

Registration: \$25 non-refundable fee and is open until filled!

Morehead Planetarium and Science Center

2014 TEACHER WORKSHOPS

What is DREAMS?

DREAMS (DESTINY'S Role in Engaging and Advancing Middle School Science) is a formal science education program serving middle school teachers and students in grades 7-8 across North Carolina. DREAMS is inspired by Morehead's DESTINY Traveling Science Learning Program, which has been serving North Carolina's high school teachers and students since 2000.

DREAMS began in 2008 to expand the impact of DESTINY to reach middle school teachers and students with opportunities similar to those provided by DESTINY.

DREAMS follows the mission of DESTINY: To promote equity of access to quality science learning opportunities in order to increase interest, ensure understanding and demonstrate the relevance of science to all students' lives.

What is DESTINY?

DESTINY (Delivering Edge-Cutting Science, Technology and Internet Across North Carolina for Years to Come) is a formal science education program, serving pre-college teachers and students in grades 9-12 across North Carolina. DESTINY develops and delivers a standards-based, hands-on curriculum, professional development opportunities for teachers; and enriched learning for students who might not otherwise be able to experience what jobs in science, biotechnology, health and related fields can offer them.

DESTINY was created by the University of North Carolina at Chapel Hill in 2000. Since 2006, it has operated as an outreach program of UNC's Morehead Planetarium and Science Center.



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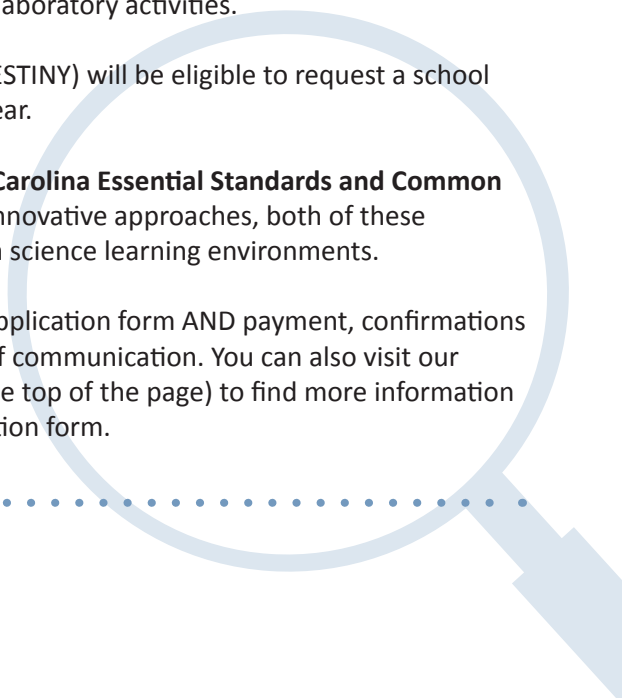
* Both DREAMS and DESTINY programs are enhanced by two mobile science laboratories which are fully equipped 40-foot, 33,000-pound buses that can accommodate 24 students for hands-on laboratory activities.

Each teacher who completes a Morehead workshop training (DREAMS or DESTINY) will be eligible to request a school visit from the grade appropriate program during the 2014-2015 academic year.

All developed DREAMS and DESTINY activities are aligned with the North Carolina Essential Standards and Common Core at the appropriate grade level. Through the creation and delivery of innovative approaches, both of these programs seek to empower teachers, schools and communities to transform science learning environments.

The workshop non-refundable registration fee is \$25. Upon receipt of the application form AND payment, confirmations for these workshops will be sent via email, which will be the primary form of communication. You can also visit our website at www.moreheadplanetarium.org (look for the Outreach tab at the top of the page) to find more information on Morehead Professional Development as well as to download the application form.

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At the completion of the Morehead workshops, all participating teachers will be provided with a resource kit and curriculum guide notebook that will enable them to conduct the specific module related activities in their classrooms with their students. A certificate for one (1) CEU credit, lunch and snacks will also be provided at the workshop.

CONTACT:

Crystal Harden Adams, Director External Programs -
cadams@unc.edu
or 919-843-8496

Cathy Pike Oakes, Science Education Specialist -
cpikeoakes@unc.edu
or 919-843-9036

Please complete or download the workshop application form, save it, and email it as a Word attachment directly to moreheadworkshops@unc.edu.
Instructions for payment are on the application form.

Morehead Planetarium and Science Center 2014 TEACHER WORKSHOP DESCRIPTIONS



Grades 7 – 8: DREAMS

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“CODE RED” (7) - Students learn about the composition and physiology of blood through a series of hands-on activities. By analyzing the components of a scab, students identify the substances comprising human blood. They analyze the genetic and cellular basis of blood types, and they see the real-life importance of blood types during transfusions. A final lab experience lets students test simulated blood samples to determine safe transfusions. (This module aligns with objectives from the North Carolina Essential standards for 7th grade science.)

Grades 7 – 8: DREAMS or Grades 9 – 12: DESTINY

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“WHAT’S SNOT TO LIKE? Exploring the Respiratory and Immune Systems Through Mucus” - Students will learn about the effects of mucus in our respiratory system, the physical properties of mucus and how it lubricates the gastrointestinal tract, and also how respiratory mucus is moved up and out of the lungs to dispose of trapped particles. A discussion and modeling activity for Cystic Fibrosis will be included. The lab experience included in this module will be the “ELISA” Immunology testing process. (This module aligns with objectives from the North Carolina Essential Standards for 7th grade science, 8th grade sciences, and 7th Grade Heathful Living. This module could also meet standards for high school Allied Health, Biology, AP Biology and Medical Sciences.)

Grades 9 – 12: DESTINY

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“CRUCIAL CONCENTRATION” – Students assume the role of laboratory investigators for a court case to determine the amount of protein found in three sports drinks. Using the general concept of the Lowry Assay and microanalysis skills, students learn how to use a spectrophotometer, measure absorbencies, collect quantitative data and produce a standard curve to find the protein content in each sample. *(This is a Boston University School of Medicine Citylab module.* This module aligns with The North Carolina Essential Standards for high school Chemistry and AP Chemistry, as well as meeting objectives for Physical Science.)

MOREHEAD

PLANETARIUM AND SCIENCE CENTER

2014 TEACHER PROFESSIONAL DEVELOPMENT WORKSHOP APPLICATION FORM

Name		Current Certification	
Home Address		School Name	
City		School Address	
State		City	
Zip Code		Zip Code	
Home Phone Number		School Phone Number	
Cell Phone Number		School System/County	
Primary E-mail Address		Grade(s) You Teach	
Secondary E-mail Address		Subject(s) You Teach	

Please designate workshop preference by indicating your first choice with the number "1", number "2" for your second choice, etc.

**** If you would like to attend more than one workshop (space permitting), please submit a separate teacher workshop application for each session ****

GRADES 7 – 8: *DREAMS*

	Tuesday July 15	"Code Red" (time will be 9:00am – 2:00pm)	UNC Institute of Marine Sciences Morehead City, NC <i>(hosted by UNC Institute of Marine Sciences)</i>
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GRADES 7 – 8 *DREAMS* OR GRADES 9 - 12: *DESTINY*

	Tuesday July 22	"What's Snot To Like?" (time will be 10:00am – 3:00pm)	Audrey W. Garrett Elementary School Mebane, NC <i>(hosted by Alamance County School System)</i>
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GRADES 9 - 12: *DESTINY*

	Tuesday July 29	"Crucial Concentration" (time will be 9:00am – 2:00pm)	Mills River Academy Mills River, NC <i>(hosted by Henderson County School System)</i>
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ALL MODULES MEET REQUIREMENTS FOR A SCHOOL MOBILE LAB VISIT.

WORKSHOP REGISTRATION WILL BE CONFIRMED ONCE THE \$25 REGISTRATION FEE HAS BEEN RECEIVED.

Space is limited in each workshop.
Therefore, registration is open until filled.

E-mail your completed application form
as a Word attachment to:
moreheadworkshops@unc.edu

PLEASE MAIL CHECKS PAYABLE TO:

*(*Note workshop location & date on check*)*
Morehead Planetarium and Science Center
UNC Chapel Hill
1700 MLK Jr. Blvd, Suite L22, CB#7448
Chapel Hill, NC 27599
Attn: 2014 Summer Workshops