



**DISCOVERY PLACE**  
SCIENCE | KIDS | NATURE



## EARLY CHILDHOOD CLASSES

Early Childhood Classes are for young learners through Grade 2. These inquiry-based classes will have students exploring topics such as sound, weather, forces and the amazing world in which we live.

 50 minutes

 Dates and times are customizable

 Minimum 15 students

 301 N Tryon St  
Charlotte, NC 28202

### \$ Pricing

	Student	Teacher/ Chaperone	Additional Chaperone
Museum Admission	\$8.50	Free	\$8.50
Museum Admission + Class	\$14.50	Free	\$8.50*
Museum Admission + IMAX	\$13.50	\$5	\$13.50
Museum Admission + IMAX + CLASS	\$19.50	\$5	\$13.50*

*Due to space limitations, extra chaperones will not be able to attend class programs, lab programs, workshops or Star Labs.*

### WHAT TO EXPECT

All classes meet the standards for the North Carolina Standard Course of Study. Visit our website for detailed class plans including curriculum standards.

[bit.ly/DPSscienceClasses](http://bit.ly/DPSscienceClasses)

### CALL TO RESERVE

Register by phone  
704.372.6261 x300

Monday - Friday  
8:00 a.m. - 5:00 p.m.

### FIELD TRIPS

School group field trips are \$8.50 per student. Add a class for \$6 more. Add an IMAX film for only \$5 more. One adult chaperone required for every 10 students and admitted at no cost.

### PARKING

Cars and vans with clearance less than 7'8" can park in the Discovery Place Science Parking Deck for an additional charge. Parking for larger vehicles is available at an off-site lot Monday - Friday.

### LUNCH

Space for students to eat bagged lunch is available and must be scheduled in advance. Box lunches are also available with advance purchase through the Museum's CurioCity Café. Cost is \$6.50 per student; adult box lunches are \$9.50 each. Box lunches include a sandwich, chips and a drink.

## GRADE PRE K-2

### AMAZING ANIMALS

Get up close with amazing creatures and investigate the habits, life cycles and adaptations of these lively Museum residents. Learn how to classify these animals into specialized groups.

### CAN YOU HEAR ME?

Explore how sound travels and the process that turns vibrations into sound through fun experiments. Understand how sound waves, volume and pitch affect how we hear sound.

### DIG INTO EARTH SCIENCE

Get ready to dig into earth science and uncover living and nonliving specimens alike. Test Earth materials to determine their uses and follow the rock cycle to see changes over time.

### ENGINEERING 1, 2, 3

Use the engineering design process including testing materials, building structures and completing circuits to investigate real-world challenges. Discover different types of engineering and find out what it takes to be an engineer.

### EVERYTHING MATTERS

Observe and study the properties of solids, liquids and gases. Conduct exciting experiments involving mixing and changing matter.

### I LIKE TO MOVE IT, MOVE IT

This action-packed class is perfect for hands-on learners. Explore the forces of push, pull and gravity as you participate in a variety of exciting challenges.

### MINI METEOROLOGY

Snow, rain, sunshine or clouds? What will the weather be like today? Use tools to develop skills including measuring, comparing, collecting data and making weather predictions.

### OCEAN ADVENTURE

Dive in and explore the world's oceans and a vast array of sea life. Investigate adaptations that allow plants and animals to live in these unique aquatic habitats and meet the amazing sea life that calls *World Alive* home.

### OPERATION RAINFOREST





Become a rainforest researcher and study the plants and animals that live in *World Alive*. Learn about their rainforest home and how your life is connected to the rainforest.

### OUTER SPACE EXPLORATION

Look up to discover what lights up the sky. Investigate the changing faces of the moon and learn how the sun moves across the sky without ever moving.

## LAB CLASSES

Discovery Place Science labs are dedicated to the exploration of energy, biotechnology, anatomy and the maker movement. Explore the amazing world in which we live through hands-on, inquiry-based activities.

-  50 minutes
-  Dates and times are customizable
-  Minimum 15 students
-  301 N Tryon St  
Charlotte, NC 28202

### \$ Pricing

	Student	Teacher/ Chaperone	Additional Chaperone
Museum Admission	\$8.50	Free	\$8.50
Museum Admission + Class	\$14.50	Free	\$8.50*
Museum Admission + IMAX	\$13.50	\$5	\$13.50
Museum Admission + IMAX + CLASS	\$19.50	\$5	\$13.50*

*Due to space limitations, extra chaperones will not be able to attend class programs, lab programs, workshops or Star Labs.*

### WHAT TO EXPECT

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[bit.ly/DPSscienceClasses](http://bit.ly/DPSscienceClasses)

### CALL TO RESERVE

Register by phone  
704.372.6261 x300

Monday - Friday  
8:00 a.m. - 5:00 p.m.

### FIELD TRIPS

School group field trips are \$8.50 per student. Add a class for \$6 more. Add an IMAX film for only \$5 more. One adult chaperone required for every 10 students and admitted at no cost.

### PARKING

Cars and vans with clearance less than 7'8" can park in the Discovery Place Science Parking Deck for an additional charge. Parking for larger vehicles is available at an off-site lot Monday - Friday.

### LUNCH

Space for students to eat bagged lunch is available and must be scheduled in advance. Box lunches are also available with advance purchase through the Museum's CurioCity Café. Cost is \$6.50 per student; adult box lunches are \$9.50 each. Box lunches include a sandwich, chips and a drink.

## GRADE 3

### MOVE IT OR LOSE IT

Explore the structures and functions of the skeletal and muscular systems of the human body through a variety of guided-inquiry activities and the examination of real human specimens.

### PLANTS & SOIL

Can you make music with a banana? Learn how to turn an apple into a musical instrument using programmable electronics.

### WHAT'S THE MATTER?

Don't let the phase fool you - it's all matter. Through a series of hands-on experiments, students will conceptualize atomic movement in different phases and understand how density affects objects.

## GRADES 3-4

### EARTH, MOON & THE GREAT BEYOND

How well do you know your solar neighbors? Create a to-scale map of our solar system while learning about other planets and conducting an investigation into the moon's phases.

## GRADES 3-8

### MOTORS, CIRCUITS & ART

Art is more than just a paintbrush and canvas. It can be made using batteries, motors, circuits and even DrawBots®. Using the design process, participants will create their own draw bot.

*There is a \$3 upcharge per student for this class.*

## GRADES 3-9

### ENERGETIC CONTRAPTIONS

Kinetic and potential energy are on display as students design, build and test their very own contraptions. Put engineering design concepts into practice in this hands-on class.

# LAB CLASSES CONT.

## GRADE 4

### ANIMAL BEHAVIOR & ADAPTATION

Observe fascinating behaviors and adaptations of animals. Explore a variety of living things while participating in guided-inquiry activities. Live animal encounters enhance the hands-on learning experience.

### MAKE: FOSSILS **NEW**

What is a fossil and how are they created? Learn about the mold making and casting process through hands-on interactive experiences while creating your very own fossil.

### OHM MY CIRCUITS

Conduct hair-raising experiments with a Tesla coil while learning the difference between static and current electricity. Students will build a circuit, investigate magnetism and make an electromagnet.

### PLANTS AND SOIL

Learn all about plants and how they survive. Find out what determines soil quality and why some plants absorb more water than others. Get even more hands on with a flower dissection.

### ROCKS AND FOSSILS

Uncover the differences between rocks and minerals while learning about the rock cycle. Classify rocks based on their composition and investigate the processes that create them. Test different mineral properties, uncover how they are formed, and learn about mold, cast and trace fossils.

### FETAL PIG DISSECTION

Junior surgeons will gain a better understanding of human anatomy and the interdependency of body systems through the dissection of a fetal pig.

*Additional material cost of \$10 per participant. Call for information about other organs available to dissect.*

## INSIDE OUT DISSECTION

Junior surgeons will explore the comparative anatomy and the intricacies of organisms through the completion of a dissection.

*Additional material cost of \$8 per participant. Call for information about other organs available to dissect.*

### MAKE: WIND ENERGY **NEW**

Get blown away. Learn about renewable energy sources by taking a closer look at wind energy. Students will design and build wind turbine blades and be challenged to see who gets the most voltage.

## GRADE 5

### ECOSYSTEM EXPLORATIONS

Put on your safari hat and get ready to travel. Discover characteristics of each biome and get up close and personal with live animals.

### WHAT'S THE FORECAST?

Develop a sunny outlook by conducting weather experiments. Use data collection software to analyze wind speed and get an in-depth look at the water cycle.

## GRADES 5–6

### HOT & COLD

Heat is all in your mind! Use your bare hands to cause color changes and see what you look like through an infrared camera. Make fascinating, hands-on discoveries about conduction, convection and radiation.

## GRADES 5–7

### FORCE & MOTION

Feel and see the forces around you. Experiment with Newton's Laws of Motion through a variety of activities, then try and harness those laws in a final team challenge.

### NEED A HAND?

Uncover the real-life benefits of 3D printing within the context of assistive devices like prosthetics. Make an exoskeleton and assemble a basic 3D-printed finger.

## GRADES 5 & 7

### DNA DETECTIVES

Explore genotypes, phenotypes, alleles, and traits. A variety of guided-inquiry experiments and investigations build a better understanding of genes and heredity.

### THE HUMAN BODY

Delve into the human body and discover the systems that keep you working. Explore several body systems using hands-on activities and real human specimens.

## GRADES 5–8

### ADVANCED ROBOTICS

Get an introduction to programming logic and problem-solving by utilizing LEGO® EV3 robots and Mindstorm software. Complete a series of challenges through robotic automation, including loops and sensor interactions.

### CONCEPTS OF CHEMISTRY

Calling all future chemists! Mix molecules, investigate rate altering chemical manipulations and watch as it all goes out with a bang. Lab safety skills will be reviewed.

# LAB CLASSES CONT.

## GRADE 6

### THE SECRET LIFE OF PLANTS

Investigate the basic structure of green plants and how they adapt to both biotic and abiotic factors, as well as influence the cycles through which energy and matter flow.

## GRADE 7

### TAKE A CELL-FIE!

Learn basic biotechnology skills as you delve into the human cell and its organelles. Understand how they all contribute to the basic functions of life. Capture images of your very own cells.

## GRADE 8

### BODIES IN SPACE: THE EARTH-SUN RELATIONSHIP

Attraction is a law of the universe, and the sun and Earth behave in predictable ways that we can model and learn from. Discover our star's birth, what its death might be like and explore our orbital dance.





## Ever wonder how to make the most out of your field trip?

We make planning the perfect field trip easy! Educators can preview Discovery Place Science and any of our IMAX films at no cost. Reach out to Guest Sales to schedule a preview today 704.372.6261 x300.



## HIGH SCHOOL LAB CLASSES

Discovery Place Science labs are dedicated to the exploration of energy, biotechnology, anatomy and the maker movement. Explore the amazing world in which we live through hands-on, inquiry-based activities.

-  50 minutes
-  Dates and times are customizable
-  Minimum 15 students
-  301 N Tryon St  
Charlotte, NC 28202

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[bit.ly/DPScienceClasses](http://bit.ly/DPScienceClasses)

### CALL TO RESERVE

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704.372.6261 x300

Monday - Friday  
8:00 a.m. - 5:00 p.m.

### FIELD TRIPS

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### PARKING

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### LUNCH

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## GRADES 9-12

### APPLIED BIOCHEMISTRY: FINDING PATIENT ZERO

Explore the biochemistry behind our immune system response. Students will use an ELISA method to identify patient zero.

### BIOTECHNOLOGY IN ACTION

Explore the concept of biotechnology through hands-on experimentation. Learn how scientists use biotechnology to transform bacteria.

### BODIES IN SPACE: THE EARTH-SUN RELATIONSHIP

Attraction is a law of the universe, and the sun and Earth behave in predictable ways that we can model and learn from. Discover our star's birth, what its death might be like and explore our orbital dance.

### GENETIC FINGERPRINTING WITH PCR

Delve deeper into the world of DNA by exploring the concepts behind Polymerase Chain Reaction (PCR) techniques. Perform a hands-on experiment using a PCR machine and gel electrophoresis to solve a mystery.

*Note this class is 90 minutes long and is \$18.50 per student*

## OCEANOGRAPHY

Gain an understanding of just how important ocean processes are to the healthy functioning of our planet. Acquire skills to understand and quantify how the ocean works, as well as experience a behind-the-scenes tour of our aquarium and lab.



# DISCOVERY PLACE

## KIDS - HUNTERSVILLE

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.

50 minutes

Times are customizable

Tuesday - Friday

\$12 per student (includes Museum admission & a class)

Minimum 15 students

105 Gilead Rd  
Huntersville, NC 28078

### WHAT TO EXPECT

All classes meet the standards for the North Carolina Standard Course of Study. Visit our website for detailed class plans including curriculum standards.

[bit.ly/DPHuntersvilleClasses](http://bit.ly/DPHuntersvilleClasses)

### CALL TO RESERVE

Register by phone  
704.372.6261 x300

Monday - Friday  
8:00 a.m. - 5:00 p.m.

### FIELD TRIPS

School group field trips are \$6 per student and include full-day Museum admission. Add a class for \$6 more. 1 chaperone per 5 students is required and admitted free.

### PARKING

Cars and vans park free in the parking deck. Offsite parking for larger vehicles is also available.

### LUNCH

While there are no dining facilities at the Museum, covered picnic shelters are available at nearby North Mecklenburg Park or Huntersville Athletic Park.

## GRADES PRE K-K

### COMMUNITY HELPERS

Take on the role of different community helpers and discover tools of their trade. We'll put on their hats and take a look into how their jobs help our community.

### CREATIVE BUILDERS

Grab your hard hat, gloves and safety goggles and join our construction crew! Discover how to use tools in a safe environment, create original blueprints and experiment with simple machines.

### PASSPORT TO PLAY NEW

How do kids around the world play? We will travel the globe and look at games played in other countries and learn how to play them too!

### THE FIVE SENSES

What do our senses do? We will learn about each of our five senses and how they interact with each other through fun games and activities.

## GRADES K-2

### BACKYARD BIOLOGY

Let's explore our backyards! We'll compare characteristics of plants and animals, discover what they need to survive and learn about their life cycles. We'll take a close look at how humans can both negatively and positively affect the environment.

### FORECASTING THE WEATHER

Become a mini meteorologist and use tools to gather and analyze weather data. We'll explore weather patterns and use our knowledge to make predictions about the weather.

### MAKE IT MOVE

It's all about push and pull! Explore the science behind gravity and other forces. We'll use textures to create friction, experiment with catapults and discover the strength of air in this hands-on program.

## GRADES 1-2

### INTERNATIONAL EXPLORERS NEW

Climb on board as we explore countries and cultures all over the world! This hands-on class will give students a glimpse of other places and show how similar we can be even if we're miles apart.

### MATHEMATIC MYSTERIES NEW

Help us solve the mystery using math! We'll use addition, subtraction, time telling and many other mathematic principles to find all the clues and crack the case.



# DISCOVERY PLACE

## KIDS - ROCKINGHAM

Students can explore activities that combine imagination, education and fun. Discovery Place Kids-Rockingham promotes growth in language, art, science and mathematics while building social skills and inspiring curious thinkers.

 50 minutes

 Times are customizable

 Tuesday - Friday

 \$11 per student (includes Museum admission & a class)

 Minimum 15 students

 233 E Washington St  
Rockingham, NC 28379

### WHAT TO EXPECT

All classes meet the standards for the North Carolina Standard Course of Study. Visit our website for detailed class plans including curriculum standards.

[bit.ly/DPRockinghamClasses](http://bit.ly/DPRockinghamClasses)

### CALL TO RESERVE

Register by phone  
704.372.6261 x300

Monday - Friday  
8:00 a.m. - 5:00 p.m.

### FIELD TRIPS

School group field trips are \$5 per student and include full-day Museum admission. Add a class for \$6 more. One chaperone per five students is required and admitted free of charge.

### PARKING

Free parking is available in the lot adjacent to the Museum and ample additional parking is available within 2 blocks.

### LUNCH

Indoor dining facilities are available at Hitchcock Place, across the street from the Museum. To reserve lunch space please call 910.997.5266 x300. Picnic facilities are available at nearby Hinson Lake Park, 152 Hinson Lake Road, Rockingham. To reserve picnic space, please call 910.895.6810.

## GRADES PRE K-K

### COMMUNITY HELPERS

What would you like to be when you grow up? What about a police officer or maybe a veterinarian? How about an EMT or a doctor? Explore what community helpers do each day. Find out what it takes to be one of these important people in our community.

### FAIRY TALE FANTASY

Goldilocks and the Three Bears comes to life through active storytelling, mapmaking and other station-based activities. Test the temperature of porridge, learn why bears are fascinating animals and use classification to build vocabulary and math skills.

### THE FIVE SENSES

Be prepared to spark all of your senses as you tantalize your taste buds, trick your eyes, test your fingertips, excite your ears and become a whiz with your sniffer in this fun, hands-on class.

## GRADES K-2

### INTERNATIONAL PLAY

Travel the world and explore "play" in different cultures. Learn about the traditions and customs behind popular play practices in South America, Europe, Australia and more.

### NUTRITION FOR KIDS

Get ready, get set, get healthy! Learn about nutritious choices as we explore the MyPlate program. Discover the importance of physical activity and much more.

## GRADE 1

### EARTH'S MATERIALS

Learn about the physical properties of Earth's materials and how they are useful in many different ways. Make sure to wear your safety goggles for this meltdown on rocks, minerals, soil and water.

### NAME THAT FORCE

There are forces all around. Learn how forces such as air, magnetism and gravity affect the motion of objects. Explore how these forces impact us every day.

## GRADE 2

### SOUND OFF

Be prepared to make some noise! Learn about the science of sound while investigating the high and low pitch of vibrations.

## GRADE 3

### MOVE IT OR LOSE IT

Explore the structure and functions of the skeletal and muscular systems of the human body through a variety of guided-inquiry activities and the examination of real human specimens.



# DISCOVERY PLACE KIDS-ROCKINGHAM CONT.

## GRADES 2–3

### DYNAMIC MATTER

Gear up to engage in solidifying observations, liquefying experiments and gaseous studies. Learn the science behind the three states of matter.

## GRADES 3–5

### FORCE & MOTION

Feel and see the forces around us. Experiment with Newton's Laws of Motion through a variety of hands-on activities.

## GRADE 4

### EARTH, MOON & THE GREAT BEYOND

Join a rotation revolution powerful enough to alter your world. Learn why the moon appears to change shape each night, why the sun rises and sets and much more.

## GRADE 5

### THE HUMAN BODY

Delve into the human body and discover the many systems that keep you moving. Engage in hands-on activities and see real human specimens.

### Ever wonder how to make the most out of your field trip?


We make planning the perfect field trip easy! Educators can preview Discovery Place Kids at no cost.

Reach out to Guest Sales to schedule a preview today 704.372.6261 x300.

Discovery Place Nature classes provide an immersive learning experience, exploring the Carolinas' native plants and animals and their role in the environment. Young learners will develop a sense of wonder and appreciation of the natural world through live animal encounters, fun hands-on activities, creative experiments and planetarium experiences.


 50 minutes

 Times are customizable

 Tuesday - Friday

 \$11 per student (includes Museum admission & a class)

 Minimum 15 students

 1658 Sterling Rd  
Charlotte, NC 28209

## WHAT TO EXPECT

All classes meet the standards for the North Carolina Standard Course of Study. Visit our website for detailed class plans including curriculum standards.

[bit.ly/DPNatureClasses](http://bit.ly/DPNatureClasses)

## CALL TO RESERVE

Register by phone  
704.372.6261 x300

Monday - Friday  
8:00 a.m. - 5:00 p.m.

## FIELD TRIPS

School group field trips are \$5 per student and include full-day Museum admission. Add a class for \$6 more. One chaperone per ten students is required and admitted free of charge.

## PARKING

Cars and vans can park at the Museum for free. Limited parking for larger vehicles is available onsite.

## LUNCH

Limited outdoor space for students to eat bag lunches is available. There are no indoor dining facilities. Picnic shelters are available within walking distance at Freedom Park.

## GRADE PRE K

### ANIMAL ENCOUNTERS

Explore many different types of animals including reptiles, mammals and amphibians. Compare them with invertebrates like insects and millipedes and learn what all animals need to survive.

### WONDERS IN THE WATER

Ponds are very busy places. Discover how animals depend on ponds and puddles; not just for a drink but also for reproduction and shelter. We'll get up close with animals and specimens during this interactive class.

## GRADES PRE K-K

### TWINKLE, TWINKLE

#### In the Planetarium

Learn about the Big Dipper, the North Star and other features of the night with some of our friends from Sesame Street. Then put your knowledge to the test by finding these features in our own night sky! Conclude your time in the Planetarium by listening to a few stories and myths associated with the constellations.

## GRADE K-1

### ANIMAL ADAPTATIONS

North Carolina is home to a wide variety of mammal, reptile, amphibian and bird species. Students will explore how these animals interact with their surroundings and use adaptations to best survive in their environment. We'll get up close with animals and artifacts and use sensory stations during this hands-on class.

### CRITTERS IN THE COLD NEW

As fall transitions to winter, the change in weather triggers animal adaptations like hibernation, migration and food storage. We will explore these adaptations through animal artifacts, group activities and live animals.

### SPECIES OF THE SPRING NEW

Animals become very active during the warm spring months. Explore these differences in animal behavior from winter to spring. We'll get up close with animals and artifacts and use sensory stations during this hands-on class.

# DISCOVERY PLACE NATURE CONT.

## GRADE 1

### INCREDIBLE INVERTEBRATES NEW

Students will explore the differences between insects and other invertebrates through group activities. They'll get up close with the Museum's live collection and even join a naturalist on a bug hunt.

## GRADES 1-2

### SUN AND MOON, NIGHT AND DAY

#### In the Planetarium

What causes day and night? Why does the moon look different each night? Can we ever see the moon in the daytime sky? Join us in the Planetarium to answer these questions and learn more about the Earth, moon, and sun system!

## GRADES 1-4

### HABITATS OF THE CAROLINAS NEW

Take a journey through the Carolinas from the mountains to the sea. Stop at the Piedmont and coastal plains and visit different habitats along the way. Examine specimens and get to know the animals that call each region home.

## GRADE 2

### ANIMAL LIFE CYCLES

Get introduced to animal life cycles from birth through death. Students will observe animals at different stages in their life cycle using live animals, specimens and interactive stations.

## GRADES 3-4

### ANALYZING ANIMAL ANATOMY

What do we have in common with other animals? How do their bodily systems function? Discover what we have in common with other members of the animal kingdom as well as significant differences that make each species unique.

## GRADE 4

### CAROLINA ROCKS NEW

Although they are found all over the world, the Carolinas have a fantastic assortment of rocks, gems and minerals. We'll examine how rocks are formed and the role erosion and sedimentation play in the process. Students will get their hands on some rocks and minerals and study their properties.

## GRADE 3-5

### EXPLORATION: EARTH AND THE SOLAR SYSTEM

#### In the Planetarium

Become better acquainted with our solar system! Learn about the Earth, moon and sun before further venturing out into the solar system and learning about other celestial bodies.

## GRADE 6-8

### LIFE ON EARTH AND BEYOND

#### In the Planetarium

Dive deeper into the relationship between the Earth, moon and sun and learn how the interactions between these celestial bodies shape our life on Earth. Explore the solar system in the Planetarium and investigate the possibility of life on other planets.

## Ever wonder how to make the most out of your field trip?

We make planning the perfect field trip easy! Educators can preview Discovery Place Nature at no cost.

Reach out to Guest Sales to schedule a preview today 704.372.6261 x300.





## OUTREACH CLASSES

Discovery Place Outreach is a museum-on-wheels, bringing educational science programs to your neighborhood. Outreach programs are designed to meet the age and education requirements of your group and all curriculum aligns with National Science Standards and North Carolina Essential Standards.

 50 minutes

 Dates and times are customizable

 \$150 first class  
\$125 each additional class  
*(same class, same day)*

 Maximum 25 students

### CONDITIONS AND INFORMATION

One designated location is required for visits with multiple programs on a single day.

A mileage fee is applied to all Discovery Place Outreach programs. Mileage is charged at \$25.00 per Mecklenburg County visit (or \$25 per Richmond County visit for programs originating from Discovery Place Kids-Rockingham) and \$.75 per mile for all out of county visits.

A gap fee of \$125 will be charged for every 60-minute gap between programs.

There is a minimum charge of two classes per Outreach visit.

**R** Indicates programs available to originate out of Discovery Place Kids-Rockingham, as well as Discovery Place Science

## GRADES PRE K-2

### ALL ABOUT ANIMALS

Through active exploration, learn how scientists classify animals. Compare characteristics of mammals, reptiles, amphibians, birds and fish.

### DINO TIME

Rediscover dinosaur friends that lived long ago. Journey into the past and explore the time of the dinosaurs with hands-on activities and fossil investigations.

### YOU CAN BUILD IT! **R**

Use the very popular Build It!<sup>®</sup> blocks to work through engineering challenges and create fantastic structures like high rise towers, bridges, pyramids and more.

## GRADES K-2

### TODAY'S FORECAST **R**

Become amateur meteorologists by using weather instruments to gather and analyze data, compare weather patterns and make predictions.

## GRADES 1-2

### SOUND IS VIBRATION

Uncover various ways to create sound while learning about the physical properties of sound including how sound waves travel, pitch and volume.

## GRADES 2-5

### MATTER MATTERS **R**

Investigate the properties of solids, liquids and gases while conducting exciting experiments. Witness instantaneous phase changes featuring liquid nitrogen.

## GRADES 3-5

### ANIMAL EXPLORATIONS

Discover the wonderful world of animals and travel across the planet to discover unique creatures and their relationship to their environment. Investigate the fascinating adaptations that help animals survive in their particular biomes.

# OUTREACH CLASSES CONT.

## CODING ON CANVAS **NEW**

Painting like Pollock has never been so much fun! Program a robot to paint an original work of art. Coding, art and self-expression combine as an introduction to STEAM.

## KEEP IT MOVING **R**

Examine bones, tissues and artificial joints to learn how the muscular and skeletal systems function together to support and protect the human body.

## GRADES 3–7

### FORCES AND MOTION **R**

Newton's Laws of Motion come alive in this class packed with guided-inquiry activities. Make predictions and investigate how changes in mass, force, gravity and friction affect the motion of an object.

## GRADES 3–8

### ACTION REACTION **R**

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.

### DAYLIGHT IN A BOTTLE

Millions of people in developing countries live in small houses with no windows or electricity. Experiment with recyclable materials and various liquids to design an electricity-free way to light houses during the day.

### DESIGN A MAGLEV TRAIN

Magnetic levitation (Maglev) trains are one of the fastest and most energy-efficient forms of travel today. Using the Engineering Design Process, explore this technology by designing and testing a frictionless train model.

## ELECTRIFYING ATTRACTION **R**

Conduct hair-raising experiments with the Van de Graaff generator. Learn how electrically charged objects produce motion. Build circuits and investigate renewable energy sources.

## ROBOTICS ENGINEER

Robots undoubtedly entertain us, but what else can they do? How can they help in the real world? Work with robots to solve a unique challenge that will test not only what a robot can do, but what a human can engineer.

## WIND ENERGY ENGINEER

Harness the power of renewable energy. Design your own turbine blades to rotate with wind power and transfer that energy into electricity! Put your STEM skills and knowledge to the test and use your creativity to design the most efficient solution to this engineering challenge.



## 6 AND 12 WEEK WORKSHOPS

These multi-session programs focus on a single science topic. Workshops are designed to build and enhance the 21st century skills of critical thinking, creativity, collaboration and communication.

 6 or 12 one-hour sessions

 Dates and times are customizable

 Call for pricing

 Maximum 25 students

### GRADES K–2

#### ANIMAL DETECTIVES 6 WEEKS

Uncover clues and learn about the five classes of animals: mammals, reptiles, amphibians, birds and insects. Explore their habitats, survival skills, life cycles and food chains.

#### MINI CSI 6 WEEKS

Become a detective during this crime-busting workshop. Learn investigative techniques including fingerprint analysis, chromatography and chemical analysis to solve a mystery.

#### MINI MAKER 6 WEEKS

Become a maker as you create, build, innovate, push boundaries and problem solve. A series of make projects highlight STEAM concepts, allow for self-expression and foster critical thinking.

#### SUPER STRUCTURES 6 WEEKS

Inspire the engineer within! LEGO® cars, free-standing towers and race boats are used to explore science and math concepts like symmetry, mass, volume, buoyancy and motion.

#### WATER WONDERS 6 WEEKS

Explore the water above, on and below the surface as you dive into water cycles, buoyancy, filtration and pollution, aquatic life and properties of water.

### GRADES K–5

#### ENGINEERING IS ELEMENTARY 6 WEEKS

Explore the Engineering Design Process. Design and build your own solution to a real-world problem. Units include: Designing Bridges, Designing Alarm Circuits, Designing Windmills and more.

### GRADES 3–5

#### ASTRONOMY ADVENTURES 6 WEEKS

Learn about stars, planets and other celestial objects during this astronomical workshop, all while experiencing the excitement of the Starlab inflatable planetarium.

#### CODE KIDS 6 WEEKS

Give your students a boost in learning this in-demand skill. Explore coding basics, including functions, loops, conditionals and de-bugging through both plugged and unplugged activities.

### GRADES 3–8

#### BODY SYSTEMS 6 WEEKS

Explore the amazing human body, inside and out. Discover how systems work together to sustain life. Dissections will provide unique insight into what makes you tick.

#### BRIDGE BUILDING 101 6 WEEKS

Uncover the physics behind forces applied to a bridge as well as how to calculate the strength and weight tolerance of a bridge. Design and build a bridge from balsa wood.

#### FORENSICS CRIME LAB 6 WEEKS

Use cutting edge technology to decipher evidence found at a crime scene. Chromatography, spatter analysis, DNA extractions and weapon matching are just some of the scientific tools available to crime scene investigators.

#### H2OMG 6 WEEKS

Explore the water above, on and below the surface as you dive into water cycles, buoyancy, filtration and pollution, aquatic life and properties of water.



## WORKSHOPS CONT.

### THINK IT, PLAN IT, MAKE IT 6 OR 12 WEEKS

Join the maker movement as you build, innovate, and solve problems. Embark on a series of projects that highlight STEAM concepts, allow for self-expression, teamwork and critical thinking.

### GRADES 4–8

#### ROBOTICS 6 OR 12 WEEKS

Explore the many facets of robotics including programming, debugging and sensors. This workshop will provide opportunities for creative problem solving and collaboration.

### GRADES 5–8

#### OUR CHANGING CLIMATE 6 WEEKS

Explore the causes, effects and solutions through exciting demonstrations, data logging, hands-on activities and a final climate change solution project.

### GRADES 3–12


#### HUMAN & COMPARATIVE ANATOMY 12 WEEKS


Gain an in-depth understanding of the systems of the human body and compare and contrast human systems with comparable animal systems.

## 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

 Dates and times  
are customizable

 \$450 first program  
\$300 each additional program  
(same program, same day)

 Up to 300 students

### GRADES K–8

#### A MATTER OF SCIENCE

Chemistry and physics come alive during this presentation. Wow your students with demonstrations involving combustion, changing states of matter, electricity and liquid nitrogen.

### GRADES 3–8

#### ENERGY, ENERGY, ENERGY!

Without energy, we wouldn't be able to listen to music, play sports or finish our homework. In this assembly, demonstrations illuminate the science behind electrical, chemical and thermal energy.

## STARLAB PLANETARIUM

### GRADES PRE K–2

#### DAY AND NIGHT

Explore our ever-changing sky and learn to recognize differences in the day and night sky including changes in the appearance of the moon.

### GRADES 3–8

#### SOLAR SYSTEM SPECTACULAR

Explore the solar system to learn about the sun, planets, asteroids and moons that make up Earth's neighborhood.

### GRADES 3–5

#### STARRY, STARRY NIGHT

Witness the wonders of the universe in this in-depth look at the relationship between Earth and its nearest neighbor in space. Learn about what causes day and night and changes in the appearance of the moon.


*Note: Starlab Planetarium requires access to electricity and minimum set up space of 11 feet in height and 22 feet x 22 feet in width. Maximum capacity inside the small dome: 30, large dome: 50. The large dome is an additional \$25 per program.*

## EARLY CHILDHOOD CLASS ON A CART

Interactive cart-based programs that move from classroom to classroom.

 \$100 per class

 30 minutes each class

 Maximum 15 students

### GRADE PRE K

#### ANIMAL MANIA

Meet a variety of animal friends, including reptiles, arthropods and amphibians. Live encounters will be enhanced through play with lifelike puppets.

#### BUBBLES, BALLS AND BUOYANCY

Explore buoyancy, motion and gravity through bubbles and hands-on activities with spherical objects.

#### DINOSAUR DAYS

Dinosaur activities for the littlest paleontologist promote motor skills and sensory play while exploring everyone's favorite prehistoric pals.

#### SENSORY SCIENCE


Use your senses to experience the wonders of the world. Play with various sensory materials and watch liquid nitrogen freeze objects, just like one of our favorite princesses.


## FESTIVAL BOOTHS

Festival Booth programs display exciting science topics for visitors to explore at their leisure. Each experience consists of a table staffed by a Discovery Place educator conducting hands-on experiments and demonstrations as well as self-guided learning time. Small groups of visitors will have a brief (5-10 minute) interaction at each booth.

Appropriate for all ages and a great addition to festivals, family nights, school functions and community events.

 1 hour

 Approximately 60 visitors

 \$200 per booth  
\$150 each additional hour  
(same day)

or

**\$750 all day booth set up**  
(six hours maximum)