Discover a world where learning leaps off the page and screen and into the hearts and minds of your students. Schedule your field trip and class at a Discovery Place Museum. We can even bring an engaging and interactive experience to you through our outreach program.

Exhibits and programs are STEM-based, immersive, interactive and aligned with state and NGSS standards. Demonstrations will spark curiosity and foster a lifelong interest in learning.

Let your students explore the fascinating realms of science, technology, engineering and mathematics, all within the safe, accessible and budget-friendly environment of our Museums.

Experience the difference of a field trip where each student is an active participant, exploring and discovering at their own pace. Our knowledgeable and passionate educators guide your class through various activities, ensuring a tailored experience for your students. You can be confident that your field trip to a Discovery Place Museum will be an unforgettable adventure and a powerful learning experience.

Don’t let cost or logistics keep your class from experiencing the wonders of Discovery Place. We're committed to making our field trips and outreach programs affordable.

So why wait?
Book your field trip and class or outreach program with us today!
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pricing</td>
<td>4</td>
</tr>
<tr>
<td>Policies &amp; FAQs</td>
<td>5</td>
</tr>
<tr>
<td>Classes At a Glance</td>
<td>7</td>
</tr>
<tr>
<td><strong>DISCOVERY PLACE SCIENCE</strong></td>
<td></td>
</tr>
<tr>
<td>Early Childhood Classes</td>
<td>10</td>
</tr>
<tr>
<td>Lab Classes</td>
<td>12</td>
</tr>
<tr>
<td><strong>DISCOVERY PLACE KIDS</strong></td>
<td></td>
</tr>
<tr>
<td>Huntersville Classes</td>
<td>15</td>
</tr>
<tr>
<td>Rockingham Classes</td>
<td>16</td>
</tr>
<tr>
<td><strong>IN-PERSON OUTREACH</strong></td>
<td></td>
</tr>
<tr>
<td>Classes</td>
<td>17</td>
</tr>
<tr>
<td>Workshops</td>
<td>21</td>
</tr>
<tr>
<td>Assemblies</td>
<td>22</td>
</tr>
<tr>
<td>Digital Classes and Assemblies</td>
<td>23</td>
</tr>
</tbody>
</table>
Field Trips to a Discovery Place Museum

Enrich your students’ experience by visiting a Discovery Place Museum. Pricing applies to a minimum reservation of 15 paid participants. Chaperones receive the student group rate.

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**DISCOVERY PLACE SCIENCE**

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**DISCOVERY PLACE KIDS-HUNTERSVILLE**

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**DISCOVERY PLACE KIDS-ROCKINGHAM**

MUSEUM CLASSES

$6

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**Outreach Options at Your School**

Bring Discovery Place Educators to visit your school. This is a wonderful opportunity for your students to engage in an exciting and interactive learning experience. Our educators are ready to provide your students with a unique learning experience. They'll bring complex concepts to life and inspire your students to think critically and creatively. Don't miss out on this amazing opportunity to enhance your students’ learning and growth!

Make your event even more memorable with our Festival Booths or create a Family STEM Night to bring in the whole community!

**Festival Booths**

Festival Booth programs display exciting STEM topics for visitors to explore at their leisure. Experiences include hands-on experiments and demonstrations as well as self-guided active-learning time. Festival Booths are a perfect addition to festivals, family nights, school functions and community events.

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**Family STEM Nights**

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Policies and FAQs

Booking and Confirmation
Reservations can be made by scheduling an appointment at DPFieldTrips.org.

Payment Policy
Discovery Place requests full payment three weeks before your arrival date to secure your reservation.

Cancellation Policy
Cancellations must be made in writing by email and acknowledged by a Discovery Place team member to be authorized.

No-Show Policy Customer Support
In the event a group fails to arrive for a scheduled visit and has not provided prior notification by the expected time of the visit, the group will be considered a no-show and will be responsible for the full payment of the booking, regardless of the reason.

Finalizing Attendee Count
A final attendee count is needed 72 hours before your reservation to make any refunds for headcount changes.

Classes/Labs
The maximum classroom capacity is 25 students.

Parking and Departure
Discovery Place Science: Bus drop-off is on 6th Street in front of the Museum’s main entrance at 168 W 6th Street. The Discovery Place Parking Deck is on the next block. Bus parking is off site at the Bojangles Coliseum.

Discovery Place Kids - Huntersville: Buses should enter via Old Statesville Rd and unload students by the Growing Garden. After your field trip, buses will pick up students at the rear of the Museum and exit via Gilead Rd. Bus parking is unavailable on-site in our parking deck. However, buses can park for free at North Mecklenburg Park.

Discovery Place Kids - Rockingham: Parking in the Museum’s lot is free for cars and buses.

On-site Lunch Option
Bean Sprouts Café is available for catering. Orders must be placed two weeks in advance and placed directly through the Bean Sprouts website.

Lunch Space
On-site lunch space is based on availability. Please speak with your Discovery Place trip coordinator to set this up. Lunch space is reserved for students, but chaperones may join if there is room. On-site lunch space is only available at Discovery Place Science.

Content Area Symbols

<table>
<thead>
<tr>
<th>Early Childhood</th>
<th>Biomedical Science</th>
<th>Reading</th>
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<tbody>
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<td>Life Science</td>
<td>Engineering</td>
<td>Social Science</td>
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<td>Natural Science</td>
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<td>Physics</td>
<td>Social-Emotional Development</td>
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<tr>
<td>Computer Science</td>
<td>Math</td>
<td>Physical Development</td>
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Get ready for an amazing field trip to a Discovery Place Museum, where students will be immersed in a world of active learning, teamwork and unforgettable memories. By following these tips, you’ll make this adventure not only enjoyable but also educational and safe for your entire group!

1. **Plan a Pre-Visit**
   Be the ultimate prepared educator by visiting the Museum ahead of time. You’ll get the lay of the land, preview exhibits and activities and be ready to maximize your students’ experience.

2. **Set Clear Objectives**
   Make this field trip more than just a day off from school! Outline learning goals aligned with your curriculum, share them with students and chaperones and plan activities that bring those objectives to life.

3. **Assign Responsibilities**
   Keep things running smoothly by designating roles for teachers, chaperones, and students. Set behavior expectations and establish a buddy system for an organized and well-managed trip.

4. **Consider the Itinerary**
   Resist the urge to overstuff your agenda. Prioritize the most engaging and relevant experiences and schedule breaks and free exploration time to keep students excited and energized.

5. **Remember Special Needs and Accommodations**
   Make this field trip fantastic for every student by inquiring about and planning for any necessary accommodations. Discovery Place is dedicated to inclusivity, so our staff is here to help!

6. **Prioritize Safety Protocols**
   Partner with us in ensuring student safety by familiarizing yourself with Discovery Place’s safety measures and communicating clear instructions to students and chaperones.

7. **Debrief and Reflect**
   Extend the educational impact by scheduling a post-trip debriefing. Invite students to share their experiences and connect what they learned to the classroom curriculum, solidifying their newfound knowledge.

By embracing these best practices, your Discovery Place field trip will be a thrilling, secure and enlightening experience. Embark on your memorable adventure today and uncover the wonders our Museums have in store!
## Classes at a Glance

### DISCOVERY PLACE SCIENCE

**PRE K/K** page 10  
Across the Animal Kingdom  
Earth Heroes  
I Like to Move It, Move It  
Mini Meteorologists  
Playing with Programming

**GRADES 1-2** page 11  
Seeing Sound  
Weather Watchers  
Everything Matters  
Engineering Solutions  
Hunting for Habitats  
Robots to the Rescue  
Animal Life Cycles

**GRADES 3-5** page 12  
Move it or Lose it  
Animal Behavior and Adaptation  
What’s the Forecast?  
Ecosystem Explorations  
Force & Motion  
What’s the Matter?  
Earth, Moon & the Great Beyond  
Ohm My Circuits

**GRADES 3-5** page 13  
Intro to Robotics: Coding with Scratch  
Survival by the Numbers  
Laser Lockdown  
Motors, Circuits & Art  
Energetic Contraptions

**GRADES 6-8** page 14  
MAKE: Wind Energy  
Intermediate Robotics: Coding with Python  
Concepts of Chemistry  
DNA Detectives  
Fetal Pig Dissection  
Take a Cell-fie!  
Wonderful Water  
Energizing Ecosystems  
Intro to 3D Modeling  
MEDucation  
Physics in the Making

### DISCOVERY PLACE KIDS - Huntersville

**PRE K/K** page 15  
Coding, Coding Everywhere  
Forecasting the Weather  
Passport to Play  
Science of the Senses  
Community Helpers

**GRADES 1-2** page 15  
Cosmic Adventures  
Wave Explorations  
Rocks Rock  
‘Bot Builders

**GRADES 3-5** page 16  
Community Helpers  
Explore the Senses  
Push, Pull, GO  
Name That Force  
Sound Is Vibration  
Chemical Changes  
Forces and Motion

### DISCOVERY PLACE KIDS - Rockingham

**PRE K/K** page 16  
Community Helpers  
Explore the Senses  
Push, Pull, GO

**GRADES 1-2** page 16  
Name That Force  
Sound Is Vibration

**GRADES 3-5** page 16  
Chemical Changes  
Forces and Motion
Classes at a Glance

IN-PERSON OUTREACH CLASSES

GRADES PRE K-K page 17
Sensory Science
Little Builders
Animal Adventures
What’s the Weather?
Dinosaur Days

GRADES PRE K-1 page 17
Push, Pull, Go!

GRADES 1-2 page 18
Matter Matters
Today’s Forecast
All About Animals
I’m an Engineer
You Can Build It
Sound is Vibration
Catapult Creators
Dino Time
Buddy ’Bots

WORKSHOPS page 21

STEM Foundations Pre K-K
Mini Maker 1-2
Think It, Plan It, Make It 3-5
Robotics 3-5
Dive into Dissection 6-8
Engineering Design Thinking 6-8

ASSEMBLIES page 22
Matter of Science K-8
Beyond the Backyard K-8

GRADES 3-5 page 19-20
The Need for Seeds
Engineering Arctium
Musculoskeletal Marvels
Wind Energy Engineer
Robot Code Quest
All That Matters
Animal Explorations
Chemical Changes
Catapult Engineer
Forces and Motion
Owls, Ecosystems, and Adaptations

GRADES 6-8 page 20
Robotics Engineer
Catapult Engineer
Our Changing Climate

STARLAB PLANETARIUM page 22
Day and Night Pre K-K
Day and Night 1-2
Solar System Spectacular 3-5
Starry, Starry Night 3-5
Solar System Spectacular 6-8

DIGITAL CLASSES page 23
Matter Matters 1-2
Push, Pull K-2
All that Matters 3-5
Forces and Motion 3-5

DIGITAL ASSEMBLIES page 23
A Matter of Science K-8
As a nonprofit, Museum admission covers only a portion of what it takes to fulfill our mission to activate a community of lifelong learners through the power of science, nature and technology. We are grateful for your ongoing support which makes active learning possible for everyone.
Early Childhood Classes are thoughtfully designed for our youngest learners. These inquiry-based classes will have children building their emergent STEM literacy skills through developmentally appropriate exploration of topics such as sound, weather, forces and the amazing world in which we live.

50 Minutes  Minimum 15 Students  Dates & Times Customizable  168 W 6th Street, Charlotte, NC 28202  Class Plans

Early Childhood Classes

GRADES PRE K-K

Across the Animal Kingdom
Prepare to spark curiosity and inspire questions and observations when children meet a variety of Animal Ambassadors. These lively Museum residents will guide children’s discoveries of the similarities and differences of distinct animal groups.

Earth Heroes
NC: PS.K.1, CD-9, CD-14, SC: K-ESS3-3, NGSS: K-ESS3-3
Children will use scientific tools to investigate, measure, and describe the properties and uses of materials that come from the earth, including clay, wood, cloth, and paper. Children will put their problem-solving skills to the test as they imagine ways to reduce, reuse, and repurpose these materials to protect the environment we all share.

I Like to Move It, Move It
This high-energy class creates excitement around physics as children work together to experiment with the power of forces, including pushes, pulls, and gravity. Children will explore the captivating effects of forces and how they can control the movement and position of objects as they conduct investigations and attempt unique challenges.

Mini Meteorologists
Children find their inner meteorologist as they build critical science skills, including measuring, comparing, collecting data, and making predictions. They will explore the ingredients that create weather and use authentic weather tools to learn more about the world around them.

Playing with Programming
Explore the fundamentals of computer science and develop computational thinking skills with this exciting introduction to the technology that changed our world. Children will discover the parts and purposes of computing devices and try their hand at coding simple sequences through real programming tools and energetic games.
GRADES 1–2

Seeing Sound 🎵🎵
NC: PS.2.2, SC: 1-PS4-1, NGSS: 1-PS4-1
Listen closely as you discover the science of sound. Students will conduct experiments to test vibrations, manipulate pitch and volume, and measure sound waves.

Weather Watchers 🌡️
Students will experience the thrill of meteorology by using authentic weather tools. Students will gather crucial data reflecting various weather components and conditions. They will then employ qualitative and quantitative data to analyze, describe and forecast the weather.

Everything Matters 👇🏻
NC: PS.2.1, SC: 2-PS1-1, NGSS: 2-PS1-1
Students will explore and experiment with the fascinating world of matter. Through chemical reactions and observations, they will discover the physical properties that make solids, liquids, and gases unique.

Engineering Solutions 🛠️💡
The engineering design process will come alive as students become engineers. Interactive stations with unique challenges will focus on different branches of engineering, including civil, mechanical, and electrical. Students will work together to brainstorm, test, and iterate on their solutions.

Boost STEM Engagement

Motivation and engagement: A study by the University of California, Irvine, found that students who went on a field trip to a science museum had increased motivation to learn science and were more likely to pursue STEM-related careers.

Hunting for Habitats 🐦🌱
NC: LS.1.1, SC: 2-LS4-1, NGSS: 2-LS4-1
What is needed to survive at the poles, and how do plants thrive in the desert? Through exploration of specimens and experimentation of adaptations, students will gain an understanding of why plants and animals live in certain habitats.

Robots to the Rescue 🤖💡
NC: ESS.1.3, K2-AP-03, SC: 2-ESS3-1, 2.CS.2.2, 2.CS.2.S
Robots to the rescue! Advances in science and technology have paved the way for robots to help humans protect and restore natural resources around the world. Students will join this effort as they solve real-world environmental problems while learning how to code.

Animal Life Cycles 🦀🌱
Students will follow animals through the captivating stages of their life cycles. They’ll use Museum specimens and interactive stations to compare different types of life cycles and explore variations found in members of the same species.
**Discovery Place Science** labs are dedicated to the exploration of an array of topics, including matter, energy, biotechnology, plants, animals and design. Explore the amazing world in which we live through active learning that cultivates science and engineering skills.

<table>
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<tr>
<th>Lab Class</th>
<th>Grade Level</th>
<th>Standards</th>
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<td>3-5</td>
<td>NC: LS.3.1, LS.5.1, SC: 4-LS1-1, NGSS: 4-LS1-1</td>
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<td>Customizable</td>
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<td>The human body is a truly remarkable structure built for protection, movement, and support. Students will experiment with how the muscular and skeletal systems work together and discover the anatomical reasons behind survival.</td>
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<td>Students will enter the captivating world of animal behaviors and adaptations as they test their skills using some of the natural world’s unique and beneficial adaptations. Active exploration of specimens and interactive opportunities will build students’ understanding and meeting our Animal Ambassadors will strengthen students’ connections to the natural world.</td>
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<td><strong>What’s the Forecast?</strong></td>
<td>3-5</td>
<td>NC: ESS.5.1, SC: 3-ESS2-1, NGSS: 3-ESS2-1</td>
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<td>Discover the science behind the weather patterns and phenomena seen in our Carolina skies by conducting experiments and collecting data. Students will make predictions based on the data they gather using data collection software and authentic weather tools to measure and analyze wind speed, precipitation, and temperature.</td>
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<td><strong>Ecosystem Explorations</strong></td>
<td>3-5</td>
<td>NC: ESS.4.3, LS.5.2, SC: 3-LS3-2, 3-LS4-3, 3-LS4-4, NGSS: 3-LS4-3</td>
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<td>Prepare to travel the globe without leaving the lab. Compare the unique characteristics, species, and interconnected relationships found in biomes. Students will enhance their understanding as they observe specimens and draw conclusions. Students will then work together to identify adaptations of Animal Ambassadors and deduce which biome each animal calls home.</td>
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<td><strong>Force &amp; Motion</strong></td>
<td>3-5</td>
<td>NC: PS.3.2, PS.5.2, SC: 3-PS2-2, NGSS: 3-PS2-1, 3-PS2-2, 4-PS3-3</td>
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<td>Students will see and feel the power of the invisible forces that shape our world through experiments exploring Newton’s Laws of Motion. Then, they’ll come together as a team to conquer a final challenge, putting their newfound knowledge to the test.</td>
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<td><strong>What’s the Matter?</strong></td>
<td>3-5</td>
<td>NC: PS.3.1, SC: 5-PS1-4, NGSS: 5-PS1-4</td>
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<td>Don’t let the phase fool you – it’s all matter. Through a series of experiments, students will conceptualize atomic movement across various phases and discover the effects of density on objects. It will be a fascinating exploration of matter and its properties!</td>
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<td><strong>Earth, Moon &amp; the Great Beyond</strong></td>
<td>3-5</td>
<td>NC: ESS.3.1, ESS.4.1</td>
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<td>How well do you know your solar neighbors? Students will take off on an educational journey as they design a scale map of our remarkable solar system. They will uncover fascinating insights about our planetary neighbors and learn about the Moon’s phases through an inquiry-driven investigation.</td>
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<td><strong>Ohm My Circuits</strong></td>
<td>3-5</td>
<td>NC: PS.4.1, PS.4.2, SC: 3-PS2.B, 4-PS3.A.B, NGSS: 4-PS3-2</td>
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<td>No trip to the science museum is complete without coming face-to-face with a Van de Graaff generator! Students will conduct hair-raising experiments as they learn about static and current electricity, master the art of building circuits, and test conductivity.</td>
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Lab Classes CONTINUED

Intro to Robotics: Coding with Scratch
NC: 35-CS-02, 35-CS-03, NGSS: ETS1.C, ETS1.A
Join the world's largest coding community and learn how to program LEGO robots using Scratch. The drag and drop block coding used in Scratch is the perfect entry into the world of coding. Students will learn about "if-then" statements, loops, and strategies for troubleshooting as they program their robot to navigate a series of challenges.

Survival by the Numbers
Prepare to break the code on mathematical wonders found in nature. Students will investigate plant and animal specimens to assess and identify mathematical concepts such as symmetry, patterns, and geometry. Then they'll collaborate to uncover the role of mathematics in survival.

Laser Lockdown
Electronics and coding combine in this thrilling introduction to computer science. Perfect for beginner coders, students will transform an Arduino microprocessor into a high-tech laser security system.

Motors, Circuits & Art
NC: 3.V.3, 4.V.3, PS.4.2, 5.V.3, SC: ETS1.A, ETS1.B, NGSS: 3-5-ETS1, 4-PS3-4
Go beyond conventional art and engineer a bot that can draw autonomously! Students will tinker with circuits as they immerse themselves in the design process. Teams of students will work together to create unique artwork using engineering and electricity.

Energetic Contraptions
NC: 3.V.2, PS.5.2, SC: 3-PS2-1, 4-PS3-4, NGSS: 3-PS2-1, 4-PS3-1, 4-PS3-3, 3-5 ETS1
Students will need to brace themselves for physics in action! They'll uncover the science behind the catapult and its fascinating application of energy transfer. Working in teams, students will immerse themselves in the design process and launch their engineering skills to new levels as they construct and test catapults.
Lab Classes CONTINUED

**GRADES 6–8**

**MAKE: Wind Energy**
Students will tap into the power of renewable energy sources by exploring the world of wind energy! Teams will compete to design and build the most successful wind turbine and harness the wind to sustain a glowing light bulb.

**Intermediate Robotics: Coding with Python**
NC: 68-CS-02, 68-CS-03, 68-AP-10, NGSS: MS-ETS1
Discover the fascinating world of LEGO robotics as students learn the coding language of Python! Students practice syntax and programming structures, bringing their code to life through real-world scenarios. This widely used coding language powers countless applications and websites, making it an essential skill in today’s digital world.

**Concepts of Chemistry**
Start students on the path to chemistry and embark on an exhilarating journey through molecules and solutions. Students will manipulate chemical reactions, decipher physical and chemical changes, and concentrate on concentrations, all while getting well-versed in lab safety skills.

**DNA Detectives**
NC: LS.7.2, SC:LS1-5, LS3-1, NGSS: MS-LS1-5, MS-LS3
Untangle the secrets stored in DNA’s double helix and enter the captivating world of genetics. Students will explore genotypes, phenotypes, alleles, and traits through guided inquiry experiments and investigations.

**Fetal Pig Dissection**
NC: LS.7.1, SC: LS1-3, NGSS: MS-LS1-3
Students will get up close and personal with the body’s inner workings as they conduct a dissection. They will explore complex organ systems and compare them to their own. Take advantage of this tangible connection between science and life!
An additional $17.50 material fee is charged to each participant. Call for information about other specimens available for dissection.

**Take a Cell-fie!**
Students will set off on an exploration into the microscopic world of cells and organelles by creating and analyzing microscope slides - some containing their own cells! Learning essential biotechnology skills along the way, they will build an understanding of how cells contribute to life and identify the defining characteristics of plant and animal cells.

**MEDucation**
NC: LS.7.1, SC: 6-LS1-3, NGSS: MS-LS1-3
Students will review the structures and functions of the major organ systems by using medical equipment to obtain vital signs, interpret common indicators of health, and practice how to respond to various medical emergencies.

**Wonderful Water**
NC: ESS.8.3, SC: 7-ESS3-3, NGSS: MS-ESS3-3
Go with the flow as students explore the hydrosphere and discover its relationship with humans. Students will analyze and interpret data from a “real-world” case file to predict the safety and potability of a water supply. Students will test water quality for dissolved oxygen, pH, and nitrates and debate ways to maintain safe water quality and be good stewards.

**Energizing Ecosystems**
Students will follow the energy through an ecosystem and explore the intricate connections between food, water and nutrients. With the aid of our Animal Ambassadors and engaging interactive stations, students will understand the interconnected relationships and factors that govern the balance of life within an ecosystem.

**Intro to 3D Modeling**
3D printing could be the future, but what goes into designing and creating 3D printed objects? Students will gain real world skills as they use engineering, design, computer science, and geometry to generate models using elementary CAD software.

**Physics in the Making**
NC: PS.7.2, NGSS: MS-ETS1
Learn about the physics behind simple machines and identify them in everyday tools while working through the engineering design process to build a collaborative Rube Goldberg Machine!
Discovery Place Kids - Huntersville offers a childhood learning experience like no other. Students explore their world, test new ideas, develop fine and large motor skills and gain self-confidence.

**GRADES PRE K-K**

**Coding, Coding Everywhere**


Immerse children in the world of coding. Play interactive games and solve puzzles to unlock coding basics like sequencing, loops, and decomposition. Through fun hands-on activities that blend reading and math skills, children will embark on a journey of problem-solving and won’t even realize they’re building essential coding foundations.

**Forecasting the Weather**


Watch them transform into pint-sized meteorologists as they dive into the captivating world of weather. Unleashing their inner scientists, children will use tools to examine weather patterns, scrutinize data and hone their skills to forecast upcoming weather changes.

**Passport to Play**

Pre-K: LDC-5, CD-6, CD-7, CD-9, NC: K.H.1, K.CG.1, PS.K.13, SC: K.H.1, K.CG.1, NGSS: K-2-ETS1-1

How do children around the world play? Children will use their imaginations to travel the globe and play games from other countries while collecting stamps on their passport. They will then compare and contrast those games with games common in the United States.

**Science of the Senses**


Our young scientists will use the scientific method, real tools, and their own observations to better understand how the senses work together and how assistive technology helps people without one of their senses. Children will make hypotheses, test their predictions, and come to conclusions as the five senses guide them in scientific learning.

**Community Helpers**

Pre-K: CD-6, CD-7, CD-9, ESD-7, NC: K.H.1, K.CG.1, PS.K.1, LS.K.2, SC: K.H.1, K.CG.1

Discover the community helpers who help our community be a better place. Explore different jobs to better understand the important role these helpers have in our community. Children will engage in imaginative play and hands-on projects to bring these roles to life.

**GRADES 1-2**

**Cosmic Adventures**


Blast off with us on an exhilarating lunar adventure! Our tiny astronauts will explore the Moon, delving into its mysterious phases and astounding crater formations. As they uncover the secrets of the day and night sky, students will unravel the wonders of gravity and force by propelling rockets into the cosmos and stepping into space as astronauts.

**Wave Explorations**

NC: 2.P.1.1, 2.P.1.2, SC: 1-PS4-1, NGSS: 2-ESS1-1, 2-PS1-1

Prepare to explore the incredible world of waves. Conduct experiments with various vibrating and visual materials as well as manipulate light, pitch, and volume. Your student scientists will measure and modify sound and light waves to display their dynamic nature.

**Rocks Rock**

NC: 1.E.2.1, SC: 2-ESS1-1, 2-PS1-1, NGSS: 2-ESS1-1, 2-PS1-1

Explore the origins and formation of rocks and minerals. Students will crack geodes, seek treasures through rock panning, and observe the hidden properties of newfound specimens. Strength, magnetism and buoyancy - all will be revealed in this geological discovery.

**'Bot Builders**

NC: K2-AP-O3, K2-AP-O5, K2-AP-O7, SC: 1.CS.1.2, 1.CS.2.2, 2.CS.1.2, 2.CS.2.2

Examine the exciting domain of computer programming, where students will hone their computational thinking and problem-solving skills to bring robots to life. Dive into the world of cause-and-effect through thrilling chain-reaction challenges and ignite creativity by collaborating in teams to craft scribble bots that blend art and technology in innovative ways!
**Discovery Place Kids - Rockingham** provides a unique and engaging childhood learning experience. Recently renovated with brand new exhibits, the museum celebrates the area’s industries and culture. Students explore their world, test new ideas, develop fine and large motor skills and gain self-confidence through interactive displays and hands-on activities.

**GRADES PRE K-K**

**Community Helpers**

NC ESD-5, HPD-5, SC ESD-5, HPD-5

Have they ever dreamt of becoming a crucial part of society - like a veterinarian, police officer, builder or doctor? Dive deep into the fascinating world of community helpers and discover the skills, passion, and tools required to excel in these professions. Join us as we reveal the pathways that await those who dedicate their lives to making a difference in their community.

**Explore the Senses**

NC ESD-5, HPD-5, PS.K.1, SC ESD-5, HPD-5

Children will use the scientific method, real tools and their own observations to better understand how the senses work together. They will make hypotheses, test their predictions and come to conclusions as the five senses guide them in scientific learning.

**Push, Pull, GO!**

NC PS.K.2, PreK CD-15, SC K-PS2-1, NGSS K-PS2

Children will go on an exciting adventure into physics through interactive play and discovery. Witness their curiosity fueled as they manipulate objects in motion, examine their positions and unravel the mysteries of the forces that govern them.

**GRADES 1-2**

**Name That Force**

NC PS.1.1, SC 3-PS-2

Forces are all around us. Students will delve into the intriguing effects of air, magnetism and gravity on object motion, unraveling the secrets behind their daily impact on us.

**Sound is Vibration**

NC PS.2.2, SC 1-PS4-1, NGSS 1-PS4-1

Students will delve into the fascinating world of sound and unravel its mysteries. Watch them discover the connection between frequency, pitch, amplitude, and volume. They’ll experiment with diverse vibrating materials, push speaker design limits for maximum amplification, and manipulate visual sound waves.

**GRADES 3-5**

**Chemical Changes**

NC PS.3.1, PS.5.1, C 5-PS1-4, NGSS 5-PS1-4

Get ready for thrilling chemical adventures as students unravel the mysteries of material properties. They’ll uncover the distinctions between physical and chemical transformations and learn how to identify when a chemical metamorphosis occurs.

**Forces And Motion**

NC PS.3.1, PS.4.1, PS.5.2, SC 5.P.5, NGSS 3-PS2-1

Newton’s Laws of Motion come alive in this class packed with hands-on activities. Students will perform experiments for each of Newton’s Laws using tools such as hover pucks and rocket cars.
In-Person Outreach Classes

**Sensory Science**
NC PS.K.1, CD-15, LDC-3, LDC-7
Children will experience the wonder of science as they tap into their senses and discover a whole new world of descriptive vocabulary, unlocking the secrets of the world around them like never before.

**Little Builders**
NC PS.K.1, PS.K.2, APL-6, APL-9, ESD-5, LDC-7, CD-11, CD-15, NGSS K-2- ETS1-2, K-PS2-1
Get ready for an exhilarating adventure where young minds will tackle a series of intriguing challenges. With diverse building materials at their disposal, these future innovators will push their problem-solving skills to the limit, refining and optimizing their groundbreaking solutions.

**Animal Adventures**
NC LS.K.1, LS.K.2, SC K-LS1-1, K-ESS2-2, K-ESS3-1, LDC-3, LDC-7, CD-15
Children will take an exciting journey into the animal kingdom by exploring a wide range of creatures and discovering their distinct features. Children will gain an appreciation for nature’s many diverse forms by comparing the characteristics of animals that make them different from other animals and nonliving things. Live animal encounters provide additional insight as they observe these fantastic species in person.

**What’s the Weather?**
NC ESS.K.1, SC K-PS3-1, K-ESS2-1, K-ESS3-2
Children will observe and describe weather conditions throughout the seasons, engage in critical thinking to choose weather-appropriate clothing and use real meteorological tools to explore how scientists utilize them to collect data.

**Dinosaur Days**
NC LS.K.1, LS.K.2, HPD-4, HPD-5, APL-1, APL-2
Your class will be transformed into paleontologists as they explore the thrilling world of dinosaurs. Children will unearth authentic fossilized treasures, create models of imprint fossils, and explore real dinosaur fossils.

**Push, Pull, Go!**
NC PS.K.1, PS.K.2, SC K-PS2-1, K-PS2-2, CD-15, LD-7
Children will go on an exciting adventure into physics through interactive play and discovery. Witness their curiosity fueled as they manipulate objects in motion, examine their positions and unravel the mysteries of the forces that govern them.

**GRADES PRE K-1**

**GRADES PRE K-K**

**Bring Discovery Place** experiences to your school or community! Outreach programs are designed to meet the interests and educational requirements of your group by aligning curriculum with both North and South Carolina state standards and Next Generation Science Standards. These programs complement both in-school and out-of-school learning for Pre K through Grade 8.

- 50 Minutes
- Maximum 25 Students
- Dates & Times Customizable
- Class Plans

**Bring Discovery Place** experiences to your school or community! Outreach programs are designed to meet the interests and educational requirements of your group by aligning curriculum with both North and South Carolina state standards and Next Generation Science Standards. These programs complement both in-school and out-of-school learning for Pre K through Grade 8.

- 50 Minutes
- Maximum 25 Students
- Dates & Times Customizable
- Class Plans
In-Person Outreach Classes CONTINUED

GRADES 1-2

**Matter Matters 🌠 siti**
NC PS.2.1, SC 2-PS1-1, 2-PS1-2, 2-PS1-4, NGSS 2-PS1
Students investigate the properties of solids, liquids and gases through hands-on experiments and observe instantaneous phase changes featuring liquid nitrogen. They will collect data to compare different states of matter and test for special properties in a variety of materials.

**Today's Forecast 🌠 siti**
NC ESS.2.1, SC 3-ESS1-2
Students will become amateur meteorologists by using authentic weather instruments to gather crucial temperature, precipitation and wind data. They’ll investigate seasonal patterns through data comparison and analysis and showcase their meteorological prowess by delivering weather forecast presentations.

**All About Animals 🌠 siti**
NC LS.1.1, LS.2.1, LS.2.2, SC 1-LS1-1, 1-LS1-2, 1-LS3-1, 2-LS4-1, NGSS 2-LS4-1
Students will get up close and personal with the animal kingdom in this tactile exploration of seven major classes of animals. Students will examine authentic specimens, discovering the unique traits that make them truly remarkable. They will experience astonishing encounters with living creatures from Discovery Place while learning the science of animal classification like a biologist.

**I’m an Engineer 🌠 siti**
NC PS.1.1, SC 2-PS1-3, NGSS K-2 ETS1
Discover what it’s like to be an Electrical, Mechanical and Civil Engineer. Using the Engineering Design Process, students will analyze engineering challenges, design and construct solutions, and test and improve their designs.

**You Can Build It 🌠 siti**
NC PS.1.1, SC 2-PS1-3, NGSS K-2 ETS1, 2-PS1-1
Prepare to unlock your class’s inner engineering talents. Students will explore the fascinating world of balanced forces as they focus their problem-solving prowess. Together, they’ll create, experiment and enhance model structures like towering skyscrapers, magnificent bridges and enigmatic pyramids.

**Sound is Vibration 🌠 siti**
NC PS.2.2, SC 1-PS4-1, NGSS 1-PS4-1
Students will delve into the fascinating world of sound and unravel its mysteries. Watch them discover the connection between frequency and pitch and amplitude and volume. They’ll experiment with diverse vibrating materials, push speaker design limits for maximum amplification, and manipulate visual sound waves.

**Catapult Creators 🌠 siti**
NC PS.1.3, SC 2-PS1-3, NGSS K-2 ETS 1-1, K-2 ETS 1-3
Dive into the world of catapults and engineering marvels! Watch students unlock their creativity and expand their potential and kinetic energy knowledge as they use the Engineering Design Process to design, build, test and improve their catapult masterpieces.

**Dino Time 🌠 siti**
NC LS.4.2, SC 2-ESS1-1, NGSS 2-LS4-1
Unearth the fascinating world of paleontology and unravel the secrets of the past. Students will explore genuine fossils, create unique imprint fossils and participate in an exciting fossil excavation to discover their own treasured keepsakes.

**Buddy 'Bots 🌠 siti**
NC K2-AP-03, K2-AP-04, K2-AP-05, K2-AP-07
Students will become computer programmers and apply computational thinking, problem-solving, and teamwork to code robots through thought-provoking challenges. Budding engineers will have a blast collaborating with their peers and bringing their robots to life.
GRADES 3–5

The Need for Seeds 🌿
NC LS.3.2, LS.3.3, LS.5.2, SC 2-LS2-2, 4-LS1-1, 5-LS1-1, 5-LS2-1, NGSS 3-5 ETS1-1, 3-5 ETS1-2, 3-5 ETS1-3

Students will delve into the fascinating world of plants. They’ll investigate the stages of a plant’s life cycle, explore actual plant specimens to discover various seed dispersal methods and apply their understanding in a captivating botanical design challenge.

Engineering Artemis 🚀
NC PS.3.1.3, PS.5.1.3, SC 4-PS3-1, 4-PS3-2, 4-PS3-4, 5-PS1-3, NGSS 3-5 ETS1-1, 3-5 ETS1-2, 3-5 ETS1-3

Get ready to witness the transformation of students into aerospace engineers, overcoming the complexities of space exploration. With an in-depth understanding of cosmic conditions, these young minds will design innovative solutions to genuine challenges inspired by the thrilling Artemis missions. Join them on this journey into the future of Artemis missions to the Moon and beyond.

Musculoskeletal Marvels 🌈
NC LS.3.1, LS.5.1

Discover the fascinating world of human anatomy as students delve into the complex workings of the muscular and skeletal systems. Through hands-on exploration of actual bones, tissues and artificial joints, they’ll gain a deeper understanding of how these systems function together to support, protect and move the human body.

Wind Energy Engineer 🌬️
NC PS.3.2, PS.4.2, ESS.4.3, SC 4-PS3-2, 4-PS3-4, NGSS 4-PS3-4

Students will harness the power of green energy as they engage their analytical and inventive skills to transform wind power into electricity. With the Engineering Design Process as their guide, they will design, build and test turbine blades for optimal energy conversion.

Robot Code Quest 🚀
NC PS.3.2.2, 35-CS-03, 35-DA-07, 35-AP-08, 35-AP-10, 35-AP-11, 35-AP-15

Prepare for a class adventure as students harness their critical thinking prowess to navigate robots through real-world challenges. They’ll dive deep into code-writing, master the art of troubleshooting and employ the powerful tool of computational thinking to conquer each task.

All That Matters 🌈
NC PS.3.1, PS.6.1, SC 5-PS1-1, 5-PS1-2, 5-PS1-3, NGSS 5-PS1-3

Discover the captivating world of matter as students compare the properties of solids, liquids and gases. Unleash students’ scientific curiosity as they analyze materials, unveiling distinctive properties such as conductivity, magnetism and opacity. Witness the transformation during rapid phase changes through enthralling liquid Nitrogen demonstrations.

Animal Explorations 🦖
NC LS.4.1, ESS.4.3, LS.5.2, SC 3-LS1-1, 3-LS2-1, 3-LS3-1, 3-LS3-2, 3-LS4-2, 3-LS4-3, NGSS 3-LS4-3, 4-LS1-1

Students will explore the adaptations that help animals from six different biomes meet their basic needs and survive. By observing and collecting data from numerous real specimens, learners seek to understand how animals adapt differently to various environments.
In-Person Outreach Classes CONTINUED

Chemical Changes
NC PS.5.1, PS.8.1, SC 5-PS1-4, NGSS 5-PS1-4
Engage in action-packed chemical reactions, including exploding hydrogen balloons, while learning about the properties of materials, the difference between physical and chemical changes and how to recognize when a chemical change has occurred.

Catapult Engineer
NC PS.3.2, PS.5.2, SC 3-PS2-3, 3-PS2-3, 4-PS3-4, NGSS 3-PS2-1, 4-PS3-1, 4-PS3-3, 3-5 ETS1
Students will explore the physics of projectiles and potential and kinetic energy as they use the Engineering Design Process to design, build, test and improve their catapults to achieve the ultimate launch.

Forces and Motion
NC PS.3.2, PS.5.2, SC 3-PS2-1, 3-PS2-2, 4-PS3-1, 4-PS3-3, 5-PS2-1, NGSS 3-PS2-1
Newton’s Laws of Motion come alive in this action-packed class where students dive into hands-on experiments. Using innovative tools like hover pucks and fan cars, participants will bring each of Newton’s Laws to bear and experience the excitement of physics in action.

Owls, Ecosystems, and Adaptations
NC LS.4.1, ESS.4.3, LS.5.2, LS.5.3, SC 3-LS4-3, , NGSS 3-LS4-3, 4-LS1-1, 4-LS1-A
Learn owl about it! Students will dissect owl pellets and collect, analyze and interpret the data to make connections to broader environmental themes such as ecosystems, adaptations and biodiversity.

An additional $100 material fee is charged for each class.

Call For Pricing
Customized programs require a minimum two-week lead time and pricing may vary. We have a broad catalog of workshops to select from and offer customized programs to meet your needs.

GRADES 6–8

Robotics Engineer
NC 68-CS-03, 68-AP-13, 68-AP-15, 68-AP-17
Get ready for a thrilling adventure where students tackle a real-life challenge with the assistance of a trusty robot. Through the Engineering Design Process and the power of computational thinking, students will develop vital skills in troubleshooting, coding and programming, propelling them toward success.

Catapult Engineer
NC PS.7.1, PS.7.2, NGSS MS-ETS1
Students will explore the physics of projectiles and potential and kinetic energy as they use the Engineering Design Process to design, build, test and improve their catapults to achieve the ultimate launch.

Our Changing Climate
NC ESS.6.3, ESS.7.1, ESS.7.2, ESS.8.3, ESS.8.4, SC 6-ESS2-6, 7-ESS3-1, 7-ESS3-3, 7-ESS3-5
Students will delve into this urgent global crisis, investigating the broad topic of climate change and how it affects our state. Through active learning, they will explore central themes such as carbon emissions, biodiversity and plastic usage.
In-Person Outreach Workshops

**GRADES PRE K-K**

**STEM Foundations 🎫**

Vary by class choice
Explore an extensive selection of courses spanning eight unique units of study, all designed to cultivate a passion for STEM. These classes will stoke curiosity and wonder for young explorers aged 4 to 6. Developed to align with North Carolina’s Foundations of Early Learning and Development, each course fosters growth across all five domains.

**GRADES 1-2**

**Mini Maker 🎫**

NC Vary by make, SC 1.S.1A, 1.S.1B, 2.S.1A, 2.S.1B, NGSS K-2-ETS1-1, K-2-ETS1-2, K-2-ETS1-3
Discover the thrilling world of creation and innovation as students transform into skilled makers in this dynamic, hands-on workshop. Dive into a fascinating array of STEAM-focused projects that spark self-expression, ignite critical thinking and unleash the limitless potential of young minds.

**GRADES 3-5**

**Think It, Plan It, Make It 🎫**

NC Vary by make, SC 3.S.1A, 3.S.1B, 4.S.1A, 4.S.1B, 5.S.1A, 5.S.1B, NGSS 3-5-ETS1-1, 3-5-ETS1-2, 3-5-ETS1-3
Watch students transform into scientists, engineers and artists. Using tools and technologies, they will innovate and devise solutions for an array of STEAM-driven challenges. Witness the power of collaboration and critical thinking as they bring their unique creations to life.

**Robotics 🎫**

NC 35-CS-03, 35-DA-07, 35-AP-08, 35-AP-10, 35-AP-11, 35-AP-15, NGSS 3-5-ETS1-1, 3-5-ETS1-2, 3-5-ETS1-3
Dive into the thrilling world of robotics, where students will master coding and debugging techniques to conquer various challenges! Utilizing an assortment of robots, young innovators will skillfully program their way to success and become coding champions.

**GRADES 6-8**

**Dive into Dissection 🎫**

Students will explore the human body and its systems. They’ll unlock the secrets of human anatomy while exploring the captivating similarities and differences between species! Hands-on dissections will guide them in uncovering the mysteries of our inner workings and comparing them with the animal kingdom’s equivalents.

An additional $200 material fee is charged for each class.

**Engineering Design Thinking 🎫**

SC 6.S.1A, 6.S.1B, 7.S.1A, 7.S.1B, 8.S.1A, 8.S.1B, NGSS MS-ETS1-1, MS-ETS1-2, MS-ETS1-3, MS-ETS1-4
Embark with us on a journey of creativity and discovery. Students will use Design Thinking to unlock their full potential, turning challenges into opportunities. With this methodology, they’ll practice empathy-driven problem-solving, foster innovative ideas, build prototypes and test solutions until the perfect one is found.

**Perfect** for both schools and afterschool programs, these multi-session programs allow students to take a deeper dive into STEM through thematically linked, cross-curricular learning. Students will engage in real-world applications, make career connections and cultivate problem-solving skills in specially curated experiences.

- 50 Minutes
- Maximum 25 Students
- Dates & Times Customizable

DISCOVERY PLACE

dpfieldtrips.org | 704.396.4352
Outreach Assemblies

**Energize** your students with a high-octane science experience. Assemblies can accommodate up to 300 students at a time and cover a wide range of topics. The dynamic action includes audience participation, demonstrations and live experiments.

- **50 Minutes**  
- **Minimum 25 Students**  
- **Dates & Times Customizable**

### GRADES K–8

#### Matter of Science

**NC PS.K.1, PS.2.1, PS.3.1, PS.4.2, PS.5.1, PS.6.1, PS.6.2**

Chemistry and physics take center stage in this action-packed presentation! Ignite your students’ curiosity and unleash their inner scientists with captivating demonstrations of combustion, mesmerizing matter transformations, enthralling experiments with electricity and the chilling wonders of liquid nitrogen. Don’t miss your chance to spark their imagination and fuel a lifelong love for learning.

#### Beyond the Backyard

**NC LS.K.1, LS.1.1, LS.2.1, LS.2.2, LS.4.1, LS.4.3, LS.5.2, LS.6.2, LS.8.2, SC K-LS1-1, K-ESS3-1, 1-LS1-1, 2-LS4-1, 3-LS4-3, 4-LS1-1**

Travel across the globe to visit a variety of ecosystems and their animal inhabitants. Meet live Animal Ambassadors and explore preserved specimens from Discovery Place’s collections to discover how animals use their physical and behavioral adaptations to meet their needs in diverse environments in this animal extravaganza.

### Outreach Starlab

**Starlab Planetarium** requires access to electricity and a minimum set-up space of 16 feet in height and clear floor area of 28 x 28 feet. Maximum capacity is 30.

#### GRADES PRE K–K

**Day and Night**

**APL-1, APL-2, APL-8, LDC-1, LDC-7**

In this exploration of our ever-changing sky, students will learn to recognize the differences between day and night skies while observing the intriguing shifts in the Moon’s appearance.

#### GRADES 1–2

**Day and Night**

**NC ESS.1.1, NGSS 1-ESS-1.1, 1-ESS-1.2**

In this exploration of our ever-changing sky, students will learn to recognize the differences between day and night skies while observing the intriguing shifts in the Moon’s appearance.

#### GRADES 3–5

**Solar System Spectacular**

**NC ESS.3.1, ESS.4.1, SC 5-ESS-1, 5-ESS-2**

Experience the mysteries of the cosmos as students unravel the wonders of our celestial neighborhood, studying the awe-inspiring sun, diverse planets, enigmatic asteroids and hidden moons that populate the solar system.

#### GRADES 6–8

**Solar System Spectacular**

**NC ESS.6.1, SC 8-ESS1, NGSS MS-ESS1-3**

Experience the mysteries of the cosmos as students unravel the wonders of our celestial neighborhood, studying the awe-inspiring sun, diverse planets, enigmatic asteroids and hidden moons that populate the solar system.
Digital Classes

Bring exciting demonstrations and at-home experiments right to your virtual classroom. These engaging and interactive classes are tailored to your class’s grade level and curriculum standards.

45 Minutes | Maximum 25 Students | Dates & Times Customizable

GRADES 1–2

**Matter Matters 🌐**

NC PS.2.1, SC 2-PS1-1, 2-PS1-2, 2-PS1-4, NGSS 2-PS1

Observe instantaneous phase changes featuring liquid nitrogen! Students will investigate the properties of matter and its different phases through hands-on experiments from their homes or classroom.

GRADES 3–5

**All that Matters 🌐**

NC PS.3.1, SC 5-PS1-1, 5-PS1-2, 5-PS1-3, NGSS 5-PS1-3

Through amazing demonstrations featuring liquid nitrogen and experiments from their home or classroom, students will gain a greater understanding of the properties of matter in its various phases and how heat affects particle motion and density.

Digital Assemblies

Bring science and nature to your students through a virtual connection. Our educators will create an educational experience that draws students in and keeps them engaged.

30 Minutes

GRADES K–8

**A Matter of Science 🌐**

NC PS.K.1, PS.2.1, PS.3.1, PS.4.2, PS.5.1, PS.6.1, PS.6.2

Chemistry and physics take center stage in this action-packed presentation! Ignite your students’ curiosity and unleash their inner scientists with captivating demonstrations of combustion, mesmerizing matter transformations, enthralling experiments with electricity and the chilling wonders of liquid nitrogen. Don’t miss your chance to spark their imagination and fuel a lifelong love for learning.

**GRADES K–2**

**Push, Pull 🌐**

NC PS.K.1, PS.1.1, SC K-PS2-1, K-PS2-2

Students will explore how forces such as pushes, pulls, gravity and magnets affect the motion of an object. Ignite students’ curiosity as they make predictions and participate in interactive experiments that captivate their minds.

**GRADES 3–5**

**Forces and Motion 🌐**

NC PS.3.2, PS.5.2, SC 3-PS2-1, 3-PS2-2, 4-PS3-1, 4-PS3-3, 5-PS2-1, NGSS 3-PS2-1

Newton’s Laws of Motion come alive in this class with exciting demonstrations coupled with at-home experiments. Students make predictions and investigate how changes in mass, force, gravity and friction affect the motion of an object.