



# Duke Energy Science Night

2022 PLANNING GUIDE

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MOREHEAD  
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The University of  
North Carolina at Chapel Hill



# Duke Energy Science Night



Funding for the North Carolina Science Festival's Duke Energy Science Night initiative for elementary schools is provided by the Duke Energy Foundation, which seeks to power vibrant communities in their service region through the support of education programs and initiatives that emphasize science, technology, engineering and math (STEM). The Duke Energy Foundation invests in high-performing, sustainable programs and initiatives that help build a diverse workforce of the future, including those that create greater access to and participation in STEM-related informal and out-of-school educational opportunities

## North Carolina Science Festival



The North Carolina Science Festival premiered in September 2010 as the first statewide science festival in the United States. The Festival offers an opportunity to celebrate science in fun and welcoming settings. The Festival is not one event; it is hundreds of events (including Duke Energy Science Nights) that happen across the state throughout the month of April.

The North Carolina Science Festival is an initiative of Morehead Planetarium and Science Center. Learn more about the Festival and events that are happening in April at our website: **[www.ncsciencefestival.org](http://www.ncsciencefestival.org)**



## 2 DUKE ENERGY SCIENCE NIGHT

North Carolina Science Festival *presented by the Biogen Foundation*

# Greetings from the North Carolina Science Festival!


Welcome to the team! By receiving a Duke Energy Science Night kit, you are joining the North Carolina Science Festival in celebrating and showcasing science across the state. In April 2021, this program alone reached over 35,000 students and their families from the mountains to the coast. We are thrilled to have so many educators deeply committed to excellence in science engagement—especially during these unprecedented times.

The goal of this program is to generate enthusiasm among students and families for science, technology, engineering, and math by giving them opportunities to explore together. Reaching that goal by hosting a successful science night event takes planning and hard work. To assist you, this planning guide (tested and refined by more than 1,200 science nights!) is designed to help.

Due to COVID-19, we recognize that it may not be advisable to hold an in-person event in 2022. Therefore, these activities have been designed to give you the flexibility to adapt to the operating plans that are in effect at your school. The materials for most of the activities can be sorted for individual students to use in classrooms or at home, and all of the activities can be facilitated via distance learning methods. To help navigate the different options, we are providing several instructional webinars and of course are always an email or a phone call away.

All we ask is this: Don't let these supplies go to waste! Please make use of the resources available in this guide and join us for our free webinars. Don't hesitate to contact us with questions or concerns. We are here to support you! Thank you for joining the North Carolina Science Festival in our mission to engage public audiences in STEM while inspiring future generations.

Sincerely,



Jonathan Frederick  
Director  
North Carolina Science Festival



Kim Moore  
Program Assistant  
North Carolina Science Festival

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# In the Box

## Here's what your kit contains. Go ahead, dig in!

- + **Planning Guide** — the one that you're currently reading. This guide has all the information you need to plan a successful and fun Duke Energy Science Night.
- + **Instructions and Materials** — for 10 exciting science activities. Each activity has:
  - A laminated Activity Guide with everything you need to know on one sheet of paper.
  - A laminated Instruction Sheet for each activity.
  - A Table Card with the name of the activity.
  - A bag (or bags) of the materials needed to perform each activity.
  - Activity Guides, Instruction Sheets, Table Cards and bags of materials are all labelled for easy matching.
- + **Binder** — containing the Activity Guides, Instruction Sheets, Table Cards ...oh and this planning guide!
- + **Duke Energy Science Night Promotional Banner** — As a Host, we request that you hang your official banner prominently at your school at least two weeks before your event.
- + **North Carolina Science Festival Promotional Materials** — We are providing these as a token of our appreciation and for you to hand out to event volunteers and participants!
- + **Flat Kelvin** — Kelvin is the official “spokesbot” of the North Carolina Science Festival. In the weeks leading up to your event, have Flat Kelvin travel to classrooms and spaces throughout the whole school to generate excitement. Take photos of Kelvin and share them with us on social media! Tag @ncscifest and use #ScienceForAll and #GoKelvinGo
- + **PBS North Carolina** — Has provided a programming flyer as well as a fun item for you.

## Notes:

- + Please inventory your materials as soon as you receive your kit and let us know immediately if anything is missing or damaged. Contact information is listed on page 23.
- + If you lose the Planning Guide or any of the other documents, don't worry! You can download and print out replacements from our website. There are Spanish versions of the materials on the website as well! [www.ncsciencefestival.org/DESN-resources/2022](http://www.ncsciencefestival.org/DESN-resources/2022)

# Planning

**As you begin planning your Science Night, here's a list of general things to consider.**

*A detailed planning timeline can also be found on pages 11-13.*

## Date

- + The NC Science Festival is a month-long celebration of science that occurs every April and so we ask you to host your DESN event sometime in April.
- + The date and time are up to you - but we ask that you provide them to us so that we can provide timely tips and reminders throughout your planning.
- + If the date or time of your event changes, please notify us of that change as soon as possible. Contact information is listed on page 23.

## Time, Length and Size

- + 90 minutes to 2 hours is the optimal length of time for a Science Night. For larger crowds, plan for a 2 hour event.
- + Most schools have their Science Night sometime between 5 and 8pm on a weeknight. Others opt for a daytime or weekend event. Consult with administration and pick a time that works best for your school community.
- + We have provided materials for up to 200 people. Parents are encouraged to participate with their children! If you plan for more than 200 attendees, you will need to supply the additional materials.

## Location and Layout

- + Lots of different models are used for this, such as: scheduled rotations (a bell rings every 15 minutes and groups travel to a new activity); one big room (the cafeteria or gym is turned into a big science party); classrooms (each activity gets its own room); or the great outdoors (tables setup outside on the blacktop). Most Science Nights are some combination of locations that work best for your school.
- + You will want to include a welcome table to orient families to the event.
- + Put one or more volunteers at this table in charge of keeping an estimate of attendance - we will ask you for it.

## Library Involvement

- + Consider getting your school's Media Specialist/Librarian involved!
  - Can they offer a science themed read aloud as an activity station?
  - Could the librarian or media and technology team host a How-To workshop on technology or a "tech playground"?
  - Science apps or fun science websites could be available for families to explore.



## Volunteers

- + You will need 13-27 volunteers to lead the activities. Volunteers can be teachers, staff, parents or guardians. Consider recruiting local high school students to help with the Science Night, and give them an appropriate level of responsibility.
- + Volunteers can work the entire event or in shifts, depending on your needs. Try to schedule enough overlap so that no activity will be left without a facilitator during a transition.
- + Seek enthusiasm over expertise! All activity guides are written to help anyone effectively lead the activity. Assure parents that they do not need to be rocket scientists in order to help!
- + Be sure to reach out to volunteers early in your planning process. More details on recruiting volunteers can be found on page 15. A template letter asking parents to volunteer is available at [www.ncsciencefestival.org/DESN-resources/2022](http://www.ncsciencefestival.org/DESN-resources/2022)
- + Consider recruiting professionals involved in STEM from your school or local community so your students can “Meet A Scientist” during your event. This and other Event Extension ideas can be found on page 20.

## Publicity

- + As soon as you set the date, post it on both your internal staff and external public calendars, and on your school website!
- + We have created flyers to download and print. You will find them at [www.ncsciencefestival.org/DESN-resources/2022](http://www.ncsciencefestival.org/DESN-resources/2022)
- + Communicate clearly with students and parents about the Science Night and when it's happening.
- + Often local newspapers will send a reporter to cover your great event! Contact your local media using the press release template available at [www.ncsciencefestival.org/DESN-resources/2022](http://www.ncsciencefestival.org/DESN-resources/2022)

## Additional Materials

- + We have provided most of the materials needed in your kit (in quantities sufficient for 200 attendees.)
- + Some activities require additional materials as noted in the “stuff you provide” section of the activity cards. We try to keep this to a minimum.
- + A complete list of “stuff you provide” materials is available on page 10. Be sure to consult this list well in advance of your Science Night. You can collect these materials yourself or send home requests to your students’ families.
- + It’s helpful to label things (like scissors or markers) that get borrowed from a classroom with a small strip of masking tape and the room number/teacher’s name. Put a volunteer in charge of returning these borrowed items.

## Set-up and Clean-up

- + Be sure you have the help you need to set up and clean up the event.
- + You will want to have some volunteers arrive early to help with set-up and stay late to help clean up afterwards.
- + Set-up will include arranging tables and chairs, providing trash cans for some activities, distributing activity materials to each station and hanging any necessary signs. Prioritize your volunteers as they arrive among these different tasks.
- + Your school’s custodial staff may be able to help, but check with them early in the planning process, especially if you need tables brought from storage.

## Food

- + Providing dinner for families before the event begins can increase parent participation. This can be as simple as a table full of cheese pizzas or a pot-luck dinner. Local businesses may be willing to donate or discount food for the event in return for positive press, so ask around!
- + Selling snacks to fundraise for science materials, equipment or field trips is another fun idea. Check with your school’s Parent-Teacher Organization to ask if they’d like to organize this addition.



# Activity Needs

Here's what each activity must have in order to be successful.

*The number of facilitators listed below is a minimum. If you have more volunteers, great!*

Activity	Space	Facilitators	Other
Build a Bubble	1-2 tables	1-2	* Large open area or a space outside. Pre-event preparation.
Galilean Cannon	1 table	2-4	Large open area with high ceilings or a space outside.
Invisible Ink	1-3 tables	1-3	* Pre-event preparation.
Light It Up	1-2 tables	1-2	Metallic and non-metallic objects.
Magnetic Painting	2-4 tables	2-4	* Metal objects. Space for the paintings to dry.
Paper Flying Machines	1-2 tables	1-2	Area for testing the flying machines.
Pinwheel Power	1-2 tables	1-2	Outlet to plug in fan to spin the pinwheels.
Stomp Rockets	1-2 tables	1-2	Area for launching the rockets
Straw Flutes	1-2 tables	1-2	
Zip Lines	Space near a wall.	1-2	At least two chairs and coffee cans.
Welcome table	1 table	1-2	Place at entrance of your event and count the number of attendees.
<b>Total</b>	<b>11-21 tables</b>	<b>13-27 volunteers</b>	<b>Lean towards more than less.</b>

\*Area may get wet and/or messy, so have towels/paper towels located at this activity.

# Materials

**Here's the complete list of materials you will need to collect, purchase or solicit.**

## **Materials you supply**

- + water
- + large container for bubble solution
- + paper towels
- + scissors/adult scissors
- + 3 trays
- + table spoon
- + garbage bags
- + assorted metallic and non-metallic objects
- + wipes
- + pens/markers
- + paper
- + tape measure or yardstick
- + chairs
- + coffee cans/containers

## **Furniture**

- + Tables: for activities and welcome table
- + More tables if you provide food
- + Chairs: for activities as well as for facilitators and welcome table staffers
- + Trash and recycling bins

## **Optional Items**

- + additional materials for creating bubble wands
- + basketball and tennis ball
- + additional paint colors
- + stopwatches
- + electric fan (recommended)

## **Please note**

Some of the Fun Options provided for each activity require additional supplies that are not listed here. Take the time to read through these and decide which, if any, you want to include in your Science Night. Be sure to add these additional items to your shopping/donations list.

# Timeline

**Here's our suggested timeline for making sure your Science Night is a success!**

## Six weeks

- + Read through the Planning Guide and all the Activity Guides so you know what to expect.
- + Put the Science Night on your school's calendar & website.
- + Communicate with your library or media center about the event.
- + Recruit your volunteers! See page 7 for more guidance.
- + Submit information to the school newsletter. A template is available at [www.ncsciencefestival.org/DESN-resources/2022](http://www.ncsciencefestival.org/DESN-resources/2022).
- + You will start receiving regular emails from us with tips and advice on how to make your night a success.

## Four weeks

- + Engage your PTA organization and ask them to advertise the event in their newsletter or at meetings.
- + Send a letter home with students announcing the event and asking for volunteers. A template is available at [www.ncsciencefestival.org/DESN-resources/2022](http://www.ncsciencefestival.org/DESN-resources/2022).
- + Check the materials list on page 10. See what you have and what you need. Also, check the "Fun Options" section of each activity guide. You may want

to obtain the additional supplies to implement these options.

- + Go shopping for or request donations of any additional materials you need.
- + Extend an invitation to your school district officials.
- + Notify your local newspaper. A template is available at [www.ncsciencefestival.org/DESN-resources/2022](http://www.ncsciencefestival.org/DESN-resources/2022).

## Two weeks

- + Communicate with parent and teacher volunteers with specifics of how they will be helping. For volunteers assigned to an activity, provide a copy of their activity guide so they can review it.
- + Add information about the Science Night to your school website. A template is available at [www.ncsciencefestival.org/DESN-resources/2022](http://www.ncsciencefestival.org/DESN-resources/2022).
- + Make a map of your set-up and plan where everything will go.
- + Speak to your custodial staff about helping with set-up and break-down.
- + Hang your Duke Energy Science Night banner.
- + Use Flat Kelvin to generate excitement at your school and on social media.

## One week

- + Send a letter home with students reminding them about the event. Ask them to bring bags to carry their take-away items. A template is available at [www.ncsciencefestival.org/DESN-resources/2022](http://www.ncsciencefestival.org/DESN-resources/2022).
- + Gather all the supplies for the activities. (Refer to page 10.)
- + Have students make Duke Energy Science Night posters in class. Hang them up to advertise.
- + Make any copies needed for the event (e.g., Citizen Science Handouts, Flat Kelvin, Kelvin Coloring Page.)

## Morning of event

- + Make an announcement about the event.
- + Remind students that the Science Night is tonight - and to bring a bag to carry their take-aways!
- + Hang up any directional signs that visitors might need.

## Two hours before

- + Set up tables and chairs.
- + Distribute to each activity station:
  - Activity guide
  - Instruction sheet
  - Table card
  - Bag(s) of materials
  - Additional supplies needed
  - Optional supplies provided

- + Lay out at welcome table:
  - Handouts
  - North Carolina Science Festival promotional materials

## As volunteers arrive

- + Direct them to their station.
- + Have them read the instructional materials and set up their activity.
- + See if they have any questions and if they feel confident facilitating the activity.
- + Ask them to keep the Instruction Sheet and the back side of the Activity Guide on display throughout the event.

## As people arrive

- + Welcome them to the Science Night and encourage them to jump in and get started on the activities!
- + Keep a count of how many people attend. We'll ask you to report this after your event.

## During Science Night

- + Keep volunteers supplied with what they need.
- + Do crowd control: if you see a large crowd at one activity and no one at another, encourage people to check out the other activity.
- + Take photographs... We can't wait to see them on social media!
- + Take a moment to pause and take in all the happy, engaged students around you.

## At end of event

- + Thank everyone for coming to the Science Night.
- + Announce that Duke Energy Science Nights are part of the North Carolina Science Festival and encourage people to visit our website to find more events they can attend:  
**[www.ncsciencefestival.org](http://www.ncsciencefestival.org)**
- + Encourage everyone to “be a citizen scientist!”
- + Encourage everyone to pick up any handouts you’ve made available.
- + Do a victory lap around your school and pat yourself on the back! You’ve just completed a massive undertaking that’s ensured your families had an authentic, meaningful hands-on science experience!

## To clean up

- + Return classroom supplies to their usual locations.
- + Save any leftover materials for future use - everything is yours to keep!

## One week after event

- + Your feedback is invaluable to us for future Science Night planning!
  - Complete the post-event survey that will be emailed to you as soon as possible and preferably within the week after your science night- while everything is fresh in your mind.
  - We expect 100% participation and will contact you until we get it :-)
- + If you do not receive the survey, please get in touch with us: see contact information on page 23.

# Publicity

**You'll want to let everyone know about your event. Here's how to publicize it.**

**Here are some things to keep in mind as you publicize your event:**

- + Help us maintain consistent messaging by using the correct and complete names for your Duke Energy Science Night and the North Carolina Science Festival (NCSciFest.)
- + You can use our logo to publicize your Science Night, but it can't be modified in any way.
- + Make your description of the event concrete by listing some of the specific activities that families will have the chance to do, or by describing how this event will benefit your school community.
- + Emphasize that this event is for students and their families! Parents/guardians should plan to attend and engage with the activities.
- + Let your excitement for the event be contagious! Talk with your students about the activities you're most excited about.
- + Contact us for more details using the contact information on page 23.

**The following templates are available to help you with publicity and can be found at [www.ncsciencefestival.org/DESN-resources/2022](http://www.ncsciencefestival.org/DESN-resources/2022):**

- + Press Release for newspapers
- + Notice for school website, newsletter, etc.
- + Announcement letter to parents
- + Reminder letter to parents

# Volunteers

**Your Science Night depends on volunteers. Here's how to find, recruit and manage them.**

## Who to Recruit

School administrators, teachers, and staff: recruit your school colleagues eight weeks in advance. Could you have five minutes at a staff meeting to hype the event?

Local professionals involved in STEM: seek outside volunteers six-eight weeks in advance

Parents/guardians: send a letter at least four weeks in advance

## How to Recruit

A template for a letter to parents is included online at [www.ncsciencefestival.org/DESN-resources/2022](http://www.ncsciencefestival.org/DESN-resources/2022)

Assure volunteers that they do not need to be science experts to help facilitate a Science Night activity! All the activity guides have been written for a facilitator without a science background.

Be prepared with general information about the Science Night and to tell them exactly what you are asking them to do.

When someone expresses interest in being a volunteer, get his or her contact information and a firm time commitment.

## How to Manage

Keep an organized list of your volunteers' names, contact information and any specific interests or concerns.

At least two weeks in advance, assign your volunteers to specific duties, and communicate those assignments.

Provide copies of the activity guides and instruction sheets to each of your activity facilitators in advance of the event. Not all of your volunteers will read them, but some will appreciate being prepared. Don't worry about facilitators who don't read ahead: activity guides and instruction sheets are designed to be understandable in about 20 minutes.

Remind your volunteers about the Science Night a week ahead of time and again one to two days in advance.

## Get the whole school involved

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- + Encourage students to see that science is everywhere by getting the whole school involved.
- + Some activities will lend themselves to particular staff members. Straw Flutes would be extra fun led by your school's music teacher and Magnetic Painting would be extra fun led by your school's art teacher, for example.
- + Reach out to the staff at large to see who can run an extension activity. Would your art teacher organize a large science mural students could work on during your Science Night (more information about this idea on page 20)? Encourage as much unique involvement as possible!

## Help them succeed

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- + When volunteers arrive at the Science Night, welcome them! Escort them to their station and give them time to familiarize themselves with their activity. Help them out if they have questions and make sure they are comfortable before the event begins.
- + Your level of stress will transfer to the volunteers around you. It's always stressful to organize an event for your community, but even if you're nervous and worried about turn-out or messy activities, show volunteers how excited you are about what the students and their families will get from the event. Your enthusiasm will get them started on the right foot!
- + During the event, circulate among the activity tables. Ensure that the volunteers have the materials they need and that everything is going well at their station.
- + As the event winds down, let your volunteers know your clean-up procedures. If you need help, be specific about asking for it.
- + Thank your volunteers for their help in making your Science Night a success! We have included North Carolina Science Festival promotional materials that can be distributed as a small token of appreciation.



# Additional Concerns

## Those extra things to think (but not stress) about.

- + Some activities get wet and/or messy! Encourage your volunteers to come dressed in expectation of that. Suggest teachers and staff bring a change of clothes and shoes so they can relax and enjoy themselves without worrying about stains on nice work attire.
- + Where are the closest broom and mop? Just in case.
- + Consider having a first aid kit available at the welcome table or a plan in place for accessing the nurse's office.
- + Will any areas of the school be off limits? If so, are they clearly marked/blocked off?
- + Is there more than one entrance to your school campus? Inform parents ahead of time about which entrance to use or mark it clearly.

# Activity Facilitation

Here's how you and your volunteers can make these activities a huge success.

## Activity Guides (also available in Spanish\*)

Each activity guide is divided into sections to make it easy to read and understand:

+ ACTIVITY NAME	+ FUN OPTIONS
<ul style="list-style-type: none"><li>• Appears on top of front side</li><li>• Name matches labels on the bag(s) of materials in the kit</li></ul>	<ul style="list-style-type: none"><li>• Ahead of Time: provides options for you to consider</li><li>• During the Science Night: options for the facilitator to consider</li></ul>
+ BIG IDEA	+ WHY IS THIS SCIENCE?**
<ul style="list-style-type: none"><li>• Sums up what the activity is all about</li></ul>	<ul style="list-style-type: none"><li>• Explains how the activity relates to science, technology, engineering or mathematics</li><li>• Gives a basic explanation of the science going on in the activity</li></ul>
+ YOU WILL NEED	+ NORTH CAROLINA CONNECTION**
<ul style="list-style-type: none"><li>• Lists the materials we supplied and the ones you provide</li></ul>	<ul style="list-style-type: none"><li>• Shows how the activity is related to North Carolina's history &amp; culture</li></ul>
+ SET IT UP	
<ul style="list-style-type: none"><li>• Tells you how to set up the activity station</li></ul>	
+ IT'S SHOWTIME	
<ul style="list-style-type: none"><li>• Explains how to easily guide families through the activity</li></ul>	

**\*\* The back side of the Activity Guides should be displayed during the Science Night so that attendees can read the "Why is this Science" and "North Carolina Connections."**

## Instruction Sheets (also available in Spanish\*)

Each instruction sheet lists the materials and steps that each participant will use. They should be displayed during the Science Night so that attendees can refer to them during the activity.

**\* Spanish versions available at [www.ncsciencefestival.org/DESN-resources/2022](http://www.ncsciencefestival.org/DESN-resources/2022)**

## Suggestions for facilitators

Carefully read the entire activity guide, front and back, in advance of the event.

Set up the activity and do a practice run. Make an example!

Read the “Why is this Science?” section. Even if students aren’t interested in hearing this information, it gives you valuable background knowledge.

When students and their parents approach the activity, be excited to help them try something new!

Try to let the families set the style of your interaction: some families will be forthcoming and will direct the encounter, while others will need coaxing and encouragement. Be sensitive to different communication styles.

Ask lots of questions! You want to have a conversation, not deliver a lecture.

If you have multiple visitors at your station, direct your conversation to include all of them. Be sure each child gets a chance to answer questions and participate.

If one student seems particularly engaged in the activity while others are struggling, suggest that they work together.

Keep mental notes on what works well and what doesn’t. This feedback guides the way we improve activities from year to year!

## How you can help your facilitators

Download copies of the activities and instructions in Spanish and have a printed copy at each station. This way, all families can take part in the activity, even if your facilitator is not bilingual.

Circulate during the event. Check that your facilitators have everything they need.

Do crowd control: if you see a large crowd at one activity and no one at another, encourage people to check out the other activity.

Take photographs. We look forward to seeing your events on social media!

# Event Extensions

**Here are suggestions for extensions during the event, in your classroom and at home.**

We encourage you to make the night unique to your school community! You don't have to be bound to just the activities in the kit; here are some suggestions for how to expand your event!

## During Science Night

### Community-Created Mural

Hang a large piece of bulletin board paper near the welcome table and set out markers. Encourage students and their families to contribute drawings by seeding the paper with prompts such as:

- + Draw yourself doing science!
- + How do science and technology make your life better?
- + What's your favorite invention?

Or use your mural to focus on one theme of science. Ask students to draw animals and plants in an ecosystem, or planets and stars in outer space.

### Meet A Scientist

We encourage you to consider adding a 'Meet A Scientist' table. Are any of the parents/guardians at your school scientists or involved in STEM related fields? Is there a local college, organization, or business that would be willing to visit your school for STEM outreach? Research shows that this enhances a STEM event and is a very impactful experience for your students.

### Additional Activities

Feel free to add additional activities to your Science Night if you like!

Consider having each grade level present what they're currently learning in science to connect parents to the classroom.

Consider having science fair projects on display.

Consider creating additional activities. There are hundreds of wonderful ideas available online. As you look for additional activities, use these guidelines to choose good ones:

- + Will the activity appeal to all genders and ages, including adults?
- + Is the activity a good springboard for families to do further exploration at home?
- + Will the activity be able to accommodate teams of two or three family members?
- + Is the activity quick and hands-on?
- + Does the activity use a short list of readily available materials?

## In the Classroom

Consider taking on a Citizen Science project as a classroom (see page 24.) These don't need to take up a lot of time and online projects could be done as a brain-break between subjects.

Explore the resources offered and challenges suggested by various competitions: Science Olympiad, NC FIRST Robotics, Future Cities, and Odyssey of the Mind.

## At Home

Encourage families to try any experiments they enjoyed again at home! You can follow up after Science Night with a list of links to hands-on activity resources to keep families engaged and learning together.

Citizen Science projects rely on ordinary citizens to help scientists collect data. You can contribute to real scientific studies and there are lots of fun, easy-to-join options. See page 24 for some Citizen Science options that will work well for families in North Carolina. You can make copies to distribute at your event.

Encourage families to visit **[www.ncsciencefestival.org](http://www.ncsciencefestival.org)** and check out the calendar to see what other NC Science Festival events are happening in your area. Most of these are free!

## Additional Resources

The following organizations have provided some printed resource information in the 2022 Duke Energy Science Night kits:

+ **PBS North Carolina:** See also [www.pbsnc.org/sci-nc](http://www.pbsnc.org/sci-nc) and [www.pbsnc.org/lessonplans](http://www.pbsnc.org/lessonplans)

### The following websites offer great resources:

- + [www.moreheadplanetarium.org/explore/morehead-at-home/](http://www.moreheadplanetarium.org/explore/morehead-at-home/)
- + [www.ncsciencefestival.org/online-activities](http://www.ncsciencefestival.org/online-activities)
- + [www.ncstemcenter.org](http://www.ncstemcenter.org)
- + [www.ncsta.org/resources/](http://www.ncsta.org/resources/)
- + [www.ncafterschool.org/stem-hub/](http://www.ncafterschool.org/stem-hub/)
- + [www.ncarboretum.org/education-programs/professional-development/owl/](http://www.ncarboretum.org/education-programs/professional-development/owl/)
- + [www.naturalsciences.org/learn/resources](http://www.naturalsciences.org/learn/resources)
- + [www.noaa.gov/education/resource-collections](http://www.noaa.gov/education/resource-collections)
- + [www.scijinks.gov/menu/educators/](http://www.scijinks.gov/menu/educators/)
- + [www.nasa.gov/content/for-students-and-educators](http://www.nasa.gov/content/for-students-and-educators)

# Evaluation

**We need your feedback. Here's what we're asking you to do.**

## Why

The North Carolina Science Festival is committed to growing and improving each year. To that end, we collect evaluation data from each school following their Science Night and use the information to help guide our future planning.

## What

After your Science Night, we will email you with a survey link and ask you to report back your event statistics (including number of participants) as well as provide feedback on the activities and experience. In addition to completing the survey, you are most welcome to provide additional information and comments to us. See page 23 for contact information.

## When

Please complete your response as soon as possible, preferably one week after your Duke Energy Science Night and no later than mid May.

*Note: We are looking for 100% participation and will contact you with reminders :-)*

# Contact Information

**Questions? Concerns? Suggestions? Visit the website or call us!  
We want to help.**

## Website

The North Carolina Science Festival website has everything you need.

Visit **[www.ncsciencefestival.org/DESN-resources/2022](http://www.ncsciencefestival.org/DESN-resources/2022)** to find all of the following:

- + Downloadable PDFs of the planning guide, activity guides, instruction sheets and table cards in both English and Spanish
- + Downloadable templates for the newspaper press release, school website blurb and letters to parents
- + Downloadable flyer to promote and advertise your Science Night
- + Links to other handy resources

In addition, be sure to check out the NC Science Festival calendar to find other awesome events in your area: **[www.ncsciencefestival.org/calendar](http://www.ncsciencefestival.org/calendar)**

## Contact

If you can't find what you're looking for on the website, please contact us by email or phone:

**Email: [ncscifestschools@unc.edu](mailto:ncscifestschools@unc.edu)**

**Kim Moore**  
**North Carolina Science Festival**  
**Program Assistant**  
**919-962-3274**

**Jonathan Frederick**  
**North Carolina Science Festival**  
**Director**  
**919-843-8329**

# Be a Citizen Scientist!

**Citizen Science is a partnership between the public (that's you!) and scientists.**

You don't have to be a scientist to work on a real scientific study! Citizen Science enables people from all walks of life to advance scientific research.

## Natural North Carolina

Help the NC Museum of Natural Sciences document the changing biodiversity of our state by photographing the living things you see all around you and uploading your observations to the Natural North Carolina project through the iNaturalist website or app. Your sightings help scientists better understand the environment you live in and help you learn more about the species you encounter everyday.

Get going at [www.inaturalist.org/projects/natural-north-carolina](http://www.inaturalist.org/projects/natural-north-carolina)

## Students Discover

Research scientists at NC State University and the NC Museum of Natural Sciences teamed up to co-create a set of Students Discover lessons along with Kenan Fellows. They fall under four research project themes: Shark Teeth Forensics, Camera Trap Stakeout, Symbiosis in the Soil, and Meet your Mites. They also co-created lessons related to long-running Citizen Science projects.

Get going at [www.studentsdiscover.org/teaching-modules/](http://www.studentsdiscover.org/teaching-modules/)

## ecoEXPLORE

Developed by The North Carolina Arboretum, ecoEXPLORE is an incentive-based citizen science program for children in grades K-8 that combines science exploration with kid-friendly technology to foster a fun learning environment for children while encouraging them to explore the outdoors as they participate in citizen science.

Get going at [www.ecoexplore.net/about](http://www.ecoexplore.net/about)

## Want other options?

Visit **[www.scistarter.org](http://www.scistarter.org)** to find a project that interests you! There are HUNDREDS of projects that you can choose from!



# Acknowledgements

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- + Denise Young, Co-Founder, North Carolina Science Festival and Director of Bell Museum
- + Crystal Harden, Director of Programs at Morehead Planetarium and Science Center
- + Erik MacIntosh, NC Science Festival Program Manager and Curriculum Contributor
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  - Kara O'Dor
  - Kathryn Fromson
  - Lizza Igoe
  - Marissa Hartzler
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- + CHICLE Language Institute
- + Staff and student workers of Morehead Planetarium and Science Center and the K-Squad
- + Staff, students, and families of the Morehead Afterschool Program and Summer Camp

**Additional 2022 activities and/or materials produced in partnership with:**

- + PBS North Carolina



**APRIL 2022**

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