

EDUCATION PROGRAMS 2024-2025

PLANNING YOUR GROUP VISIT

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Program offerings are current as of printing.



Updated August 2024

Meet our PROGRAMS TEAM



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STEAM PROGRAMS OVERVIEW

As well as arranged time for hands-on learning in our museum exhibits, we offer additional educational programming that can be tailored to fit your preferred schedule. Let us provide your class with an unforgettable learning experience that is engaging, relevant to your curriculum, and aligned to the NGSS standards.



Fly a simulated mission with us and take on a new challenge!

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visit

What to know in advance of your trip and how to prepare.

LEARNING LAB PRICING



Chaperones (including teachers) are free in a 1:5 ratio for preschoolers and 1:10 ratio for K and up.

Other Programs	Fee	Additional Information
Exhibit Admission Only	\$12.50 per student	Does not include planetarium show. Chaperones \$10 per adult.
Exhibit Admission Add-On	\$8 per student	Does not include planetarium show.
Challenger Missions	\$700	Chaperones \$12.00 per adult
Traveling Science	Cost of programming, additional fees apply.	Varies with location.
Overnights 'Night at the Museum experience'	Packages Available	Limited dates available throughout the year.

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ADDITIONAL PROGRAM PRICING



Chaperones (including teachers) are free in a 1:5 ratio for preschoolers and 1:10 ratio for K and up.

AVAILABLE DISCOUNT PACKAGES





DIGITAL PLANETARIUM SHOWS

From constellations and space exploration to telescopes and dark matter, the Discovery Science Center's full-dome Henry B. duPont III Planetarium is an experience your students will enthusiastically embrace!

All planetarium shows are offered on a reserved basis for groups and must be booked in advance. Our Digital shows are pre-recorded.

Digital Show	Suggested Grade Level	Running Time
One World, One Sky: Big Bird's Adventure	K-1	26 min
We Are Aliens	K-3	25 min
Birth of Planet Earth	4+	25 min
Secret Lives of Stars	4+	27 min
Dawn of the Space Age	4+	41 min
Edge of Darkness	4+	24 min
From Earth To The Universe	5+	30 min



DIGITAL PLANETARIUM SHOWS

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All planetarium shows are offered on a reserved basis for groups and must be booked in advance. Our Digital shows are pre-recorded.

Digital Show	Suggested Grade Level	Running Time
Stars of the Pharoahs	5+	35 min
Seeing: A Photon's Journey	5+	27 min
Forward! To The Moon	5+	27 min
Mars: The Ultimate Voyage	5+	25 min
The Hot and Energetic Universe	5+	30 min
The Sun, Our Living Star	6+	25 min
The Dark Matter Mystery	6+	39 min
Europe to the Stars	6+	31 min



LIVE PLANETARIUM EXPERIENCE

EXPERIENCE A CUSTOM SHOW

Live planetarium experiences give students the opportunity to explore in real time and take students on a journey anywhere in our known Universe. Students have the opportunity to explore and ask the expert questions in this interactive experience.

All live planetarium shows are offered on a reserved basis for groups and must be booked in advance.

SKIES OF TONIGHT

Coming to a dark sky near you! Join our experts as they take you on a fantastic journey through the nighttime sky. Students are shown how to locate and identify the stars, planets, and constellations visible in the evening sky at the time of their visit. The Galaxy awaits...

TOUR OF THE SOLAR SYSTEM

Join our educators for a tour of Earth's nearest neighbors! From planets and dwarf planets to moons and more, you'll see some of the major bodies in our solar system and learn about how our understanding of our place in the universe develops with each new discovery.

CUSTOM

Join our experts for a special planetarium show created to support your learning goals! Shows must be booked a minimum of four weeks in advance, and the Director of the Henry B. duPont III Planetarium must be consulted a minimum of six weeks prior to your show. Pricing varies with content and production. Please call (203) 416-3529.

Please contact us for assistance when selecting the right planetarium show for your group. You can find descriptions of all shows at shudiscovery.org/planetarium



LIVE DEMONSTRATIONS

LIVE DEMONSTRATIONS

Excite and motivate young minds with lively 45-minute participatory presentations. Students are actively engaged in these dramatic and fun introductions to basic science concepts. Learning objectives can be expanded and reinforced by pairing demonstrations with Learning Labs or a planetarium show for a full-day program.



indicated with an asterisk (*).



LIVE DEMOSTRATIONS

*

Learn about how electricity can be created. Discover the differences between static and current electricity. See electromagnetism at work and witness the power of lightning bolts and light bulbs illuminated without wires. You don't want to miss this shocking science experience!

CHEMISTRY

ELECTRICITY *

Is it science or magic? You decide! In this demonstration, explore changes of state (solids to liquids, liquids to gases), mixtures, solutions, and chemical reactions. Chemistry is all around us—come check it out!

ENGINEERING FOR SPACE

It's hard enough to escape the Earth's gravitational pull and make it safely to space, but staying safe in space presents a whole new set of engineering challenges. Astronauts must be protected from extreme heat, cold, vacuum, fast-moving debris, and they need to be able to breathe! We'll learn about the amazing innovations of space gear in this exciting demo that showcases the fascinating engineering challenges and solutions for exploring the "final frontier."

WEATHER

What is weather? What are the key factors that create all the different types of weather we experience? Explore the causes and effects of thunder and lightning, learn about what creates wind currents, and see a tornado demonstration. You won't want to miss this exploration of some of our wildest weather!



LIVE DEMONSTRATIONS

MORE LIVE DEMONSTRATIONS

THE LAWS OF MOTION*

The force is all around us... the forces of motion that is! We'll explore all three laws of motion to test how things interact. See the power of inertia, learn how you can change acceleration by changing mass, and become a rocket scientist! You'll be strong with the knowledge of forces after this demo!

How does our eye see images? How do we see color? What is the difference between subtractive and additive color mixing? Are there invisible colors that we can't see? And just what does it mean when we say our sunglasses are polarized? Discover the answers to these questions and more in our illuminating demonstration about light.

SOUND*

LIGHT

Listen to the interactions of sound waves. Learn about pitch, volume, and the transmission of sound. Watch as instruments, music boxes, and other devices demonstrate the concept of sound. See how machines translate sound from recordings to our ears.

DON'T TRY THIS AT HOME!*

Get ready for the coolest, hottest, most explosive activities that you can imagine. Mad Scientists are welcome as we combine common sense with scientific principles and fascinating fun.



PRESCHOOL

Our preschool programs are designed to fit the learning style of preschoolaged children. Our objective is to bring out your preschoolers' natural curiosity while connecting to the Connecticut ELDS standards. Onsite preschool groups will receive an age-appropriate planetarium show included with the purchase of an on-site Learning Lab program.

SPACE SCIENCE

I Want to Be an Astronaut*

Learn how astronauts live and work in space. Learn about gravity and how rockets launch astronauts and their cargo into space. Students will make a twirly spacecraft and we will launch a mini-rocket in class!

CHEMISTRY

Bubbles*

Get ready to get messy as we make observations of bubbles and learn what makes them "pop!" We'll explore their strength, shape, colors, and more as we blow bubbles everywhere!

EARTH SCIENCE

Wild Weather*

What's the weather today? Learn about weather patterns as we identify how the life cycle of a cloud can help us understand what the weather might be like tomorrow. Make a cloud identifier to help you keep track at home!



PRESCHOOL

CHEMISTRY

Icky & Sticky

Get sticky with us as we explore the sense of feeling! Mixing, stirring and experimenting are all part of this fun class where we make a mess! Use describing words with us as we compare different mixtures.

SPACE SCIENCE

Party with the Stars

What is a star? What are constellations? Are there really animals in the sky? Learn all about the stars and explore the Universe with us. Includes a sticker craft and a live planetarium show.

LIFE SCIENCE

I Want to Be a Zoologist*

Discover a new species with us and study how it has adapted to its environment. Be on the look out for mermaids, unicorns and yet is as we explore if they are really that suited and adapted to their environments!

ENGINEERING

Float Your Boat*

*

Why do some objects sink and others float? Your students will find out as they make predictions and test different materials to see what sinks and what floats. Students will build and test their own boat to apply their understandings of why certain objects float, then see what happens when they add cargo to their creations.



GRADES K - 2

Learning Labs run 75 minutes in the classroom. Our labs are designed to support Next Generation Science Standard cross-cutting concepts and content. Each lab is hands–on and utilizes science and engineering skills and practices.

SPACE SCIENCE

Over the Moon*

Does the Moon shine, or is it simply reflective? Does it change shape, or is it in shadow? Your students will be over the moon as they learn all about our Moon and study its phases. Learn how big the Moon is, how far away the Moon is, and what the Moon is made of, as well as why its appearance changes through the month.

EARTH SCIENCE

Water You up To?

Water is all around us, and has a powerful effect on our planet. Sometimes that effect can be sudden (hurricanes, floods, mudslides, blizzards), and sometimes it can be gradual (erosion, glaciers, river formation). We'll explore erosion and problem solve how water has the ability to shape the land and structures around it.

CHEMISTRY

Slimeology*

Do you like to make a mess? Experiment with Oobleck as we explore states of matter, learning about non-Newtonian fluids and properties in chemistry.



GRADES K - 2

FORCES & MOTION

Motion Commotion*

Students will learn about forces and how to utilize them to change the motion of objects around us. Students will use pushes and pulls when interacting with cars, ramps, balls and various other tools of learning.

SPACE SCIENCE

Solar System Explorers

Join us in the Planetarium as we take an out-of-the-world tour of the solar system with some surprising planetary landmarks on the way! Includes making a take home model of our solar system.

LIFE SCIENCE

Amazing Adaptations

We as humans have adapted to our environment in order to survive for thousands of years. We have done this both physically and behaviorally. Animals have similarly adapted to their environments in many ways from camouflage to strange but useful appendages. Compare with us as we look at adaptations of different species.

LIFE SCIENCE

We're Only Human

Explore the differences between our human traits and those of animals. How do our various systems work together to keep us alive?



GRADES 3 - 5

Learning Labs run 75 minutes in the classroom. Our labs are designed to support Next Generation Science Standard cross-cutting concepts and content. Each lab is hands-on and utilizes science and engineering skills and practices.

EARTH SCIENCE

Natural Disasters*

Have you heard of Pangea? We'll go back in time to learn about the moving plates that have shaped the continents we know today. We'll learn about what happens when plates move against each other, including earthquakes and volcano formation. Join us as we think about how these hazards impact communities.

SPACE SCIENCE

Our Home in Space

Join us in the planetarium as you fly from Earth to other planets and learn about what is around us. See the Earth orbiting around the Sun, and look at what causes observable patterns in space such as night and day, months and years.

ROBOTICS & CODING

Basically Bots*

Learn to code with us with this introductory coding class. You'll have the opportunity to program your own robots and build your own obstacle course for your robot to navigate.



GRADES 3 - 5

Chemistry Matters*

Learn about states of matter, conservation of mass, and physical and chemical changes. We will learn how to identify and classify materials and even test out some Non-Newtonian fluids to see how they defy classification!

The Engineered Egg Drop

You can't engineer an omelette without breaking a few eggs. Can you figure out the best design solution for a problem? You'll compare a set of solutions and select the best one for the job, then implement your chosen design plan. With limited materials and time, you'll need to make important decisions to accomplish this challenge.

FORCES & MOTION

CHEMISTRY

ENGINEERING

Coasters in Motion*

Learn about forces and motion and how Newton's Laws of Motion work in the everyday world. In this class you'll design and build your own prototype for your rollercoaster while doing a series of challenges to test your design.



GRADES 6 - 8

Learning Labs run 75 minutes in the classroom. Our labs are designed to support Next Generation Science Standard cross-cutting concepts and content. Each lab is hands–on and utilizes science and engineering skills and practices.

ENGINEERING

Engineering for Earth

Are solar panels and wind energy helping us curb the negative effects of human consumption of the Earth's resources? Let's assess where our weaknesses are and devise a strategy to help our planet. Water consumption and conservation will be discussed along with the construction of a prototype water filtration system.

LIFE SCIENCE

Gene Lab*

Learn about DNA and the genetic code that determines our features. You'll have the opportunity to join us on the Dragon Reserve and Conservation Operation (DRACO) to breed your own dragon! We'll learn the differences between genotype and phenotype to create highly adapted new generations!

CHEMISTRY

Molecule Mysteries

Learn about the motion and stability of the tiniest particles on Earth. Investigate how they react with one another and theorize what happens if we are to introduce a chemical reaction.



GRADES 6 - 8

EARTH SCIENCE

Digging Through Time*

What does the geosphere tell us? Dig deeper through the Earth as you study the layers and strata of the planet you live on. What scientific information can you collect along the way that can be used to guide scientists in the future?

LIFE SCIENCE

Comparative Anatomy

Explore different species and their anatomy as we study the evidence of biological evolution. In this class you'll see examples that demonstrate common ancestry as we compare species and their ancestry.

SPACE SCIENCE

Challenger Center - Space Simulation Mission

Discovery Science Center's Challenger Learning Center is a mock space station and mission control simulation environment that promotes awareness of how technologies make space exploration possible. The simulation creates a cooperative learning atmosphere where students have opportunity to test out a STEM career underscored by teamwork, communication, problem-solving, and decision-making.





HIGH SCHOOL

HIGH SCHOOL PROGRAMS ARE ALSO AVAILABLE AS PROFESSIONAL DEVELOPMENT CLASSES FOR EDUCATORS

Learning Labs run 75 minutes in the classroom. Our labs are designed to support Next Generation Science Standard cross-cutting concepts and content. Each lab is hands-on and utilizes science and engineering skills and practices.

Neuroscience*

Why is a brain cell so specialized? Learn more about brain science with the option to choose from a range of topics from aging, sleep science, addiction and diseases of the brain.

DNA Profiling

Why is DNA profiling so crucial for criminal cases? Learn more about the biology and chemistry of DNA profiling and experiment with gel electrophoresis to narrow down suspects!

Mission LEO*

This program will simulate a mission where students will have the opportunity to study a new planet and determine if the planet is suitable for human life. This four-part lesson series will allow your students to explore coding and robotics, biological sciences and engineering while working in a collaborative team. Please contact us for more information and pricing.

CHEMISTRY

LIFE SCIENCE

SPACE SCIENCE



HIGH SCHOOL

HIGH SCHOOL PROGRAMS ARE ALSO AVAILABLE AS PROFESSIONAL DEVELOPMENT CLASSES FOR EDUCATORS

SPACE SCIENCE

Stellar Stars

In Stellar Stars, we will learn about different types of stars, stellar life cycles, and how astronomers use spectroscopy to determine their properties. This lab includes visualizations in our planetarium.

LIFE SCIENCE

The Beginning of Brains*

Humans are intelligent species, but we don't have the biggest brains. Study neuroscience, biological anthropology and evolution in this learning lab as we find out more about what makes our brain unique.

CUSTOM

Our team will work with you to create programming for your students that is engaging, interactive and meets your required criteria and learning standards. Please contact us if you are looking for tailor-made high school programming.





JUST FOR FUN! GRADES K - 3

Sink and Float!*

How did people learn how to travel over water? Your students will find out as they test different materials to see what sinks and what floats. Students will build and test their own boats to apply their understandings of why certain materials and shapes float, then see what happens when they add cargo to their creations.

Bridge Builders*

What are bridges and why are they important to society? Join us as we discuss the skills it takes to design and build these expansive structures that help to connect our world. We will dabble in bridge design, review bridge types and assess how tension and compression play a role in the structures. We will also try some construction of our own using the techniques used by real architects and engineers!

Sleep Science*

Why do you need to sleep? What happens to your body and brain while you sleep? What are good and bad sleep habits? In this class we will reflect on our own sleeping patterns and look into the biology of the brain to figure out why sleep is so necessary for us, while comparing sleep in different species.



JUST FOR FUN! GRADES 4 - 6

Light Fantastic*

This lab is all about light and how we see it, and don't see it! Witness what happens when colors mix, learn about forms of light, the light spectrum, prisms, filters, lenses and diffraction. Can your eyes be tricked? This lab can also be combined with a light demonstration.

Electricial Circuits*

We use electricity all the time, but what is it really? We will define electricity, where it comes from, and how it works. Students will work with circuit diagrams to complete a simple circuit to turn a light on, before moving on to other types of complex circuits.

Great Rocket Challenge

Students compete in a design challenge to bid on a NASA rocket contract, complete with test launch! Plan, budget, build, and test a rocket to see which team has what it takes to win the contract. Students work cooperatively in teams to use math, engineering, and interpersonal skills. Be sure to ask us about a special discount on our Dawn of the Space Age planetarium show to complement this lab! Please note this is a 90-minute lab.



SCIENCE ON A SPHERE

Many of our learning labs include a brief presentation using our Science on a Sphere (SOS). SOS enables an immersive exploration of the Earth, our solar system, and beyond, animated on a five-foot diameter globe. With over 500 datasets, topics can be customized for specific lessons. Contact us for more information and current options.







TRAVELING STEAM

Let us come to you!

Save on bus fees and travel time - we bring the science to you! The Discovery Science Center's education staff will come to your school with exciting participatory programs. All you need to do is provide the audience and the space, and we'll do the rest! For even more excitement, pair one of our demonstrations with a science lab and make the most out of our visit!

PRESCHOOL PROGRAMS

45 Minute Programs - Starting from \$250

In-state - minimum fee for up to 18 students, add \$12.00/student up to a maximum of 22. Classes in excess of 22 require an additional instructor and additional minimum fee. Out-of-state travel fees apply with additional \$5 per student.

GRADES K - 8

75 Minute Programs - Starting from \$350

In-state - minimum fee for up to 20 students, add \$14.00/student up to a maximum of 30 students. Classes in excess of 30 require an additional instructor and additional minimum fee. Out-of-state travel fees apply with additional \$5 per student.

LIVE DEMONSTRATIONS

Traveling Demonstrations (45 minutes) - Starting from \$350

Minimum fee for a single demonstration, plus \$200 fee for each additional same demonstration which occurs at the same location on the same day.

CHALLENGER LEARNING CENTER

"CHALLENGER IS A VISUALLY EXCITING, STATE-OF-THE-ART EDUCATIONAL EXPERIENCE."

Discovery Science Center's Challenger Learning Center is a mock space station and mission control simulation environment that promotes awareness of how technologies make space exploration possible. The simulation creates a cooperative learning atmosphere where students have opportunity to test out a STEM career underscored by teamwork, communication, problem-solving, and decisionmaking.



Book two same-day missions, get a free digital planetarium show!

2 HOUR MISSION

Start your mission prep in school and arrive ready to go for your mission! All participants must complete Challenger Training prior to Mission and arrive with completed crew manifest. Chaperones (including teachers) are free in a 1:10 ratio.

Additional chaperones are \$12.00 each, maximum of 6 chaperones per mission. \$700.00 flat rate for up to 28 students.

VIRTUAL MISSION

You can also book a virtual Challenger mission that can be done from anywhere with an internet connection. Virtual missions run 60 minutes. All virtual missions include pre- and post-mission content to bring back to your classroom.

Virtual missions run \$300 per experience up to a maximum of 30 participants.



CHALLENGER LEARNING CENTER

AVAILABLE MISSIONS

Expedition Mars

Grades 5 and up



The year is 2076. A handful of facilities have been established on Mars, including a greenhouse, a mobile geological survey base, and a centralized research habitat. The primary human habitat is not on Mars, but on one of its moons, Phobos. A large shuttle regularly ferries astronauts. However, when crew members discover an imminent threat to their MTV and the Martian surface facilities, they must act quickly to save their stations, their research, and their lives...

Lunar Quest

Grades 7 and up



NASA recently identified areas on the Moon that may support a sustainable long-term habitat for humans. In order to confirm this finding, NASA issued a directive for astronauts to return to the Moon! In this Mission, a team of astronauts must board a spacecraft and launch to the Moon, while a team of scientists and engineers on Earth command and assist the astronauts in Mission Control. However, when the spacecraft crew begins to receive troubling readings from below the surface, the two teams must work together and make critical decisions to turn a possible catastrophe into NASA's finest hour!

VIRTUAL SIMULATION - 60 MINUTES

Interactive Virtual Missions! Choose from Destination Mars or Destination Moon, where students experience real-world STEM careers, and are placed into teams to conduct research and collaborate to find solutions to urgent challenges. Students practice critical 21st century skills including teamwork, collaboration, and problem-solving, while establishing a presence on Mars and the Moon.



PLANNING YOUR VISIT

Our educators and Science Center staff are ready to provide you and your students with the very best educational enrichment programs available. Challenger Mission educators are trained to lead realistic, communication-based simulation experiences to achieve a unique, cooperative learning atmosphere.

Multiple programs, booked for the same group and visit, are often available at a discounted rate. Many group leaders design a custom day by selecting from the wide variety of science offerings available. Plan now so that your group may join the thousands of students participating in Science Center programs this year.

Booking is as easy as 1-2-3!





Step 2 - Booking Notice

When your reservation has been created by our team you will receive a confirmation email with your itinerary, contract, and invoice.

Step 3 – Contract and Payment

A signed contract is required to finalize your booking. Full payment is due prior to your visit. See contract for details.

If you have any questions about our programs, please contact us at <u>reservations@shudiscovery.org</u> or call us at 203-416-3558. Reservations are on a first-come, first-served basis and are subject to availability.

We look forward to seeing you at Discovery Science Center and Planetarium!



Proud partner of:

Ask us about funding assistance!



ADDITIONAL PROGRAMMING

Discovery has more to offer! Contact us for more information.

- Professional Development
 Homeschool Groups
- Scouts

Mighty STEM Girls

Overnights

THANK YOU TO OUR SPONSORS:



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