

SCIENCE FESTIVAL™



the nation's
first statewide
science festival



proudly produced by



2010 final
report

December 2010

Dear friends,

The authors James Collins and Jerry Porras introduced the concept of the strategic, emotionally-compelling Big Hairy Audacious Goal ("BHAG"), defining a true BHAG as a goal that is "clear and compelling, serves as a unifying focal point, and acts as a clear catalyst for team spirit." The idea of creating the nation's first statewide science festival was truly a BHAG when the idea started to take shape in late 2009. But from Orville and Wilbur's first flight to our basketball teams, North Carolina takes pride in being first. And as we introduced the idea of the North Carolina Science Festival, North Carolina responded enthusiastically. From elementary school students to transnational corporations, we found partners and supporters around every corner and an appetite for science that heartened us.

First, **our state's business community immediately saw the Festival's value and provided sponsorship dollars that helped us deliver a high-quality program of events.** Without our sponsors, we would not have been able to present the Festival. All of our sponsors are very important to us, but we think that the Burroughs Wellcome Fund, SAS and Time Warner Cable & News 14 Carolina deserve special recognition for having the faith in our vision to become Platinum Sponsors in the very first year.

We also have to **commend all of the partners that offered events during the Festival's 16-day run.** The Festival's 78 program partners combined to offer more than 400 events - many of them unique events created specifically for the North Carolina Science Festival.

And **we have to recognize our state for supporting science and the North Carolina Science Festival.** More than 85,000 people attended events as varied as BugFest 2010 at the North Carolina Museum of Natural Sciences, "An Afternoon With Adam and Jamie" in Chapel Hill, a Family Science Night at Marion Elementary School and "coffee cupping" in Charlotte.

We also have to **thank all of the people on the UNC-Chapel Hill campus who were so generous with their time and resources.** Chancellor Holden Thorp provided seed funding to help get the Festival going. Angie Bitting and the Smith Center staff went above and beyond the call of duty to help us present "Adam and Jamie." And there were hundreds of faculty, staff and students who offered their time and talents to the effort.

We achieved our first BHAG - producing the nation's first statewide science festival. But we're not done yet. We will learn from this inaugural event and make the next one better as a result. It is our vision that, over time, the North Carolina Science Festival will become as much a part of the fabric of our state as the North Carolina State Fair. And **our next BHAG is even bigger, even hairier and even more audacious: attract one million people to science festival events annually by 2020.**

However, no matter how big the event grows, you will always be an important part of the North Carolina Science Festival because you were there in the beginning.

With sincere gratitude,

Todd Boyette
Festival Co-Founder

Denise Young
Festival Co-Founder

James Moeser
Board of Advisors Chair



85,860

total attendance at NC Science Festival events

16

days in first NC Science Festival (Sept. 11-26, 2010)

413

individual events (including repeat sessions)

174

unique events

78

program partners

111

unique events in the Piedmont

sept

"STEM Education Month," proclaimed by Gov. Perdue

38

unique events in the Mountains

17

total number of sponsors

25

unique events in the Coastal Plains

>> sponsors

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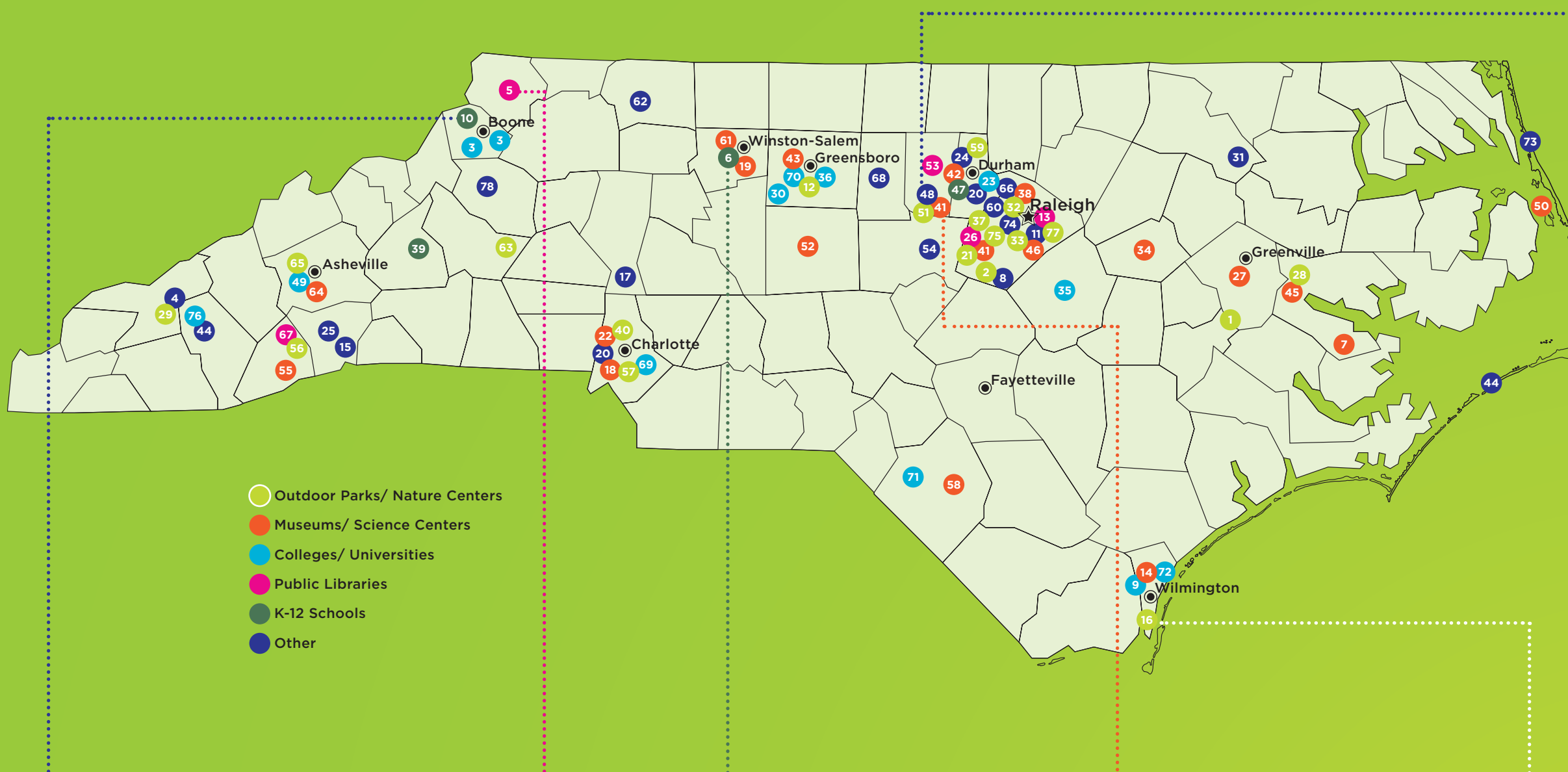
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ON THE COVER (clockwise from the top): STEMulating the Mind, UNC Science Expo, BugFest 2010, "An Afternoon With Adam and Jamie," UNC Science Expo, Beer Tasting, "An Afternoon With Adam and Jamie."



- Outdoor Parks/ Nature Centers
- Museums/ Science Centers
- Colleges/ Universities
- Public Libraries
- K-12 Schools
- Other

48 nc science challenge



Encouraging a passion for science is a key component of the Festival's mission. That passion was on full display during the N.C. Science Challenge in **Chapel Hill** as more than 500 students put their problem-solving skills and creativity to the test.

The students, from grades 3 through 10, worked either individually or in small groups on a variety of science, mathematics or engineering challenges. From developing containers to keep eggs safe during a fall from a second-floor balcony to constructing musical instruments with circuitry kits, the activities challenged students to think and act like scientists.

Their ideas were then tested, and students received feedback that could be used to improve their designs. Every participant received a certificate of participation, and medals were awarded to top designs.

The Challenge took place on Saturday, Sept. 25 as part of the UNC Science Expo. This all-volunteer effort consisted of individuals and representatives from many area corporations, universities and non-profits such as North Carolina Science Olympiad, Odyssey of the Mind, NC DOT Bridge Building Competition, F.I.R.S.T. and SAS. Volunteers developed the challenges, staffed the activities and served as judges. The Challenge will grow in future years to include more students and challenges, as well as to provide teachers year-round support to incorporate challenge-type activities in their classrooms.

10 weather balloons



75 people attended the launch of a weather balloon in **Boone** on Sept. 23. The launch was part of the grand opening activities of the AppalAIR, an interdisciplinary air quality and climate research initiative.

5 sound off!



The Science Festival offered a variety of events for a wide range of ages. At the Ashe County Public Library in **West Jefferson**, 58 youngsters heard stories about the wondrous sounds that animals make on Sept. 23.

6 STEMulating the mind



Students and staff at Atkins Academic & Technology High School in **Winston-Salem** organized an evening of science, technology, engineering and mathematics (STEM) activities. 125 children and adults discovered how much fun STEM can be Sept. 14.

41 adam & jamie



Almost 6,000 people turned out for "An Afternoon With Adam and Jamie," in **Chapel Hill** on Sept. 19 for one of the festival's signature events. The duo wowed the crowd with stories from behind the scenes of their popular show, "Mythbusters."

16 river exploration



Smaller, more intimate events also played an important role in the first North Carolina Science Festival. On Sept. 26, five people joined a park ranger for a river exploration hike at the Carolina Beach State Park in **Carolina Beach**.

Number> Host Organization, Event City, Title.

1> A Time for Science, Grifton, Fall Equinox Party.

2> Agape Center for Environmental Education, Fuquay-Varina, ACE Ed-Ventures, Project Learning Tree Workshop, Saturday Safari.

3> Appalachian State University Dept. of Chemistry, Boone, Chemistry Demo Show, David Easterling Lecture, Forensic Science: It's Not Like CSI, Lorna's Sun Bottle, Weather Balloon Launch.

3> Appalachian State University Dept. of Physics and Astronomy, Boone, Appalachian Science Expo, ASU Physics Demo Show, Lunar Observing at ASU's Rankin Observatory, Stargazing at ASU's Dark Sky Observatory.

3> Appalachian State University Mathematics and Science Education Center, Boone, Theories, Laws, Hypotheses, or Facts: What difference does it make in science and why should you care?

4> Appalachian Sustainable Agriculture Project, Whittier, Farm to School Workshop.

5> Ashe County Public Library, West Jefferson, Sound Off, Spectacular Science, Zoomers.

6> Atkins Academic & Technology High School, Winston-Salem, STEMulating the Mind.

7> Aurora Fossil Museum, Aurora, Creatures of the Ancient World.

8> Aviator Brewing Company, Fuquay-Varina, Brewery Tour.

9> Beaufort County Community College, Wilmington, The Guilty Strawberry.

10> Bethel Elementary School, Sugar Grove, Weather Balloon Release.

11> Big Boss Brewing Co., Raleigh, Brewery Tour.

12> Bur-Mil Park, Greensboro, Recycling, Rocks and Minerals.

13> Cameron Village Regional Library, Raleigh, All About Bees.

14> Cape Fear Museum of History and Science, Wilmington, Cape Fear Skies: Deep Sky Objects, N.C. Shell Show, Ocean Adventure.

15> Carl Sandburg Home National Historic Site, Flat Rock, Fall Into the Farm with Sandburg & Lincoln.

16> Carolina Beach State Park, Carolina Beach, Animals of the Park, Carnivorous Plant Hike, Poisonous Plants and Animals, River Exploration Hike.



46 bugfest 2010

17> Carolina Beer Company, Mooresville, Carolina Beer Tastings.

18> Charlotte Nature Museum, Charlotte, Rat Tales at the Charlotte Nature Museum.

19> Children's Museum of Winston-Salem, Winston-Salem, Wiggly Worm Wednesday.

20> Counter Culture Coffee, Charlotte & Durham, Counter Culture Coffee Cupping.

21> Crowder District Park, Apex, Nature Friends Program: Fish, Nature Watchers Program: Fish.

22> Discovery Place, Charlotte, A World Apart, Explore More Life Lab at Discovery Place, Sub Zero, What's Glowing On?

23> Duke University Center for Science Education, Durham, Seminar with Ira Flatow.

23> Duke University Visualization Technology Group, Durham, Envisioning the Invisible: Mahato Memorial Event.

24> Duke Homestead State Historic Site and Tobacco Museum, Durham, Tobacco Harvest and Arts Festival.

25> Environmental and Conservation Organization, Hendersonville, Big Sweep Community Stream Cleanup Day, Guided Bird Walk.

26> Eva Perry Regional Library, Apex, Metal Rocks!

27> GO-Science and East Carolina University, Greenville, Eastern Region N.C. Science Festival.

28> Goose Creek State Park, Washington, Snake of the Month, Wonderful Wetlands Hike: Mallard Creek, Wonderful Wetlands Hike: Palmetto Boardwalk.

29> Great Smoky Mountains National Park, Bryson City, Citizen Ash Tree Mapping.

29> Great Smoky Mountains National Park, Cherokee, Trails Forever National Public Lands Day Trailwork Event, Trails Forever Volunteer Trail Workday.

30> Guilford Technical Community College, Jamestown, Cline Observatory Public Night, GTCC Science Festival.

31> Halifax County Convention and Visitors Bureau, Scotland Neck, Birds of the Roanoke Valley.

32> Historic Oak View County Park, Raleigh, Storytelling Festival.

33> Historic Yates Mill County Park, Raleigh, From Field to Food: A Fall Harvest Celebration, Nature Watchers: Rockin Roly Pollies, The Miller's Apprentice Program: Hand-Mills and Millstones, Yates Mill Corn Grinding Demonstrations, Yates Mill Heritage Tours.

34> Imagination Station Science Museum, Wilson, September Fall Fun! Physics Mania.

35> Johnston Community College, Smithfield, Fun Science.

36> Joint School of Nanoscience and Nanotechnology - N.C. A&T and UNC-Greensboro, Greensboro, The Impact of Nanoscience on Our Daily Lives.

37> Lake Crabtree County Park, Morrisville, Beautiful Butterflies, Crabtree Casters, Outdoor Survival Skills, Sunset Canoe Trip.

38> Marbles Kids Museum, Raleigh, Gadgets & Gizmos, Science Solvers: Bone Detectives.

39> Marion Elementary School, Marion, Family Science Night.

40> McDowell Nature Center, Charlotte, Autumnal Equinox, Backyard Gardening: Native Trees and Shrubs, Citizen Science: Weed Warriors, Explore

McDowell: Guided Nature Hike, Family Campfire, Home School Series: Orienteering, Live Animal Talk, Moonlight Paddle, Nature at Night Hike, Trail Hike Series: Prairie Wanderings.

41> Morehead Planetarium and Science Center, Chapel Hill, 10 Americans: An Evening with Ken Cook, An Afternoon with Adam & Jamie, Beginning Skywatching, Current Science Forum, Meet-a-Scientist Brown Bag Lunch & Learn, Families: Fall Skies, Starry Nights: Fall Skies, The Truth Behind 2012 Panel Discussion, UNC Science Expo.

41> Morehead Planetarium and Science Center, Apex, Skywatching Session.

42> Museum of Life and Science, Durham, Child Passenger Safety Awareness Day, Heroes, Villains, and Special Effects, Periodic Tables, Senior Day: A Day of Senior Silver Science, The Science of Beer.

43> Natural Science Center of Greensboro, Greensboro, Snaketacular.

44> N.C. Center for the Advancement of Teaching, Cullowhee, Mission to Mars.

44> N.C. Center for the Advancement of Teaching, Ocracoke, The Age of Sail, The Landscape of Democracy: Our National Parks.

45> N.C. Estuarium, Washington, N.C. Estuarium River Roving Tours.

46> N.C. Museum of Natural Sciences, Raleigh, BugFest 2010, Meet the Animals, Science Cafe Raleigh, Storytime.

47> N.C. School of Science and Math, Durham, Baba Brinkman: The Rap Guide to Evolution, Chemistry in Comics.

48> N.C. Science Challenge, Chapel Hill.

49> N.C. State University Science House, Raleigh (Event held in Asheville), Science in the Park.

50> N.C. Aquarium on Roanoke Island, Manteo, Live Animal Encounter, Science on a Sphere Program.

51> N.C. Botanical Garden, Chapel Hill, Guided Tour of the Display Gardens.

52> N.C. Zoo, Asheboro, Animal Encounters, Family Fun Day: Project Nature's Art, Great Apes.

53> Orange County Main Library, Hillsborough, Library Science Demonstration, Animal Tracks and Signs, Reptiles and Amphibians.

54> Piedmont Biofuels, Pittsboro, Tours of the Eco Industrial Park

55> Pisgah Astronomical Research Institute, Rosman, International Observe the Moon Night.

56> Pisgah Center for Wildlife Education, Pisgah Forest, National Hunting and Fishing Day.

57> Reedy Creek Nature Center, Charlotte, Butterflies and Moths, Homeschool: First Impressions, Owl Prowl.

58> Robeson Planetarium and Science Center, Lumberton, Moon Madness.

59> Sarah P. Duke Gardens, Durham, Fall Family

Fun Day, Nature Ranger Cart, Sunday Science.

60> Science Communicators of N.C., Research Triangle Park, Writing Science: Local Authors Discuss Their Craft.

61> SciWorks Science Center, Winston-Salem, BioTechnology Days, Live Animal Encounters, Science Café, SciWorks Planetarium Shows.

62> Shelton Vineyards, Dobson, The Science and Art of Winemaking.

63> South Mountains State Park, Connelly Springs, Nature Day.

64> The Health Adventure, Asheville, Super Science Saturday.

65> The N.C. Arboretum, Asheville, Nature Discovery Room Opening.

66> The Research Triangle Park, Research Triangle Park, Triangle Area Research Directors Council September Luncheon.

67> Transylvania County Library, Brevard, Mad Science Show.

68> TS Designs, Burlington, Tour of TSDesigns.

69> UNC-Charlotte, Charlotte, The Science of UltraViolet Beads.

70> UNC-Greensboro, Greensboro, Chemistry and Biochemistry Open House.

71> UNC-Pembroke, College of Arts and Sciences, Pembroke, Science and Math Family Fun Day.

72> UNC-Wilmington, Wilmington, WSE Junior Seahawk Academy Family Learning Day.

73> United States Army Corps of Engineers, Duck, Tour of Coastal Research Station.

74> Wake Audubon Society, Raleigh, Audubon Lecture: Exploring the Tropics, Chimney Swift Walk, Loggerhead Shrikes-The Butcher Bird!

75> Wake County Portion of the American Tobacco Trail, Apex, Nature at Night, Nature Bike Ride

76> Western Carolina University, Cullowhee, Celebrating Science in the Mountains.

76> Western Carolina University College of Arts and Sciences, Cullowhee, Laboratory Facilities Events.

76> Western Carolina University Dept. of Chemistry and Physics, Cullowhee, Astronomical Star Party.

77> William B. Umstead State Park, Raleigh, Moonrise Paddle on Big Lake.

78> WNC Agricultural Center, Fletcher, N.C. Mountain State Fair.

41 unc science expo



UNC-Chapel Hill's campus buzzed with science on a warm September Saturday. More than 8,000 people celebrated science and its impact on our state in the first-ever UNC Science Expo, one of the Science Festival's signature events.

The expo featured more than 120 different activities, including rare behind-the-scenes lab tours, exciting demonstrations and amazing experiments.

Other expo highlights included:

- > An interview of Nobel Laureate Oliver Smithies conducted by UNC President Emeritus William Friday
- > Songs, storytelling and other performances on the Science Stage
- > More than 75 hands-on activity stations
- > Talks on topics such as energy, medicine and health, climate change and astronomy
- > UNC Admissions session and tours for prospective students interested in science

Morehead Planetarium and Science Center organized the Sept. 25 event. UNC faculty, staff and students along with scientists and representatives from other universities, non-profit organizations and sponsors generously contributed time and resources to present the Expo and its activities.

The North Carolina Science Festival is a statewide celebration of science and its impact on education, culture and economics within North Carolina. The first North Carolina Science Festival spanned Sept. 11-26, 2010 and was the first-ever statewide science festival in the United States. UNC's Morehead Planetarium and Science Center founded and coordinates the festival, with participation by museums, parks, community sites and other facilities throughout the state.



54 piedmont biofuels

>> about morehead

Morehead Planetarium and Science Center has provided informal science education and outreach for the University of North Carolina at Chapel Hill since 1949. More than 170,000 visitors experience planetarium shows, camps and other programs at the center each year.

>> contacts

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