora and fauna that you'll discover. A nature scavenger hunt activity is available upon request.



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SCIENCE ON WHEELS OUTREACH PROGRAMS PRICING AND GUIDELINES

Can't come to the Museum or Tifft Nature Preserve? These hands-on programs will bring items from the education collection to your students for a learning experience like no other! No need to worry about bus reservations or field trip permission slips. Choose from a variety of topics to support your desired curriculum. Our experienced facilitators will bring a unique educational experience right to your school, library, or community center through hands-on Classroom Outreach Programs, large scale Assembly Programs, the portable Zygmunt Digital Planetarium or exciting Science Fun Festivals.

Pricing and Capacity Guidelines:

CLASSROOM OUTREACH PROGRAMS

\$175 per program

Pre-K Workshops: Limit 20 students. 30 minute program.

Grades K-12 Workshops: Limit 30 students. 45-60 minute program.

ASSEMBLY PROGRAMS

\$375 per program

Limit 300 people. 60 minute program.

ZYGMUNT DIGITAL PLANETARIUM OUTREACH PROGRAM

\$250 first hour. \$100 each additional 20-30 minute program

Limit 20 students and 2 teachers/chaperones per program. 20-30-minute programs.

Large space (25'x25') and high ceilings (12') are needed, such as a gym or cafeteria. Requires 45 minutes before and after the program for set-up and take down. Due to the weight of the planetarium's components, set-up locations **must** be fully accessible by wheeled carts. Please call (716) 896-5200 x323 or email museumreservations@sciencebuff.org for more details.

SCIENCE FUN FESTIVALS

\$1,500 includes 4 facilitated stations.

Pricing for 2 hours, maximum 200 people. Additional time may be added for an additional cost. A materials fee may apply based on chosen stations.

A roundtrip mileage fee will be added for all Outreach programs.



CLASSROOM OUTREACH WORKSHOPS

Enhance your classroom experience with hands-on, inquiry-based science programs delivered right to your school by our knowledgeable facilitators. Our outreach programs are aligned with grade level standards and tailored to engage students in active learning- no field trip or bus required! Content is adjusted to suit each grade level.

See *Pricing and Capacity Guidelines* on page 8.

SCIENCE BELOW ZERO

ALL GRADES

Chill out during this super cool workshop! Using substances like liquid nitrogen and dry ice, participants will explore the phases of matter and energy in amazing ways. **A \$25 materials fee applies per program session.**

NYSP12SL Standards: 4-PS3-2, 5-PS1-3, MS-PS1-4

SCIENCE IN THE SCHOOLYARD

ALL GRADES

Nature isn't just at nature preserves and deep wilderness areas—it's all around us! Engage your students in STEAM activities to discover nature right in your schoolyard. Select a theme depending on the season and features of your schoolyard or neighborhood:

- NATURE JOURNALING | Year-Round

NYSP12SL Standards: 3-LS4-3, 4-LS1-1

- MATH IN NATURE | Year-Round

NYSP12SL Standards: 3-LS4-3, 4-LS1-1

- OUTDOOR SURVIVAL SKILLS | April – November

NYSP12SL Standards: 4-ESS3-2, HS-ESS3-1

- BUG-OLOGY | May – September

NYSP12SL Standards: 2-LS4-1, 3-LS4-2

HABITAT EXPLORERS

GRADES PRE K-K

Embark on a journey to explore the diverse habitats and adaptations of exotic animals with biofacts from the Museum's collection. Learn about the movement of animals with an interactive game.

NYSP12SL Standards: K-LS1-1, K-ESS3-1

ANIMAL ARCHITECTURE

GRADES PRE-K-2

Investigate real animal shelters such as songbird nests, honeybee comb, beaver-chewed branches, and more. Students work in teams to engineer a small shelter on the classroom floor from natural materials, while also discussing the importance of shelters in various habitats, and the adaptations needed to build them. (For PreK groups, a hands-on story time will be substituted in).

NYSP12SL Standards: K-LS1-1, 1-LS1-1, 2-LS4-1

BUBBLE BLAST

GRADES K-2, SEASONAL APRIL-AUGUST

Explore the science of soap and water! Participants will experiment with bubble solution, bubble tools, and learn all about bubble science. A \$10 materials fee applies per program session.

NYSP12SL Standards: K-2-ETS1-1, K-2-ETS1-2, 2-PS1-2

FANTASTIC FOSSILS

GRADES K-2

Become a paleontologist and unearth animals that lived long ago! Participants will examine various fossils from near and far to make connections between extinct creatures and those that live today.

NYSP12SL Standards: 2-LS4-1, (3-LS4-1)

INSECTIGATIONS

GRADES K-5

Get up close to some incredible (and friendly) insects! Examine live insects and other arthropods, observing their anatomy and behavior while developing an understanding and appreciation of these amazing animals and their unique characteristics.

NYSP12SL Standards: K-LS1-1, 2-LS4-1

ARTIFACT EXPLORATIONS

GRADES 3-5

Become an archeologist for a day with our excavation simulations and artifact analysis. We'll discover what artifacts can tell us about traditions, beliefs, language, and geography using items from the Museum's Collection.

NYSP12SL Standards: 3-LS2-1, 3-ESS2-2

DYNAMIC EARTH

GRADES 3-5

Get to know the rocks and minerals under our feet and decode clues about the history of Earth's surface. Examine the geologic processes that shape our planet including the rock cycle, creation of landforms, geography, and more.

NYSP12SL Standards: 4-ESS1-1, 4-ESS2-1



OUR PLACE IN SPACE GRADES 3-5

Help build a mega model of our solar system! Along the way, participants will explore the many shapes, sizes, similarities and differences of celestial bodies near and far. Be a star and expand your learning horizons!

NYSP12SL Standards: 2-ESS2-3, 3-PS2-2, 4-ESS2-2, 5-ESS1-1

ENGINEER-IT! CHALLENGE GRADES 3-8

Are you up to the challenge? Participants will become civil engineers and work in teams to design, build and test their creations to solve a real-world challenge. This workshop includes time to evaluate the item's performance, just how the professionals do it!

NYSP12SL Standards: MS-ETS1-1, MS-ETS1-2, MS-ETS1-3

MEASURING MAMMALS GRADES 3-12

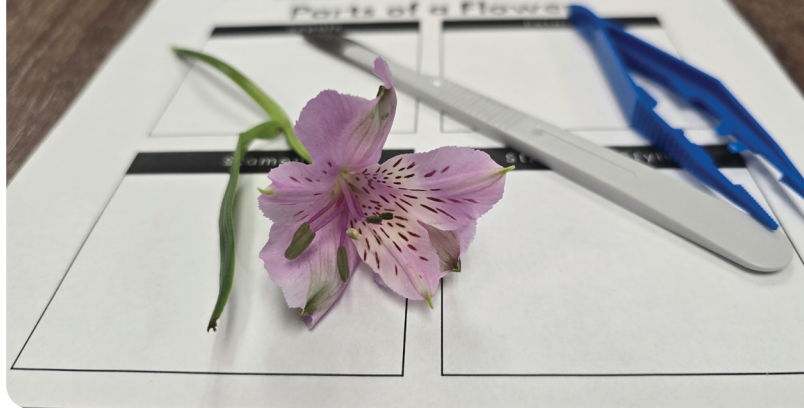
Use measurement, observation, and inquiry to explore real WNY mammal furs, skulls, and tracks! Through this hands-on process, students will become detectives and compare mammalian features and adaptations of carnivores, omnivores, and herbivores of our ecosystems.

NYSP12SL Standards: 3-LS3-1, 4-LS1-1, MS-LS4-4

WHAT'S A WATERSHED GRADES 3-12

Where does the water go when it rains or snows? Discover the dynamic water cycle of our Great Lakes region, water quality issues, aquatic habitats, and the wildlife within them during a presentation of a 3D tabletop watershed model and students' creation of their own.

NYSP12SL Standards: 3-LS4-3, MS-LS2-5, HS-LS4-6



DISSECTIONS GRADES 4-12

Dissect a cow eye, flower, or squid with the Buffalo Museum of Science! This workshop allows participants to investigate body systems or plant physiology and helps students visualize how structure relates to function. A lab/materials fee applies depending on specimen chosen. See pricing list below.

NYSP12SL Standards: MS-LS1-3, HS-LS1-2, HS-LS4-4 56

- FLOWER | \$15 materials fee per program
- COW EYE | \$50 materials fee per program
- SQUID | \$50 materials fee per program

ENERGY EXPLORATIONS GRADES 4-12

Understand why energy is vital to the world and all the people who live in it. Students will investigate what energy is and how we all use energy, plus explore renewable and non-renewable resources and the impacts of energy-related choices.

NYSP12SL Standards: 4-PS3-2, 4-PS3-4, 4-ESS3-1, 5-ESS3-1



ASSEMBLY PROGRAMS

Our dynamic assembly programs bring the wonder of science to your gym or auditorium with engaging demonstrations, fascinating facts and memorable experiments. Designed for larger audiences, these high energy shows align with grade level science standards and spark curiosity for all targeted ages. Content is adjusted to suit each grade level.

See *Pricing and Capacity Guidelines* on page 8.

SCIENCE BELOW ZERO

GRADES K-12

Chill out during this super cool workshop! Using liquid nitrogen and dry ice, participants will explore the phases of matter and energy in amazing ways. A \$25 materials fee applies per program session.

NYSP12SL Standards: 4-PS3-2, 5-PS1-3, MS-PS1-4

LET'S MAKE WAVES! LIGHT & SOUND

GRADES 3-5

Explore how energy travels through waves we can see and hear. Students investigate key concepts including vibration, pitch, frequency, reflection, refraction and the Doppler effect through fun, interactive demonstrations.

NYSP12SL Standards: 3-PS2-2, 4-PS3-2, 4-PS4-1-3, MS-PS4-1-3

SCIENCE FUN FESTIVALS

Science, exploration and discovery come to your school for a day or evening event. Perfect for a family science night at your school or a special immersive day for your students. Choose four stations from the list below or we can customize programming to fit a specific topic or theme. Content is adjusted to suit each grade level. Call (716) 896-5200 x323 or email museumreservations@sciencebuff.org for more details.

See *Pricing and Capacity Guidelines* on page X.

FUN FESTIVAL STATIONS

- Electricity
- Color Mixing
- Science Below Zero (materials fee will apply)
- Ancient Languages
- Biofacts/Arctic Animals
- Crime Scene Investigation
- Alternative Energy
- Insects
- Dinosaurs

ZYGMUNT PLANETARIUM

Step into our inflatable, digital Zygmont Planetarium for a 20–30 minute facilitated experience that will allow your students to explore the night sky like never before. Content is adjusted to suit each grade level. Limited capacity of 20 students and 2 chaperones per session.

See *pricing and set-up requirements* on page 8.

DAY TO NIGHT, MONTH TO MONTH

GRADES K-2

Where does the Sun go at night? Why does the sky move? Get your pointer fingers ready as we map out the day-to-day patterns of our closest neighbors in space.

NYSP12SL Standards: 1-ESS1-1, 1-ESS1-2

CYCLES AND SEASONS

GRADES 3-5

What really makes the summer so much warmer than winter? Why is it sometimes dark by dinnertime and still light at bedtime? Earth's path around the Sun may be less perfect than you expect, and we're about to see how lucky we are because of it.

NYSP12SL Standards: 3-PS2-2, 3-ESS2-2, 5-ESS1-2

OUR AMAZING EARTH

GRADES 3-8

Our home planet is a unique and fascinating place in space! Let's explore the many extreme and beautiful features of Earth from the ground upward.

NYSP12SL Standards: 3-ESS2-2, MS-ESS2-2

SOLAR AND LUNAR ECLIPSES

GRADES 6-8

When the stars (and the Moon, and Earth) align! Learn more about when pieces of our solar system line up perfectly, and the seriously mysterious sights of eclipses.

NYSP12SL Standards: MS-ESS1-1, MS-ESS2-1

CLASSES' CHOICE

ALL AGE LEVELS

Are you being bombarded by curiosity left and right? Are the little kids asking BIG questions? Congratulations: you're in the company of future scientists! Come to the planetarium with a few things to ask our astronomer and let the group lead this fully interactive show. A memorable experience for your group!

AFTERSCHOOL PROGRAMMING

Just because the school day is done doesn't mean we are! The Museum provides fun, hands-on after-school programming to fit your school's needs and to take some weight off your teachers. Using materials from our Education Collection and hands-on activities, we're happy to work with your staff to bring STEM learning to your existing afterschool offerings. Have us come monthly, weekly, or more! Frequency and format of programming can be fully customized to meet your school or organization's needs. Call (716) 896-5200 x323 or email museumreservations@sciencebuff.org for pricing and information!





The Buffalo Museum of Science and Tifft Nature Preserve are proud partners of the Erie 1 BOCES Arts in Education and Exploratory Enrichment programs. For more information, <https://artsined.elb.org/> or scan the code.



**FIND
WHY.**



Valuing Nature's Wisdom



The programs of the Buffalo Society of Natural Sciences are supported in part by public funds from the County of Erie; City of Buffalo; New York State Office of Parks, Recreation and Historic Preservation; and our members and friends.

Buffalo Museum of Science

1020 Humboldt Pkwy, Buffalo, NY 14211
sciencebuff.org

PHONE (716) 896-5200

TOLL FREE (866) 291-6660

Museum Hours

Monday – Sunday 10 a.m. – 4 p.m.

Tifft Nature Preserve

1200 Fuhrmann Blvd, Buffalo, NY 14203
tifft.org

PHONE (716) 825-6397

Education Center Hours

Wednesday – Sunday, 10 a.m. – 4 p.m.

Also available Monday and Tuesday for group reservations and private rentals.

Trail Hours

Open daily from dawn until dusk.

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