

2018 FINAL REPORT



North Carolina Science Festival is a statewide month-long celebration of STEM — science, technology, engineering and mathematics — with community-based events hosted by museums, science centers, colleges, universities, businesses, parks, libraries, and other sites.

Founded in 2010 by Morehead Planetarium and Science Center at the University of North Carolina at Chapel Hill, the Festival has served more than 2 million participants of all ages since its inception.

The Festival is made possible through generous support from leading business and government partners and through the participation of hundreds of event hosts across North Carolina.

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- Morehead Planetarium and
- Science Center

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Dear Friends,

What a ride! From August's Carolinas Solar Eclipse Party to April's Gravity Games, the 2018 North Carolina Science Festival was our most ambitious statewide celebration yet. What started as a way to shine the spotlight on STEM has officially matured into a year-round engagement effort that supports and trains scientists, provides resources for teachers and schools, guides cultural institutions, and inspires community groups. None of which would be possible without you, our incredible partners. Thank you!

This year, all of that work culminated in the eighth annual North Carolina Science Festival. We expanded the celebration to run the entire month of April. The response could not have been more positive. We had a record number of participants, our largest star party ever, and a clear sense that our mission as encapsulated by our tagline, "Science for all." is vitally important to the work we do together.

The Festival is about collective impacts. Thanks to the STEM ecosystem we are building in concert with you, our state is leading the way in public science engagement. So, here's to you — our sponsors, our event partners, our volunteers, and our scientists. Without your dedication and enthusiasm, an effort as massive as the Festival would not be possible. Thank you! We hope you have an incredible summer and let's get ready to talk April 2019!

Sincerely,

Took Boythe

Todd Boyette Director, Morehead Planetarium and Science Center Co-founder, North Carolina Science Festival

Jonathun M. Frederide





By the Numbers

This year's Festival saw record attendance and growth of both new and existing programs.





Star Party Events

- 7 287
- PARTICIPANTS
- 77
- • •
- EVENTS

On-Air/Online Events

- 156,242 VIEWERS
- 9
- EVENTS

444,966 TOTAL PARTICIPANTS **936** TOTAL EVENTS



9 Beers In Brewing Challenge

Craft brewers from across the state participated in the Festival's first "Science of Beer Brewing Challenge." Mystery Brewing Company of Hillsborough was crowned the overall champion for their beer "Proof of Concept," which incorporated a revised kettle souring process.



50 Little Free Libraries

For the fourth year in a row, we sent curated collections of books to Little Free Libraries in neighborhoods across North Carolina. This year the books were food related, celebrating the Festival's theme "The Science of Food and Drink."



164 Duke Energy Science Nights

Duke Energy Foundation funded the resources needed to provide materials for science nights for over 35,000 students, parents, and teachers. April 19 was the most popular day for science nights, with 22 events in one day!

4,966

Stem Professionals Involved

- 26:1 Ratio Of Attendees
- To Stem Professionals
- At Public Events

30 Days Of Festival Fun

We extended the Festival's length from two weeks to the entire month of April!

Science for All

By popular demand, the Festival's programmatic reach has expanded beyond its traditional calendar and into every corner of the state.







SUPPORTING EDUCATORS

DATA ON THE FLY GOES ONLINE

For the second year in a row, SAS's Data on the Fly brought together a group of NC high schoolers with an interest in aviation. The students toured RDU facilities, heard from speakers with a passion for flight, and worked in teams to build real-time airplane monitoring devices. These devices allowed students to track and interpret flight data as they watched planes take off from the runway.

Now, thanks to SAS's free online education resource Curriculum Pathways, students, teachers, and anyone who is interested may find the Data on the Fly curriculum online!



CHECK IT OUT AT: curriculumpathways.com/dataonthefly

DR. CHRIS EMDIN SPEAKS IN DURHAM

We partnered with Durham Public Schools to bring *New York Times* bestselling author Dr. Chris Emdin back to North Carolina. He spoke directly to students and teachers at Durham's Southern High School.

He also visited the American Tobacco Campus for "Revival and Reprisal in the Age of Denial" where he discussed the current landscape of education, wellness, and STEM education, hosted in partnership with the Raleigh-based radio station K97.5.

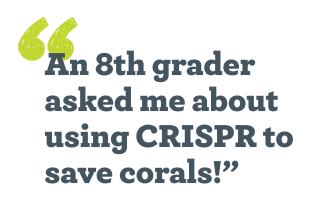
Photos top to bottom:

Data on the Fly; Dr. Chris Emdin at K97.5, photo courtesy of @iambriandawson; Novozymes SciMatch, photo courtesy of Shannon Speer

TRAINING SCIENTISTS

Our IMPACTS program trained an amazing statewide group of scientists in science communication thanks to the support of the NC GlaxoSmithKline Foundation.

We were able to send more than 70 scientists to middle schools as part of the Novozymes SciMatch program, reaching more than 4,000 students from all over North Carolina!



IMPACTOR

MARKETING THE FESTIVAL

We consulted with a marketing firm to gain more experience promoting to multicultural audiences. This led to stronger messaging across radio and print to both African American and Latinx audiences.

7,174,855 PEOPLE REACHED ON ON TV/RADIO/DIGITAL



MAKING LIFELONG MEMORIES

Building on the success of the annual Statewide Star Party and with generous support of NC Space Grant, we held professional development workshops for educators leading up to last summer's solar eclipse. On August 21, 2017, over 90,000 people came out to our 35 viewing parties across North Carolina.

THE POWER OF MINI-GRANTS

The Festival team administers two minigrant programs to catalyze dynamic STEM events. This year, we were able to support 57 community events at 26 institutions across the state through the UNC Challenge Award program and the Event Sponsorship Program.

These funds helped over 37,000 North Carolinians engage in events created specifically for the Festival while often allowing our partners to develop new programs that enhance their current offerings.



The Big Picture

936 events at 427 locations in 87 counties.

- K-12 Events
- Public Events



PATRICK M. MARTIN, PH.D.

Interim Associate Dean, College of Science and Technology NC A&T State University



Gravity Games LENOIR



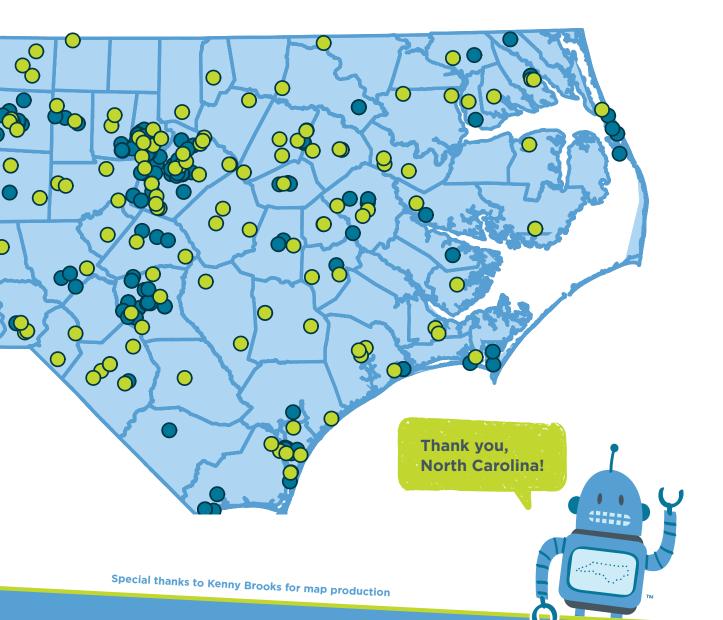
CHARLOTTE



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Duke Energy Science Nigh LINCOLN HEIGHTS





Novozymes SciMatch WINSTON-SALEM



Triangle SciTech Expo RALEIGH



Statewide Star Party CAROLINA BEACH

Photo: Karen Swain/NCNMS

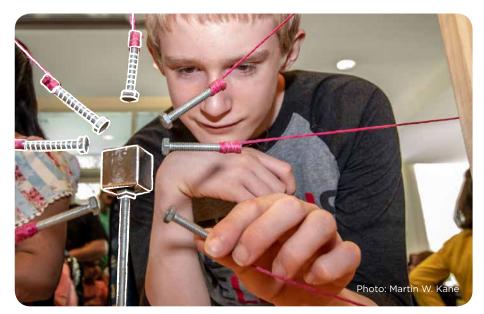
Event Hosts

The North Carolina Science Festival would like to thank the following partners for their leadership in sharing STEM with their communities.



21st Century Community Learning Center - Cherokee County Schools (S A Time For Science (S A.C. Reynolds Middle School (S Aldert Root Elementary School (S Alexander County Library (S Anderson Elementary School (S Andrews Middle School (S Apex Middle School (S) Appalachian State University

- Dark Sky Observatory 😭
- Department of Mathematical Sciences
- Mathematics and Science Education Center
- Archdale Elementary School 😔 Archdale-Trinity Middle School ⊗



Science Everywhere GREENSBORO

Armstrong Elementary School 🌗 ArtSpace Charter School 🛞 Ashe County Public Library Ashe Science Club Asheville Museum of Science 💿 Aulander Elementary School 싱 Aurora Fossil Museum Barnardsville Elementary School 🊱 **Beaufort County Community College** Beaufort Elementary School 🄄 Belville Elementary School 🌑 Bethel Elementary School 🊱 Bethel Middle School 🛞 Bethesda Elementary School 🊱 Beulaville Elementary School 🛞 **Big Brothers Big Sisters of the Triangle** Biolgnite BioNetwork 🕎 **Blessed Sacrament School** Blue Jay Point County Park Boiling Springs Elementary School 🌎 Bolton Elementary School 🌎 Boone Trail Elementary School 🊱 Bowman Middle School 싱 Bradley Creek Elementary School 🚱

Bruce Drysdale Elementary School 🌎 **Buncombe County Schools Cabarrus Active Living and Parks Cabarrus County Public Library Cape Fear Botanical Garden** Cape Fear Museum of History and Science 🚫 (S) 😭 😣 **Carolina Raptor Center** Carolinas Aviation Museum 💟 🌖 Carowinds Carr Elementary School 🌗 Carvers Creek State Park Castle Hayne Elementary School 🌗 Catawba County Library System 😭 Catawba Lands Conservancy Catawba Science Center 🏹 Catawba Valley Community College -Education Matters in Catawba Valley Central Middle School 😣 **Central Piedmont Community College** Chapel Hill Public Library 😭 Charlotte Choice Charter School 🚳 **Charlotte Mecklenburg Library** Beatties Ford Road Regional Cornelius Davidson Hickory Grove

- ImaginOn
- Main Library
- Matthews
- Mint Hill
- Morrision Regional
- Myers Park
- Plaza Midwood
- Scaleybark
- South County Regional
- Steele Creek
- Sugar Creek
- University City Regional
- West Boulevard

Chimney Rock State Park

China Grove Middle School 🛞



Statewide Star Party

City of Lenoir 🥸

City of Raleigh Parks, Recreation and Cultural Resources - Nature Program **City of Raleigh Solid Waste Services** Clear Creek Elementary School 🊱 Cloverleaf Elementary School 🄄 Clyde Campbell Elementary School 🄄 Coastal Land Trust 🤍 Colerain Elementary School 🍤 Coleridge Elementary School 🄄 Collettsville School 🛞 ComSciCon - Triangle 🍸 Coopers Elementary School 🚱 **Core Sound Waterfowl Museum** Cove Creek School 🚱 🛞 Cox Mill High School 💿 **Cumberland County Public Library &** Information Center Bordeaux Branch 🕎

- Cliffdale Regional Branch (
- East Regional Branch
- Headquarters
- Hope Mills Branch 💿
- North Regional Branch
- Spring Lake Branch
- West Regional Branch

Discovery Place

- Discovery Place Kids Huntersville
- Discovery Place Kids Rockingham
- Discovery Place Nature
- 🔹 Discovery Place Science 💿 😴 😭

Dismal Swamp State Park 😭

Down East Middle School

Duke University

- Duke Institute for Brain Sciences
- Huang Fellows Program (C)

Durham County Library

- East Regional Library
- South Regional Library
- Southwest Regional Library
- Stanford L. Warren Branch Library

Durham Parks and Recreation 🛞 E.M. Rollins Elementary School (S East Carolina University -*Biodiversity Initiative* (R East End Elementary School (S East McDowell Middle School (S) East Rutherford Middle School (S) East Wake Academy (S) East Wake Academy (S)

- Eastfield Global Magnet School 🔄
- Eastway Elementary School 🄄

Edna Andrews Elementary School 싱 **Elizabeth Seawell** Elementary School 🊱 Elizabethtown Christian Academy 🔄 Elk Knob State Park Englewood Elementary School 🚱 Envision Science Academy Fairview Heights Elementary School 铃 Farmville Middle School 🚳 Fascinate-U Children's Museum 😡 🌖 FIRST North Carolina 💛 Forrest W. Hunt Elementary School 🄄 Forsyth Astronomical Society 😭 Fort Macon State Park 😭 Fuguay-Varina Middle School 🚷 G.E. Massey Elementary School 🌗 G.W. Carver Elementary School 🌗 Gallberry Farm Elementary School 싱 Gardner Park Elementary School 🚱 Gaston College 🚫 Gaston Elementary School 싱 Gatesville Elementary School 🚱 Githens Middle School 🛞 Given Memorial Library Glade Creek Elementary School 싱

Glenn Elementary School 🍤 Google 🚳 Grady A. Brown Elementary School 🌎 Graham A. Barden Elementary School 🊱 Greene County Intermediate School 🄄 Greene County Schools 😡 Greenfield School 🄄 Greensboro Children's Museum Greensboro Public Library - Kathleen Clay Edwards Family Branch Greensboro Science Center (\$) **Guilford Technical Community College** - Cline Observatory 🗐 😭 Hammocks Beach State Park 😭 Hands On! Children's Museum (\$ Hanging Rock State Park Hardin Park Elementary School 🊱 Harold Winkler Middle School 🛞 Harris Middle School 🊱 Havelock Elementary School 🊱 Hawks Nest STEAM Academy Hendersonville Elementary School 🊱 Heritage Middle School 🛞 Hertford Grammar School 🏵



Duke Institute for Brain Sciences Discovery Day

Hiddenite Elementary School 싱 **High Point Museum** High Point University - Stout School of Education 🚫 Highlands-Cashiers Land Trust 😭 Hillandale Elementary School 🚱 Historic Edenton State Historic Site Hodge Road Elementary School 🌗 Hollister Elementary Leadership Academy 😔 Holly Ridge Middle School 🛞 Hominy Valley Elementary School Horizons Unlimited Hurley Elementary School IC Imagine Charter School 🚱 **Imagination Station Science and History Museum** Imperial Centre for the Arts and Sciences 😭 Isothermal Community College 😡 💲 J. Glenn Edwards Elementary School 🚱 Jackson Park Elementary School 🍤 Jacksonville Commons Elementary School 🌗 Jefferson Elementary School 🍤 Jockey's Ridge State Park John Griffin Middle School 🚷 John Small Elementary School 🍤 Johnson & Wales University Joint School of Nanoscience and Nanoengineering 😡 🔤 Jones Intermediate School 🚱 Jonesville Elementary School 싱 Junaluska Elementary School 🊱 Kaleideum North **Kannapolis Library KidSenses Children's INTERACTIVE Museum** Kidzu Children's Museum 🛞 (S) 🕎 King Elementary School 🌗 Kiser Middle School 🛞 Kitty Hawk Elementary School 싱

Lake James State Park 😵 Lake Norman State Park 😵 Lakewood Elementary School (S Laurel Mill Elementary School (S Lincoln Elementary School (*Leland*) (S Lincoln Elementary School (*Ruffin*) (S Lincoln Heights Elementary School (S Lindley Elementary School (S London Elementary School (S Longview Elementary School (S Longview Elementary School (S Love A Sea Turtle (S)



STUDENT Duke Energy Science Night

Lumberton Jr. High School 🚷 Mabel Elementary School 🍤 Macon County Public Library (S) 😭 Marbles Kids Museum 🚳 March for Science Raleigh Triad Mars Hill Elementary School 🌗 Martin Middle School 🛞 Martin Millennium Academy 🚱 🚳 Mary Scroggs Elementary School 🄄 Mattamuskeet Early College High School 😵 Mattamuskeet Elementary School 🄄 Mayland Community College -Bare Dark Sky Observatory 😭 McDowell Nature Center 😭 Meadowview Magnet Middle School Methodist University 😭 Middlesex Elementary School 🚱 Midway Elementary School 🍤 Millbrook Elementary School 🍤



Flytrap Frolic WILMINGTON

Mills Park Middle School 🚷 Mocksville Elementary School 🤄 Moncure School 🊱 Monroe Avenue Elementary School 🌗 Moss Hill Elementary School 🊱 Mount Energy Elementary School 🄄 Mt. Jefferson State Natural Area Museum of Coastal Carolina Nashville Elementary School 🊱 NC A&T State University -College of Engineering 🚳 🚫 🚾 NC Aquarium on Roanoke Island 😭 NC Central University NC Coastal Federation NC Craft Brewers Guild 🔯 NC Department of Transportation NC Geological Survey NC Museum of Life and Science 🚫 NC Museum of Natural Sciences 😭 😡 😣 NC Museum of Natural Sciences at Whiteville 😭 NC School of Science & Math 🚫 NC Science Festival 🕎 😣 NC Science Olympiad 🚫

NC State Parks NC State University College of Education 💛 College of Sciences (Sustainability Office NC Wesleyan College 🌗 Neal Middle School 🚷 Neuseway Nature Park 😡 New Bridge Middle School 🛞 New Hope Valley Railway/NC **Railwav Museum** North Elementary School 싱 North Graham Elementary School 싱 North Topsail Elementary School 🊱 North Wilkes Middle School 🛞 North Wilkesboro Elementary School 🊱 Northeast Academy for Aerospace and Advanced Technologies 🚳 Northview Middle School 🛞 Northwood Office Ocean Isle Museum Foundation at Ingram Planetarium 😭 Old Town Elementary School 🊱 Outer Banks Children @ Play Museum Page Street Elementary School 🄄



UNC Science Expo

Pamlico County Middle School 🚳 Parkway School 🄄 Parkwood Elementary School 🊱 Pathways Elementary School 🏵 Paul J. Ciener Botanical Garden Pembroke Elementary School 🌎 Perry Harrison Elementary School 🛞 Pickett Elementary School 싱 **Piedmont Environmental Alliance Piedmont Environmental Center Piedmont Wildlife Center** Pilot Mountain State Park **Pisgah Astronomical** Research Institute 🚫 Poplar Springs Elementary School 😔 Port Discover Princeton Elementary School 🄄 Queen Anne's Revenge Lab 🚫 **R. Brown McAllister** STEM Elementary 🛞 (§) Raleigh Road Elementary School 🄄 Randleman Middle School 🛞 Randolph Community College Reidsville Middle School 🛞

Research Triangle Materials Research Science and Engineering Center 💛 Richfield Elementary School 🍤 Ridge Road Middle School 🚷 **River Park North** River Road Middle School 🛞 Robeson Planetarium 😭 Rockingham County Middle School 🚳 Rocky Mount Mills 😳 Rocky Mount Preparatory School 🊱 Rocky River Elementary School 싱 Rodgers Elementary School 🄄 Ronda-Clingman Elementary School 🌜 **Rowan Public Library** East Branch Headquarters (South Rowan Regional 😭 **Rowan-Cabarrus** Community College 😡 (S) Rural Hall Elementary School 싱 Saint Pauls Middle School 🛞 Salem Elementary School 🌎

Saint Pauls Middle School Salem Elementary School Saluda Elementary School Sand Ridge Elementary School Sandhills Community College SAS

Science Communicators of North Carolina Scotts Creek School 🚷 Siler City Elementary School 🍤 Smyrna Elementary South Creek Middle School 🛞 South Mountains State Park South Newton Elementary School 싱 Southern Wake Academy 🚷 Southmont Elementary School 🌑 Southwood Elementary School 🌗 Spandex City Comics Sparta Elementary School 🌗 Stanfield Elementary School 🊱 STEM in the Park 🚫 (\$) Stocks Elementary School 🊱 Stone Mountain State Park Sunset Park Elementary School 싱 Surry Community College -Science Division (§ Swain County Schools 싱 Sycamore Lane Elementary School 🌗 Sylvan Heights Bird Park (\$) T.C. Henderson Elementary School 🚱 T.S. Cooper Elementary School The Children's Museum of Wilmington (\$) The Children's Playhouse 💿 💲 The Forge Initiative The North Carolina Arboretum 😡 The North Carolina Leadership Academy 🄄 The Schiele Museum of Natural History 😭 Thomasboro Academy 🍤 Town of Cary - Stevens Nature Center 😭 Town of Garner 😭 Township Three Elementary School 🊱 Triad Math and Science Academy 🚱 Troutman Middle School 🛞 Tyrrell Elementary School 铃 U.S. Environmental

Protection Agency 🕎 🚫

UNC Asheville

Department of Mathematics Note

Department of Physics ()
Lookout Observatory ()

STEM Learning Cooperative 😡

While using a magnet to pull iron from his cereal, one boy exclaimed to his Mom that he would only eat Total for breakfast for the rest of his life!"

EVENT SPONSORSHIP PROGRAM PARTICIPANT

Hands On! Children's Museum

UNC-Chapel Hill

- Honors Carolina
- UNC Institute for the Environment

UNC Nutrition Research Institute
Union Chapel Elementary School (2) (3)
Union County Parks and Recreation (3)
Union Cross Elementary School (3)
Union Elementary School (Clinton) (3)
Union Elementary School (Rowland) (3)
Union Elementary School (Shelby) (3)
Valle Crucis Elementary School (3)
Vass-Lakeview Elementary School (3)

Vick Elementary School Vinson-Bynum Elementary School 🄄 Virginia Cross Elementary School 🊱 W.A. Young Elementary School 🚱 W.G. Pearson Magnet Elementary School 🌗 W.H. Robinson Elementary School 🧐 Wagram Elementary School 싱 Wake County Parks, Recreation and Open Space - Harris Lake County Park and the American Tobacco Trail 😭 Wake County Solid Waste Management Division Wake Forest Charter Academy 🛞 Walnut Cove Elementary School 🄄 Ward Elementary School 🚱 Warrenwood Elementary School 🄄 Warsaw Elementary School 🏵 Washington Street Elementary School 🊱 Wayne Avenue Elementary School 🍤 Wayne Christian School 🚱 Wayne Community College 🛞 Wavne County Public Library Welcome Elementary School 🚱 Weldon Middle School 🏵

West Edgecombe Middle School 🚳 West Marion Elementary School 🚱 West Millbrook Middle School 🛞 West Smithfield Elementary School 🌑 Western Alamance Middle School 🛞 Western Carolina University 😭 Western North Carolina Nature Center Western Piedmont Council of Governments - STEM West Weymouth Woods White Oak Elementary School 🊱 White Plains Elementary School 🌎 Wiley Magnet Middle School 🛞 Wilkerson Nature Preserve 😭 Wilson's Mills Elementary School 🚱 Winston-Salem State University Department of Mathematics wc SciTech Institute Wittenburg Elementary School 🚱 Woodleaf Elementary School 🌑 Woodrow Wilson Elementary School York Chester Middle School 🛞 York Elementary School

Zebulon Middle School 🛞



Imagination Station Egg Drop WILSON



Science for all.

····· APRIL 2018 ·····

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Biogen

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DIAMOND CHAMPION

BURROUGHS WELLCOME

GOLD SPONSORS



BRONZE SPONSORS

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