



DUKE ENERGY SCIENCE NIGHT

2020-2021 Program

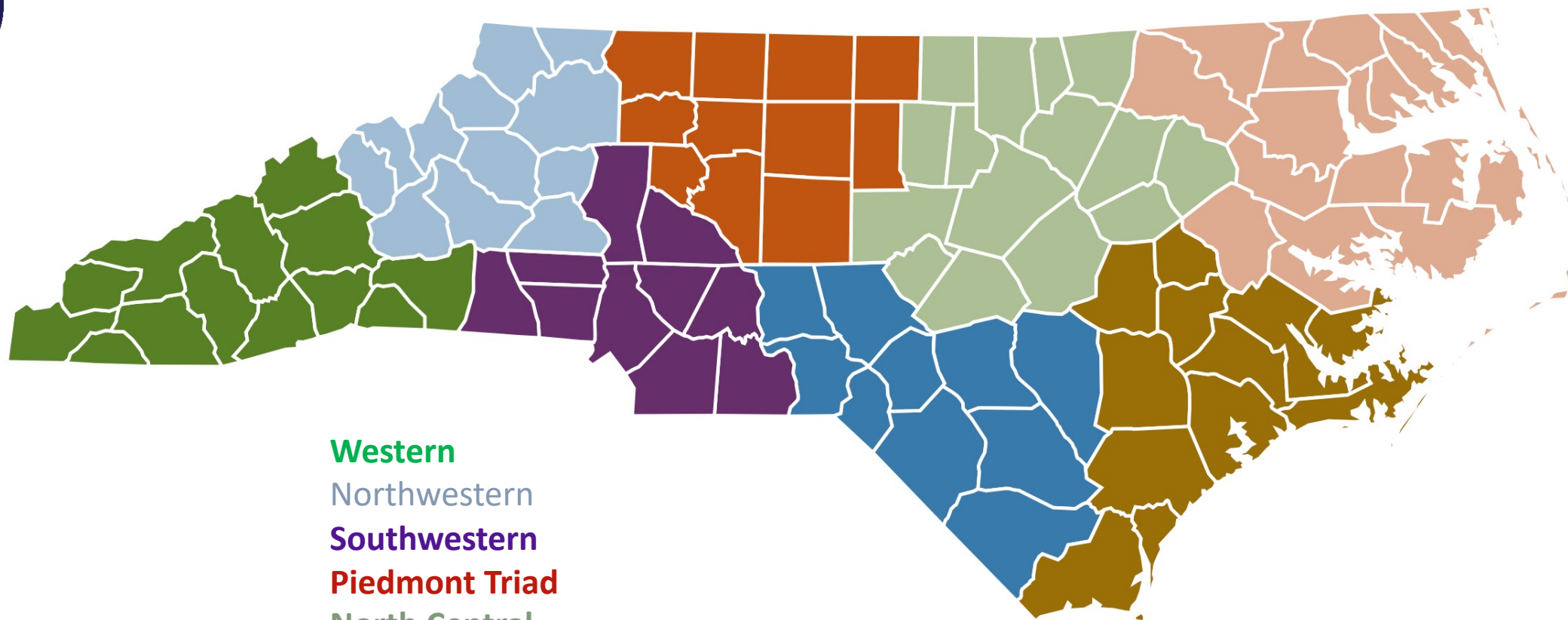
**Galilean Cannon and Computer Vision
Activity Overview Webinar**

AGENDA



- **Introductions and Poll Questions**
- **Timeline, Program, and Resources Updates**
- **Galilean Cannon Overview**
- **Computer Vision Overview**
- **Questions and Discussions**





Western

Northwestern

Southwestern

Piedmont Triad

North Central

Sandhills

Northeast

Southeast

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 shipped to schools*
- *Feb 24, 2021: Microscope Webinar and Photo Contest*
- **Mar 17, 2021: Galilean Cannon & Computer Vision Webinar**
- **Apr 2021: NCSciFest is almost here!**
 - **It's time to use the DESN kits!**
- *May 12, 2021: Program debrief and feedback Webinar*



NC SCIENCE FESTIVAL – APRIL 2021



- **Your Duke Energy Science Night is an official event**
- **For other Public Events: www.ncscifest.org**
- **Virtual Science Expo – April 16th**
 - Sessions for elementary audiences at 10am, 11am, and 2pm
 - Pre- and Post- event resources will be provided
 - Featured classrooms – can ask questions directly
 - See March 10 email for links to more detail and registration



www.ncsciencefestival.org/events/unc-science-week-virtual-expo

PROGRAM AND RESOURCE UPDATES



Final Planning

- Consult your Planning Guide
- Display your DESN Banner
- Announce to your school community – template online
- Need materials for >200? - list online
- Need to divide the activities? - list online

2021 DESN Online Resources page:

- Spanish versions of activities
- MANY EXTRA resources – e.g., webinar recordings
- Garden in a Glove Instruction Sheets were updated

www.ncsciencefestival.org/DESN-resources/2021



KIT USE SURVEY



Thank you for your responses

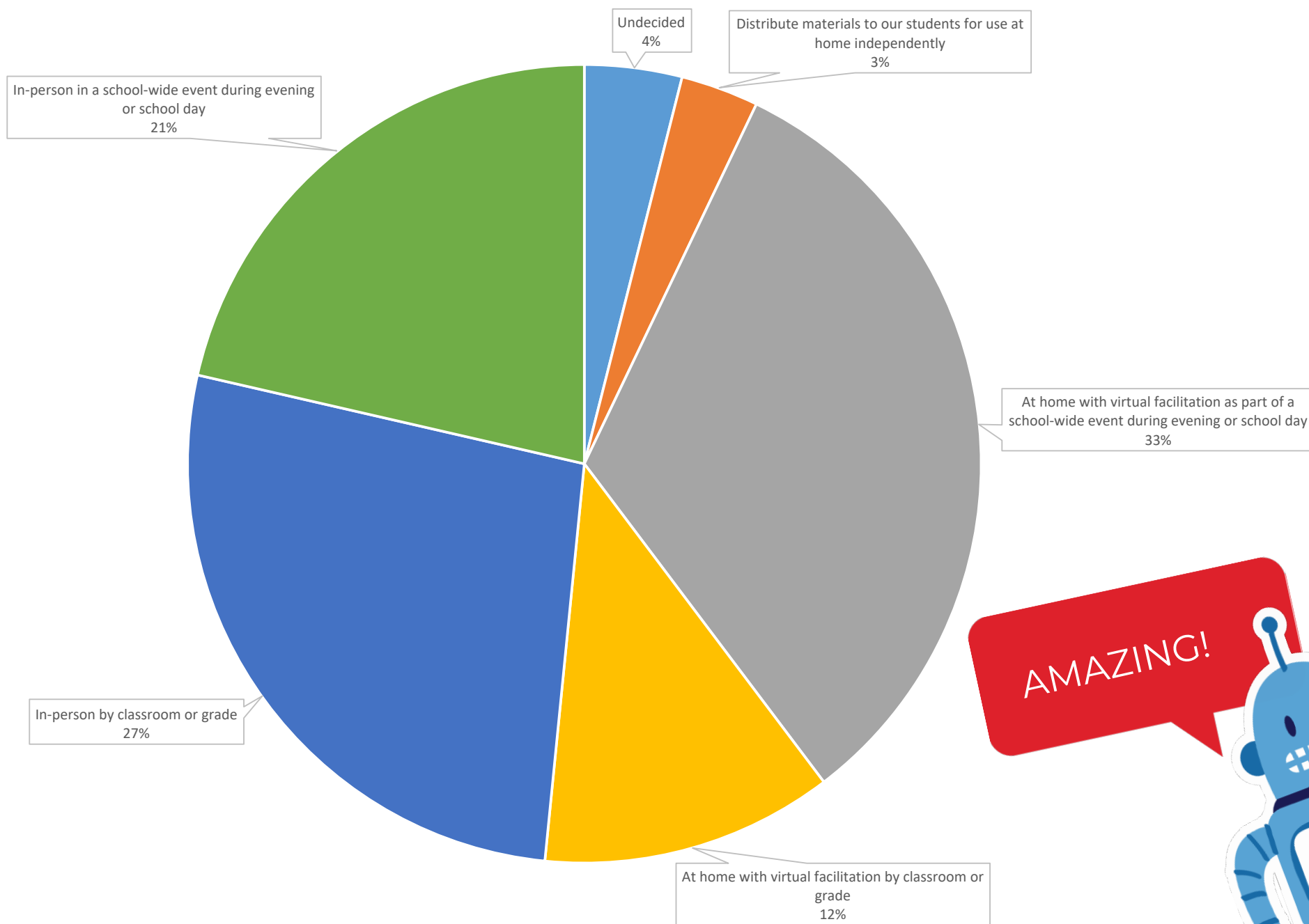
Thank you for being so amazing and resilient

Thank you for finding creative ways to create special school-wide events - even during COVID times

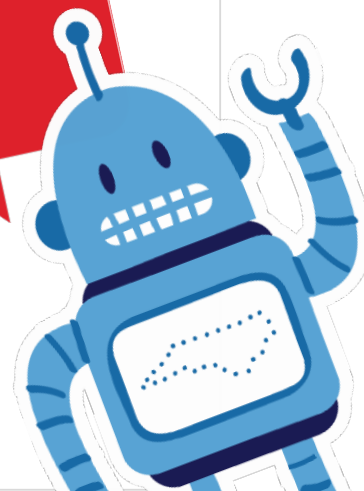


Thank you for all you are doing to bring a Duke Energy Science Night event to your school!

How do you plan to use your kit



AMAZING!



“I SPY WITH MY MICROSCOPE EYE” – PHOTO CONTEST



- Submit your best image for a chance to be featured in our gallery: <https://www.ncsciencefestival.org/I-Spy>
 - File size less than 5MB
 - Brief Photo Description
 - Now through April 30th
 - OK to submit more than one image
- One image will be selected to win a prize pack including a free Morehead Planetarium and Science Center virtual program
- Don't forget to take pictures of you and Flat Kelvin using the scope as well!



COMMUNICATIONS AND SOCIAL MEDIA

- We are emailing frequently with tips and reminders
- Questions – email ncscifestschools@unc.edu
- Take/ send photos
 - We are collecting them as documentation of Flat Kelvin's adventures!
- Follow us and post on Social Media
 - #GoKelvinGo, #ScienceForAll, #DEPowerfulCommunitates, and #NCSciFest
 - Tag NC Science Festival and Duke Energy

NC Science Festival handles:

Facebook: @ncsciencefestival

Twitter: @ncscifest

Instagram: @ncsciencefestival

Duke Energy handles:

Facebook: @duke.energy

Twitter: @DukeEnergy

Instagram: @Duke_Energy



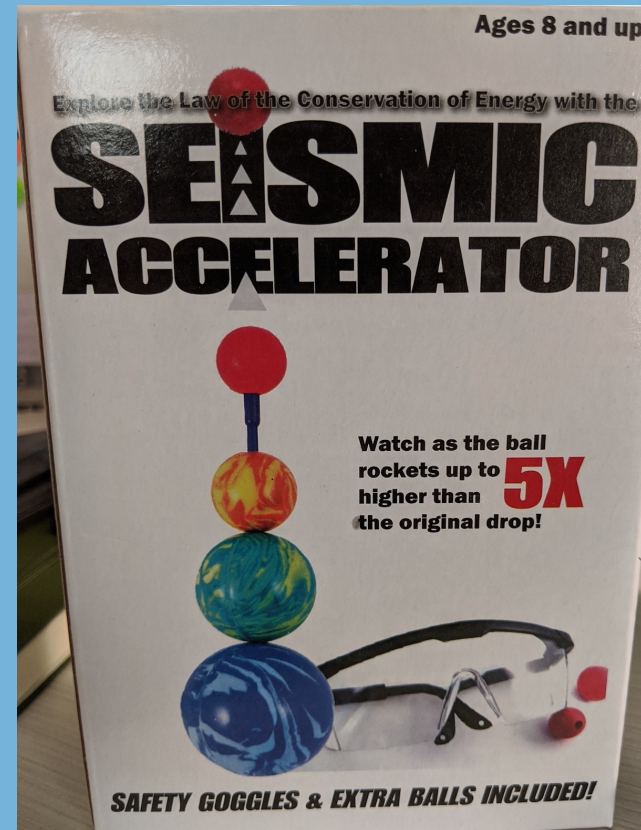


Questions?

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GALILEAN CANNON ACTIVITY OVERVIEW



GALILEAN CANNON ACTIVITY OVERVIEW



- The Science:
 - Law of Conservation of Energy
 - Elastic collision – transfers energy
- The Challenge: beat our world record!
 - <https://www.youtube.com/watch?v=jtavQSFB78A>





Questions?

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COMPUTER VISION ACTIVITY OVERVIEW



- The Science:
 - Computer Programming
 - Artificial Intelligence
- Additional Resources:
 - www.teachablemachine.withgoogle.com/
 - Teachable Machine is a web-based tool to create machine learning models with no coding required
 - How to tutorials and application examples



VIRTUAL WEBINAR TIPS



- Have a practice run before the webinar!
- Have a partner in the webinar
 - Manage meeting tools, questions, etc.
 - Give feedback to you if image not clear, etc.
- Synchronous
- Asynchronous
 - Create a video for use





Questions?

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LEARN MORE:

www.NCSciFest.org