



# **DUKE ENERGY SCIENCE NIGHT**

**2020-2021 Program**

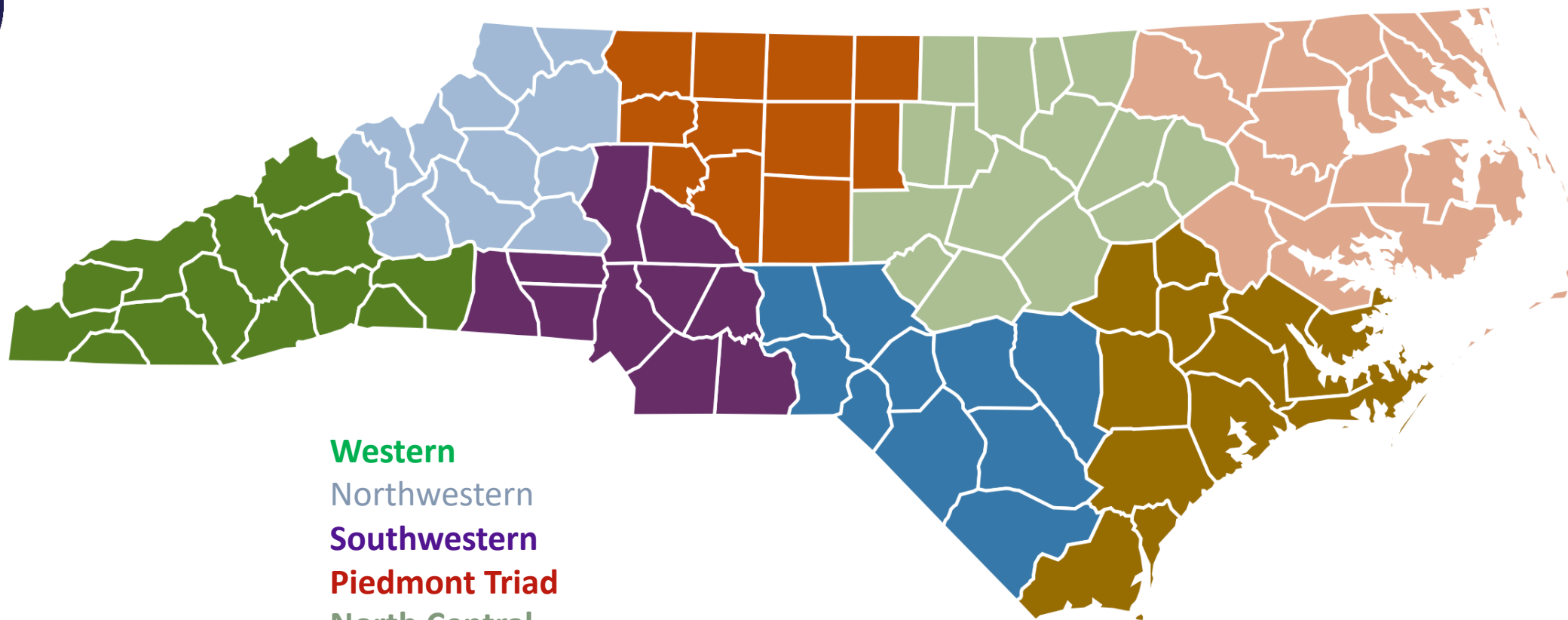
**Activity and Resource Overview Webinar**

# AGENDA



- Introductions and Poll Questions
- Program and Resources Overview
- Timeline
- 2021 Flexibility
- 2021 Activity Overview
- 2021 Materials Kit Unboxing and Preview
- Communications and Social Media
- Questions and Discussions





**Western**

Northwestern

**Southwestern**

**Piedmont Triad**

North Central

**Sandhills**

Northeast

**Southeast**

# PROGRAM AND RESOURCES OVERVIEW

Events organized by elementary schools with the support of NCSciFest staff and funding by Duke Energy Foundation

- Planning Guide
- Activity Guides, Instruction Sheets, and Table Cards
  - English and Spanish - online
  - Printed/laminated English - in kits
- Activities
  - Aligned to NC Science Standards (K-5)
- Materials Kits
  - Supplies for 200 participants
  - Banner, Flat Kelvin, fun festival giveaways
- Guidance and Support
- Instructional Webinars



# PLANNING GUIDE

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# ACTIVITY GUIDES & INSTRUCTION SHEETS

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

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

### + ACTIVITY NAME

- Appears on top of front side
- Name matches labels on the bag(s) of materials in the kit

### + BIG IDEA

- Sums up what the activity is all about

### + YOU WILL NEED

- Lists the materials we supplied and the ones you provide

### + SET IT UP

- Tells you how to set up the activity station

### + IT'S SHOWTIME

- Explains how to easily guide families through the activity

### + FUN OPTIONS

- Ahead of Time: provides options for you to consider
- During the Science Night: options for the facilitator to consider

### + WHY IS THIS SCIENCE?\*

- Explains how the activity relates to science, technology, engineering or mathematics
- Gives a basic explanation of the science going on in the activity

### + NORTH CAROLINA CONNECTION\*\*

- Shows how the activity is related to North Carolina's history & culture

*\*\* 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/2021](http://www.ncsciencefestival.org/DESN-resources/2021)



# TIMELINE



- *Oct 21, 2020: Welcome Webinar*
- *Nov 18, 2020: Virtual Learning Webinar*
- *Jan 2021: Online resources available*
- **Jan 20, 2021: Kit Unboxing and Activity Overview Webinar**
- **Feb 1, 2021: Kits will ship**
  - **Feb 15, 2021: Deadline to notify us of any kit issues**
- **Feb 24, 2021: Microscope Webinar and Photo Contest**
- **Mar 17, 2021: Galilean Cannon Webinar and Challenge**
- **Apr 2021: Use your DESN activity kits**
- **May 12, 2021: Program debrief and feedback Webinar**



# 2021 FLEXIBILITY



**Mindful of COVID scenarios, schools can use the activity kits in multiple ways:**

- Host an evening family science event
- Do the activities in classrooms during the school day
- Send activities home for students to do with their families
- Materials list online - if want to purchase supplies for more students



# 2021 ACTIVITIES

| Activity                         | Target Grade if<br>need to separate<br>in 2021 | Indiv<br>Materials<br>? | Grade   | Broad<br>Standard<br>Science | NC Standard                             | NC Standard |
|----------------------------------|--|-------------------------|---------|------------------------------|---|-------------|
| I Spy with my Microscope Eye* ** | All  | N                       | all     | Life                         | Structures of Living Organisms          |             |
| Galilean Cannon**                | All  | N                       | all     | Physical                     | Forces and Motion                       |             |
| Computer Vision                  | All  | N                       | 3,4,5   | Computer                     | (Artificial Intelligence)               |             |
| Parachutes                       | K  | Y                       | K,3     | Physical                     | Forces and Motion                       | K.P.1.2     |
| Garden in a Glove*               | 1  | Y                       | 1, 3    | Life                         | Ecosystems                              | 1.L.1.1     |
| Genetic Traits Bracelet          | 2  | Y                       | 2,5     | Life                         | Genetics                                | 2.L.2.1&2   |
| Fingerprints*                    | 3  | (Y)                     | 3       | Life                         | Structures of Living Organisms          | 3.L.1.2     |
| Capillary Flowers*               | 4  | (Y)                     | 2,3,4   | Physical                     | Matter Properties                       | 4.P.2.1     |
| Build a Cell*                    | 5  | Y                       | 5       | Life                         | Structures of Living Organisms/Genetics | 5.L.1.1     |
| Ring Gliders                     | All  | (Y)                     | 1,3,4,5 | Physical                     | Forces and Motion                       |             |

\* Could use digital microscope in classroom or virtual setting with this activity.

\*\* Will cover in a webinar

# 2021 MATERIALS KIT



# COMMUNICATION AND SOCIAL MEDIA



- We will gather information from each school
  - How you plan to use the kit
  - When you plan to use the kit
- We will email bi-weekly with tips and reminders
- Please Inventory kit – notify us by Feb 15 if problem
- Please use Flat Kelvin – post on Social Media
- Questions or problems – email [ncscifestschools@unc.edu](mailto:ncscifestschools@unc.edu)



# Questions?

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





**LEARN MORE:**

[www.NCSiFest.org](http://www.NCSiFest.org)

# Science For All



## April 2020

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