Teacher’s Guide
2018–2019

FIELD TRIPS on the campus of UNC-Chapel Hill + MOBILE PROGRAMS at your school

Your group may be eligible for a SCHOLARSHIP see page 12
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How to Make a Reservation

Field Trip to Morehead

CHOOSE THE EXPERIENCES YOU WANT FOR YOUR MOREHEAD FIELD TRIP.

- Watch a fulldome show in Morehead's planetarium (see page 2)
- Practice hands-on skills in a discovery class (see page 6)
- Participate in a live Science Stage program (see page 6)

Choose the dates for your Morehead science experiences — a first choice, a second choice and a third choice. Morehead will strive to accommodate your selection, but cannot guarantee availability.

Decide how your group will travel to Morehead.

Submit a field trip reservation form online here: moreheadplanetarium.org/visit/field-trips

DONE!
You should receive an email notice that we have received your request within 15 minutes of submitting the form. A Morehead reservations specialist will contact you to confirm the details and discuss any special requests you may have.

Morehead Mobile Visit at Your School

CHOOSE THE EXPERIENCES YOU WANT FOR YOUR MOREHEAD MOBILE VISIT.

- Watch a fulldome show in Morehead’s mobile planetarium (see page 8)
- Participate in a Science on Your Street visit (see page 8)
- Practice hands-on skills with a Morehead lab educator visit (see page 9)
- Participate in a classroom or afterschool enrichment visit (see page 10)

Decide how your school will accommodate a visit from a Morehead mobile program.

Consider which dates your school would not be able to accommodate a Morehead visit. Based on your response, our outreach team will offer you a selection of potential dates.

Submit a mobile visit reservation form online here: moreheadplanetarium.org/outreach/at-your-school
Planetarium Shows

AT MOREHEAD AND AT YOUR SCHOOL

Surround your students with the sights, sounds and sensations of an extraordinary educational adventure! Each program includes a planetarium show, a question and answer session with a Morehead educator and if time permits, a mini star tour. Some planetarium shows are available with a Spanish language audio track; if needed, please request this one week in advance.

ASTRONAUT
Recommended for grades 4–5 (also suitable for grades 6–12)
Space exploration is the greatest endeavor of humankind. Follow animated astronaut Chad as he takes you from Earth into space ... and beyond. Learn what it means to be an astronaut, including the physicality of launching into space and how weightlessness effects the human body. Discover the perils that lurk in space! Produced by the National Space Centre and narrated by Ewan McGregor.

BLACK HOLES: JOURNEY INTO THE UNKNOWN
Recommended for grade 7 (also suitable for grades 4–6 and 8–12)
Imagine a place where time stands still, where the universal order breaks down, where the unimaginable becomes reality. It’s no longer the stuff of science fiction — this show brings to life all that is fascinating and extreme in the world of black holes! Discover what science has taught us about these phenomena ... and what we must still learn. Produced by Museum Victoria and narrated by Geoffrey Rush.

CAROLINA SKIES
Recommended for grades 3–4 (field trips only), grades 5–12 (field trips & mobile visits)
This show focuses on stars, planets and constellations in our North Carolina sky. The presentation is live, led by a Morehead educator and adapted for different grade levels, so each show is unique! You might learn how to identify celestial objects visible to the naked eye, hear stories created by ancient cultures or explore the Milky Way in an exciting “fly-out” experience that travels through our galaxy and beyond!

COSMIC COLORS
Recommended for grades 2–12
Take a wondrous journey across the entire electromagnetic spectrum. Discover the many reasons for color — like why the sky is blue and why Mars is red. Then journey inside the human eye, investigate x-rays and see the actual color of a dinosaur. Get ready for an amazing adventure under a rainbow of cosmic light! Produced by the Daniel M. Soref Planetarium in cooperation with the Great Lakes Planetarium Association.
PLANETARIUM SHOWS AT MOREHEAD AND AT YOUR SCHOOL

**DYNAMIC EARTH**
Recommended for grades 6–12
Explore the inner workings of Earth’s climate system, following a trail of energy that flows from our Sun. Ride on swirling ocean and wind currents, dive into the heart of a hurricane, come face-to-face with sharks and whales and fly into fiery volcanoes! Produced by Spitz Creative Media in association with the National Center of Supercomputing Applications, Thomas Lucas Productions, Denver Museum of Nature & Science and NASA Earth Science. Narrated by Liam Neeson.

**EARTH, MOON AND SUN**
Recommended for grades 1–4 (also suitable for grade 5)
Learn to distinguish between myths and science in Earth, Moon and Sun. Follow Coyote, a character adapted from Native American oral traditions, and discover misconceptions about our home planet and its most familiar neighbors. Learn the basics of fusion and solar energy and why the Sun rises and sets. Examine the Moon’s orbit, craters, phases and eclipses. Produced by Morehead.

**GALILEO: THE POWER OF THE TELESCOPE**
Recommended for grade 6 (also suitable for grades 4–12)
Travel back in time to witness the earliest experiments of Galileo Galilei, who discovered the four largest moons of Jupiter and made many other significant observations as a scientist and as an astronomer. Understand how the telescope has revolutionized our understanding of the universe. Experience how one person can shape the future of science! Produced by Soref Planetarium and narrated by Dava Sobel.

**GROSSOLOGY AND YOU**
Recommended for grades 3–5 and 7 (also suitable for grades 6 and 8–12)

**THE LITTLE STAR THAT COULD**
Recommended for grades K–2
Follow “Little Star,” an average yellow star, in search of planets of his own to protect and warm. Along the way, meet other stars and learn what makes each star special. Followers of “Little Star” will also get their first look at our Solar System. Created by the Saint Louis Science Center and reproduced by Audio Visual Imagineering and Brevard Community College.

**THE LONGEST NIGHT**
Recommended for grades 1–12
In this timeless fable of courage, generosity and renewal, a young girl leaves her family of traveling storytellers to embark on the quest that leads her to a dragon’s nest. What will she discover there, and how will it help her save a village? Produced by Morehead and featuring Paperhand Puppet Intervention.

**MAGIC TREE HOUSE® SPACE MISSION**
Recommended for grades K–2 (also suitable for grade 3)
Travel with Jack and Annie, stars of the Magic Tree House® best-selling children’s book series, as they search for answers to a mysterious riddle they discover in a written note signed “–M.” Follow them on an exciting adventure as they meet a helpful astronomer and an astronaut. You’ll travel to an observatory and into space. Features Magic Tree House series author Mary Pope Osborne.
**PLANETARIUM SHOWS** AT MOREHEAD AND AT YOUR SCHOOL

**MOVING ALL AROUND**  
Recommended for grades K–2

This live show helps to sharpen students’ observational skills while teaching them about Earth and showing them how to find objects in the night sky. The show’s interactive format encourages questions and allows the Morehead educator to pace the show to the students’ needs.

**PHANTOM OF THE UNIVERSE: THE HUNT FOR DARK MATTER**  
Suitable for grades 9–12

Immerse yourself in the exciting exploration of Dark Matter. This planetarium show journeys across space and time, speeding alongside particles before they collide in a visually stunning explosion of light and sound. Then, learn how scientists around the world are collaborating to track down dark matter... the hunt is on. Narrated by Tilda Swinton with sound by an Academy Award winning team at Skywalker Sound.

**SOLAR SYSTEM ODYSSEY**  
Recommended for grades 3 and 6 (also suitable for grades 4–8)

Animated space explorer Jack Larson and a young stowaway explore our Solar System to find a new home base for humans, investigating the icy rings of Saturn, Jupiter’s volcano-ridden moon Io and the sub-zero methane lakes of Saturn’s moon Titan. Produced by Morehead.

**SURVEYING THE SOLAR SYSTEM**  
Recommended for grades 3–5

This live show provides an exciting ride through our Solar System, with a closer look at Earth and several of its planetary neighbors. The show’s interactive format encourages questions and allows the Morehead educator to pace the show to the students’ needs.

**TAKE FLIGHT**  
Recommended for grades 3–7

Ride along with brothers Wilbur and Orville Wright for an adventure through the history of flight, from Leonardo da Vinci to Chuck Yeager. Learn about the four forces of flight and fly across the Atlantic Ocean with Amelia Earhart! Produced by Morehead.

**WE ARE STARS**  
Recommended for grades 6–12

What are we made of? Where did it all come from? Explore the secrets of our cosmic chemistry, and our explosive origins. Connect life on Earth to the evolution of the Universe by following the formation of hydrogen atoms to the synthesis of carbon, and the molecules for life. Narrated by Andy Serkis.

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1 GROSSOLOGY® is a registered trademark of Price Stern Sloan, a division of Penguin Group (USA) LLC. “Addressing the Science of Really Gross Things: Engaging Young Learners in Biomedical Science Through a Fulldome Show and Supporting Curricula” is supported by a Science Education Partnership Award (SEPA), Grant Number # 1R25OD010522-01, from the National Institutes of Health (NIH). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of NCRR or NIH.

2 The material contained in this planetarium show is based on work supported by the National Aeronautics and Space Administration (NASA) under grant award number NNX09AL78G. Any opinions, findings and conclusions or recommendations expressed in this material are those of the author and do not necessarily reflect the views of NASA.
Field Trips

AT MOREHEAD

From the moment your students arrive, Morehead educators create new and exciting opportunities to engage your students in educational STEM adventures. And there’s a bonus: Morehead’s location on the University of North Carolina at Chapel Hill campus provides a perfect opportunity for your students to imagine themselves as college students.

<table>
<thead>
<tr>
<th>Planetarium Show, Discovery Class or Science Stage Show</th>
<th>Student fee</th>
<th>Adult fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>First show or class</td>
<td>$6.25 per student</td>
<td>$7.25 per adult</td>
</tr>
<tr>
<td>Additional show or class</td>
<td>$4 per student</td>
<td>$4 per adult</td>
</tr>
</tbody>
</table>

Optional Field Trip Additions

| Morehead gift shop souvenir bag                        | $2–7.50 per souvenir bag |

1 Planetarium shows are subject to NC State and Local Sales & Use taxes.
2 If you're interested in lunch for your students, we can put you in touch with one of our partners.

Planetarium Shows Grades K–12

LENGTH: 45 minutes
MAXIMUM CAPACITY: 75 persons per show

Morehead planetarium shows are an exciting way to engage and inspire your students with a love of science. See pages 2–4 for a complete list of planetarium shows for your field trip.

For a detailed list of each show’s correlations with NC Essential Standards for recommended grades, visit moreheadplanetarium.org
FIELD TRIPS AT MOREHEAD

Science Stage Programs Grades K–12

LENGTH: 45 minutes
MAXIMUM CAPACITY: 75 persons per show

Live shows on Morehead's Science Stage captivate students of all ages! Each “Science LIVE!” program engages the audience and asks for volunteers to participate in exciting science demonstrations. Specific demonstrations may vary depending on grade level.

SCIENCE LIVE! PHENOMENAL PHYSICS
In a program that Isaac Newton would have loved to attend we will explore the fundamentals of physics through live experiments. We’ll talk about forces and motion with some Carolina basketball flair, generate thousands of watts of electricity with our hair-raising Van Der Graaff generator, and do the coolest demonstration ever, literally, by observing nitrogen in two phases.

SCIENCE LIVE! UNDER PRESSURE
We put science under pressure in this program. We’ll demonstrate Bernoulli’s principle with a 10-foot-long bag and just your breath, demonstrate how much air weighs by crushing a can, try to burst balloons with hundreds of nails, and make a huge combustion in our “whoosh bottle.”

SCIENCE LIVE! ALL SYSTEMS GO
Our bodies need to be “all systems go” for us to get through each day. Join us to take an in-depth look at hair, skin and fingernails with a digital microscope, create an electrical circuit with your body, ignite a jelly bean to demonstrate metabolism, and test reaction times of your eyes and hands.

SCIENCE LIVE! MAGNIFICENT MATTER
Matter makes up everything, it surrounds you, and can even change its appearance right before your eyes! We will learn about the states of matter, examine some tricky materials that exist between states of matter, make instant “snow,” and cap it all off by observing some colorful combustions using the chemical properties of different elements.

SCIENCE LIVE! SCIENCE SHOWTIME
For the very young scientists of the world (minimum age of 4 years old), we’ll demonstrate some of Morehead’s most exciting science experiments. Participants will learn how we experiment with different materials and see how much fun science can really be in an accessible way.

For a detailed list of each program or class’s correlations with NC Essential Standards for recommended grades, visit moreheadplanetarium.org. Science Stage programs are also suitable for a wide range of age levels and mixed-grade groups.

 Discovery Classes Grades 3–7

LENGTH: 45 minutes
MAXIMUM CAPACITY: 30 students per classroom, two classrooms available

Add an extra dimension to your visit with a hands-on, minds-on Discovery Class led by a Morehead educator.

SOLAR SYSTEMATICS
Recommended for grades 3 and 5–7
What does our Solar System really look like? How do we know? In this hands-on adventure, students become NASA engineers as they design, build and test interplanetary landers that are needed to explore rocky worlds like Mars.

WINGING IT
Recommended for grades 3–7
For years humans dreamed of flying like the birds. And now we can! Join us to test flying machines and investigate the four forces necessary to get humans, birds and other animals off the ground and into the air.

ROUND AND ROUND WE GO
Recommended for grades 3–4
Get ready to move as we explore the relationship between Earth, Moon and Sun in this highly interactive and kinesthetic class. Why do we have day and night? What causes eclipses? We’ll answer these questions and more as we “dance the night away.”
Mobile Programs

AT YOUR SCHOOL

Let Morehead’s mobile programs bring the field trip experience to your school! Your choices include planetarium shows in our mobile planetarium (K–12), real-world science laboratory experiences with our lab educator visits (6–12) or classroom enrichment visits (K–8) filled with hands-on activities and demonstrations with a Morehead educator.

<table>
<thead>
<tr>
<th>Mobile Programs</th>
<th>Base fee</th>
<th>Base time</th>
<th>Extended fee 1</th>
<th>Max. sessions per day</th>
<th>Max. participants per session</th>
<th>Session length</th>
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</thead>
<tbody>
<tr>
<td><strong>Lab Educator Visit</strong></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>One-day school visit</td>
<td>$200</td>
<td>1 day</td>
<td>$150/additional day</td>
<td>3</td>
<td>24</td>
<td>90 min.</td>
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<tr>
<td><strong>Mobile Planetarium Visit</strong> 2</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>One-day school visit</td>
<td>$425</td>
<td>1 day</td>
<td>$150/additional day</td>
<td>4</td>
<td>30</td>
<td>24</td>
</tr>
<tr>
<td>Weekend/evening visit</td>
<td>$350</td>
<td>2 hours</td>
<td>$75/additional hour</td>
<td>1</td>
<td>30</td>
<td>24</td>
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<tr>
<td><strong>Classroom Enrichment Visit</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>One-day school visit</td>
<td>$250</td>
<td>1 day</td>
<td>$150/additional day</td>
<td>3</td>
<td>30</td>
<td>60–75 min.</td>
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<tr>
<td><strong>Afterschool Enrichment Visit</strong></td>
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<tr>
<td>One-day afterschool visit</td>
<td>$150</td>
<td>2 hours</td>
<td>$75/additional hour</td>
<td>4</td>
<td>20</td>
<td>30–60 min.</td>
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<tr>
<td><strong>Science on Your Street Visit</strong></td>
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<td></td>
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</tr>
<tr>
<td>One-day visit</td>
<td>$375</td>
<td>1 day</td>
<td>$300/additional day</td>
<td>3</td>
<td>30</td>
<td>75-90 min.</td>
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<tr>
<td>One-day afterschool visit</td>
<td>$275</td>
<td>2 hours</td>
<td>$75/additional hour</td>
<td>2</td>
<td>30</td>
<td>60 min.</td>
</tr>
<tr>
<td>Weekend/evening event</td>
<td>$300</td>
<td>2 hours</td>
<td>$75/additional hour</td>
<td>1</td>
<td>2</td>
<td>2 hours</td>
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<tr>
<td><strong>Required Travel Fees</strong> 4</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Within 90-mile radius of Chapel Hill</td>
<td>$50</td>
<td></td>
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<tr>
<td>More than 90 miles from Chapel Hill</td>
<td>$200</td>
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</tr>
</tbody>
</table>

1. If you need more than the maximum sessions per day to serve your students, please extend your reservation by adding consecutive days or hours (depending on program). The “Extended Fee” is your discounted cost for any consecutive days or hours you add.
2. Mobile planetarium visit fees are subject to NC State and Local Sales & Use taxes applicable to the county in which the visit occurs.
3. Mobile planetarium capacity varies by age group. The mobile planetarium can also accommodate two adults in addition to student participants.
4. Distances are calculated with the Google Maps application.
Mobile Planetarium Visits Grades K–12

LENGTH: 60 minutes
MAXIMUM CAPACITY: 30 students in Grades K-3 | 24 students in Grades 4-7 | 20 students in grades 8-12

Morehead can bring its planetarium shows to you! Our mobile planetarium is an inflatable dome with a digital projection system that creates the fulldome experience at your school. The mobile planetarium can accommodate wheelchairs and one teacher must accompany the students inside.

To accommodate the mobile planetarium, you must have a site with these requirements:

- Quiet indoor room (if the mobile planetarium will be in a gym or play space, please arrange for other activities to be moved outside or to another room)
- Minimum clear floor space of 30 feet by 30 feet
- Minimum ceiling height of 13 feet with no obstructions (hanging light fixtures, fans, etc.)
- Two grounded 120-volt standard electric outlets
- Clean, swept floor
- Adjustable lighting, if possible
- Air conditioning for visits occurring May–September

Priority scheduling is given to schools 90 miles outside of Chapel Hill or schools in Tier 1 counties.

See pages 2–4 for a complete list of Morehead’s currently available planetarium shows — any show with the icon can come to your school.

Science on Your Street Grades K–8

LENGTH: 60-120 minutes (see chart on page 7 for details)
MAXIMUM PARTICIPANTS: 30 students for school visits

This Morehead educator-led program will challenge your students to innovate with hands-on science experiences and cutting edge technology. With the GSK Science on Your Street educational vehicle, we can set up a classroom anywhere — from the gym to the parking lot! SOYS activities are standards-aligned and recommended for specific grade levels. However, the program may be adapted for high school students, afterschool groups as well as special events such as festivals and science nights. Activities for grades K-3 will be added to our website soon.

UPGRADE YOUR HABITAT
Recommended for grades 4–8

Learn about circuits and use Little Bits to mimic household appliances and tools. Design your own Little Bits invention.

COSMIC CODING
Recommended for grades 4–8

Journey through space and time to learn about scientists from different backgrounds who helped explore our solar system and beyond! Use a Sphero robot to chart your own course and practice coding.

CHARIOT RACES
Recommended for grades 4–8

Discuss the use of chariots in different cultures throughout history before designing and building your own. Drive a Sphero robot to test the efficiency of your chariot.

MISSION: INTERNATIONAL SPACE STATION
Recommended for grades 6–8

Simulate an astronaut team’s extravehicular mission (EVA) outside of the International Space Station. Discuss the importance of robots. Design a robot model for use in outer space.
MOBILE PROGRAMS AT YOUR SCHOOL

MOBILE PROGRAMS AT YOUR SCHOOL

Lab Educator Visits Grades 6–12

LENGTH: 90 minutes
MAXIMUM PARTICIPANTS: 24 students

After over a decade of traveling the state to bring unique lab experiences to students and the community, the mobile lab buses are retiring! However, students are still able to receive a similar lab experience in their classroom through a lab educator visit. With our lab educator visits, students will discover what it’s really like to have a science career.

CODE RED (SIMULATED BLOOD TYPING)
Recommended for 7th grade science, forensics courses, biology, anatomy and physiology, allied health courses

Learning the composition and physiology of blood has never been more exciting! Examine the genetic and cellular basis of blood types and understand the importance of blood typing for transfusions. Finally, test simulated blood samples on our mobile lab to determine safe transfusions.

GENES IN A BOTTLE (DNA EXTRACTION)
Recommended for 7th and 8th grade science, biology

Discuss cell structure and function before we extract DNA from your own cheek cells using a simple laboratory procedure and watch it precipitate from solution as floating white strands.

SO FRESH, SO CLEAN (WATER TREATMENT)
Recommended for 7th and 8th grade science, chemistry, earth/environmental science, and biology

Investigate water chemistry and purity with ‘So Fresh, So Clean.’ We’ll discuss pH to see the connections between water, acid/base chemistry and life. Then, we’ll simulate part of the water treatment process by monitoring and altering the pH of a sample of water.

EXPLORING NEW ENVIRONMENTS (FIELD EXPEDITION)
Recommended for biology, earth/environmental science and 6th, 7th, and 8th grade science

This module is only offered in September, October, April and May. Investigate complex relationships between organisms and the physical and biological environment, as well as the movement of energy and materials within an ecosystem.

GET A CLUE (GEL ELECTROPHORESIS)
Recommended for biology and forensic science courses (not recommended for middle school)

Personify forensic scientists to analyze drops of “blood” and other evidence found at crime scenes and determine which suspects are guilty by using DNA restriction analysis (popularly known as DNA fingerprinting).

MYSTERY OF THE CROOKED CELL (GEL ELECTROPHORESIS)
Recommended for biology, anatomy and physiology, and allied health courses (not recommended for middle school)

Discover the molecular basis of sickle cell disease and use gel electrophoresis as a diagnostic tool to differentiate normal hemoglobin from hemoglobin found in individuals with sickle cell disease. Module developed by Boston University School of Medicine CityLab.

BIOLOGICAL BODYGUARDS (ELISA TEST)
Recommended for biology, applied science, anatomy and physiology, allied health, and 7th and 8th grade science

Students will use an Enzyme Linked Immunosorbent Assay (ELISA) to test for a simulated antigen with antibodies. This lab can be used to model how those in science and medical careers use this process to screen hypothetical patients for disease, test water samples for toxins, or another narrative that you request.
MOBILE PROGRAMS AT YOUR SCHOOL

Classroom Enrichment Visits

Grades K-8

Morehead educators are available to visit your school to talk about science topics, lead hands-on activities or demonstrations and/or provide a tabletop STEM activity for an evening event. These visits are aligned to NC Essential Standards and can be tailored to fit your grade-level needs. These enrichment visits are classroom presentations; they do not include a visit from Morehead’s mobile lab or mobile planetarium. Specific activities may vary depending on grade level.

ADAPTATION 101
Recommended for grades K-2, 4-5, 7
Discover specific animals and the adaptations they need to survive in their unique habitat. Younger students will focus on how animals differ from one another and what they need from their habitats. Older students will discuss how animals are well adapted to their environments, how those adaptations are linked to genetic inheritance, and how variation within the species can allow for a species to respond to a changing habitat. No live animals are involved in this presentation.

CHEM-MESS-TRY
Recommended for grades 2–3, 5–8
Examine matter and manipulate it using chemistry. Younger students will witness a series of exciting demos to explore the three phases of matter and how we use energy to transition between them. Older students will discuss physical and chemical change before going through the signs of a chemical reaction through demonstrations and a hands-on experiment.

NEWTON IN MOTION
Recommended for grades K-1, 3–5, 7
Investigate the laws of physics and their impact on the world around us. Students will discuss force and motion before learning about Newton’s laws through demonstrations and hands-on experiments. This knowledge may be applied to simple machines or examples of modern technologies to show the importance of physics in everyday life.

STAR POWER
Recommended for grades 1, 3-4, 6–7
Explore our planet and its role in our solar system. Younger elementary students will review the other planets in the solar system, as well as how Earth’s own movement creates night and day, seasonal starry skies and changing Moon phases. Older students will review the solar system and realize the role of scientists at NASA in exploring our own planet and our neighboring planets.

WEATHER WISE
Recommended for grades 4–5, 7
Discover the scientific concepts surrounding weather including how we study, track, and predict changes in the atmosphere. Students will review the water cycle through a kinetic game before discussing cloud and storm formation through exciting demonstrations. Students will realize the impact of energy moving throughout our atmosphere and explore the science behind weather-tracking technology.

Afterschool Enrichment Visits

Does your school provide afterschool care? Our Classroom Enrichment Visits can be adapted for afterschool groups that include several different grade levels!

These afterschool sessions are a fun way to provide STEM enrichment to your program. Please let us know if your program has more than 20 participants so that we may accommodate a larger group.

Morehead’s mobile planetarium is also available for afterschool program. Please note, an “evening/weekend” event fee applies for any mobile planetarium visit occurring after regular school hours.
The North Carolina Science Festival — founded by Morehead in 2010 — is an annual celebration of science, with hundreds of fun (and usually free) events all over the state! The next Festival is scheduled for April 2019. All events will be listed on the North Carolina Science Festival website: ncsciencefestival.org

As part of the North Carolina Science Festival, Morehead invites teachers to submit applications for the Festival’s K–12 initiatives. If your application is selected, you’ll receive free resources to conduct activities for your students in March or April 2019.

The Festival will accept applications Aug. 1–Sept. 30, 2018.

To access the online application, visit: ncsciencefestival.org/k-12-opportunities

### Special Opportunities

**DUKE ENERGY SCIENCE NIGHTS**  
Grades K-5

The Festival team distributes event kits, designed to help you host a fun family science night for your students and their families, to more than 100 schools. Each kit includes a planning guide, 10 hands-on activities and all materials for up to 200 participants.

Elementary schools, afterschool groups, PTAs and upper-level schools interested in hosting for their local elementary school students are welcome to apply.

**NOVOZYMES SCIMATCH**  
Grades 6-8

The Festival team recruits dynamic and dedicated scientists from academia and industry to share their excitement about science with middle school students. Each visit is designed to inspire your students to consider science careers and to engage them in a fun, hands-on activity.

Middle school educators are welcome to apply for a visit from a scientist to their classes. Visits may be in person or via Skype.

**SCIENCE SPOTLIGHT**  
Grades 9-12

Science Spotlight is designed to expose your students to current science and civic issues through research and deliberation. The program consists of student preparation, a Socratic seminar style classroom discussion, an optional expert visit (in-person or virtual), and reflection activities.

High school level teachers of all subjects are welcome to apply for this interdisciplinary program.
SPECIAL OPPORTUNITIES

Morehead Souvenir and Gift Bag Program

Do you want to make sure all your students have a souvenir from Morehead? No worries! Our Gift Bag options contain some of the most popular items from the store, handpicked by us. Simply choose the option you want on your field trip form or mobile outreach form!

<table>
<thead>
<tr>
<th>Gift Bag</th>
<th>Items</th>
<th>Price</th>
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<td>Basic</td>
<td>Pencil, Magnet</td>
<td>$2 each</td>
</tr>
<tr>
<td>Plus</td>
<td>Pencil, Magnet, Pocket Notes</td>
<td>$4.50 each</td>
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<tr>
<td>Deluxe</td>
<td>Pencil, Magnet, Pocket Notes, Key Chain, Astronaut Ice Cream</td>
<td>$7.50 each</td>
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Scholarships

Morehead’s mission is to spread science education throughout the state of North Carolina. Through the help of our generous donors we are able to offer scholarships for both field trips and mobile outreach visits to your area! Your school may qualify for scholarship assistance. You will have the option to request scholarship funding when you complete your online reservation form.
Do your programs line up with my curriculum?
Our grade level recommendations for each program and planetarium show are based on NC Essential Standards correlations. We also deem shows suitable for varying grade levels based on age group. Please visit Morehead’s website for a detailed list of each program’s correlations with NC Essential Standards.

My students are studying science topics that aren’t covered by your current programs. Can you still help us?
If you have a special curriculum need for your school or afterschool program, please let us know! Morehead is continually expanding its program choices, and our educators may be able to help you meet special needs.

Do you offer professional development opportunities?
Morehead educators present workshops at various state conferences each year. **Look for us during Fall 2018 at NCSTA and Bridging the Gap conferences.**

Are your programs available in different languages?
All Morehead programs are available in English. Some planetarium shows are also available with audio tracks in Spanish. (Look for the [ ] icon on the planetarium show listings, pages 2–4.) Please request this at the time you make your reservation.

Are your programs accessible to persons with disabilities?
At Morehead, GSK Fulldome Theater and Science Stage are both accessible by ramp and offer assistive listening devices. Before each visit, mobile program educators will work with teachers to ensure the learning experience supports their students’ needs. The mobile planetarium walls can be lifted for wheelchair access. Please contact Morehead’s guest relations manager at 919-962-1236 for additional information.

Can each person pay individually?
To offer group pricing, Morehead requires a single payment by check or credit card (MasterCard or Visa) from the school. You will receive an invoice in advance, confirming the total participants and the amount due. For a field trip at Morehead, payment is due by the day of your visit. For a mobile visit at your school, payment is due 10 days in advance.

May a charter operator make arrangements for our field trip?
Morehead policy requires that we communicate directly with an official representative of the school. If a third party (charter operator, travel agent, other trip planner) who is not a school employee makes arrangements for a field trip, the third party is responsible financially, and the third party must submit full payment at least two weeks in advance of the field trip.

The number of people in our group has changed. What do we do?
If you need to make changes to your reservation, please contact us at least 72 hours before a field trip at Morehead or 7 days before a mobile visit at your school. If you have fewer people without providing the minimum notice, your school is still financially responsible for the full cost of your original reservation. If you have more people without providing the minimum notice, Morehead cannot guarantee their participation. In case of inclement weather, we will work with you to reschedule your program with no penalty.

MORE QUESTIONS?
Visit our website: moreheadplanetarium.org or call our front desk at 919-962-1236.