

Staff, Coordinators, and Volunteers

CESTEM Staff

INTERIM CESTEM DIRECTOR & REGION 2 SCIENCE AND ENGINEERING FAIR DIRECTOR

Heddy Clark

ADMINISTRATIVE ASSOCIATE

Gianna Geiss

PROGRAM ASSOCIATE

Michelle Hafey

LEA Fair Coordinators

Duplin County Schools, Nicole Murray
New Hanover County Schools, Janice Silver
Onslow County Schools, Michelle Chadwick

Pender County Schools, Mary Strong
St. Mark Catholic School, Mary Zeigler
The Epiphany School of Global Studies, Robin Gibson-Brown

Category Judges

Oussama Al-Hmaid	Kendra Harrison	Alex Jolly	Morgan O'Connell	Jitka Virag
Walter Andrews	Russell Herman	John LaSala	Joan Patterson	Zhangping Wei
Jeremy Braun	Pepper Hill	Ai Ning Loh	Tracy Pena	Sam Zelic
Joseph Covi	Edwin Hofer	Kristina Mazzarone	Stephanie Powell	
Thomas Dinkins	Miran Hossain	Amy Moody	Angie Reid-Griffin	
Chris Gordon	David Johnson	Kimberly Oakley	Matthew Vincent	

Special Award Judges

STEP INTO STEM AWARD FOR FEMALE EXCELLENCE IN STEM	NORTH CAROLINA AMERICAN WATER WORKS ASSOCIATION/ WATER ENVIRONMENT ASSOCIATION	OUTSTANDING CREATIVITY AWARD	WAYNE HANSON AWARD FOR EXCELLENCE IN SCIENCE OR ENGINEERING
Uma Volety	Sara Gibson	Sue Kezios	Russ Herman

Award Ceremony Guest Speakers

Rachel Graham	Chair, North Carolina Science Fair Foundation
Van Dempsey	Dean, Watson College of Education, University of North Carolina Wilmington
Andres Valdiri	President, Science Fair Academy, Isaac Bear Early College High School
Sara Gibson	Science Fair Chair, Public Education Committee, NC American Water Works Assoc.
Uma Volety	Step into STEM Award Sponsor

Fair Volunteers

Jeremy Braun
Kerri Fowler
Meredith Howson
Bill Sterrett

Awards

Award Ceremony: Click [here](#) to view on YouTube.

Elementary

Exemplary

- Harmani Bland, Miranda Harrell & Makaela McMillan, Penderlea Elementary (Engineering/Technology) *
- Sloane Cheney, Topsail Elementary School (Chemistry) *
- Nathaniel Craven, Anderson Elementary School (Earth/Environmental Science) *
- Jairo Gonzalez, Malpass Corner Elementary School (Engineering/Technology) *
- Lydia Jones, Anderson Elementary School (Physics and Math) *
- Malaya Jones, Burgaw Elementary School (Chemistry) *
- Santiago Kimes, North Duplin Elementary School (Engineering/Technology) *
- Sammy Martin, Codrington Elementary School (Physics and Math) *
- Alexandra Masters, Masonboro Elementary School (Chemistry)*
- Haley McGuire, Bradley Creek Elementary School (Engineering/Technology) *
- Ronin Roberts, College Park Elementary School (Biological Sciences) *
- Abigail Vestal, Anderson Elementary School (Earth/Environmental Science) *
- Gentry Witmer, Bradley Creek Elementary School (Biological Sciences) *

Junior – Biological Sciences A

- First Place: Taylor Floyd, St. Mark Catholic School*
- Second Place: Christopher Luis Carbajal, Cape Fear Middle School*
- Third Place: Hunter Gerrell, Swansboro Middle School

Junior – Biological Sciences B

- Exemplary: Amulya (Mia) Volety, Roland-Grise Middle School*

Junior – Chemistry

- First Place: Kelly Quinlan, St. Mark Catholic School*
- Honorable Mention: Palmer Buffa & Benjamin Rasmussen, St. Mark Catholic School

Junior – Earth and Environmental Science

- Exemplary: Juliet Johnson, Noble Middle School*

Junior – Engineering

- First Place: Cayse Horan, St. Mark Catholic School*
- Second Place: Sebastian Mejia, Hunters Creek Middle School*

Senior – Biological Science A

- First Place: Regan Williams, Hoggard High School*
- Second Place: Leah Standen, The Epiphany School of Global Studies*
- Third Place: Davis Hall, The Epiphany School of Global Studies*

**Projects promoted to the state North Carolina Science and Engineering Fair*

Awards Cont.

Senior – Biological Science B

- First Place: Maya Roseboro, Isaac Bear Early College High School*

Senior – Chemistry

- First Place: Ashwin Varadarajan, Isaac Bear Early College High School*
- Second Place: Elizabeth Niven & Olivia Alexander, Isaac Bear Early College High School*
- Third Place: Madalyn Sinning, The Epiphany School of Global Studies
- Honorable Mention: Jasmine Watson, Duplin Early College High School

Senior – Earth and Environmental Science

- First Place: Logan Tamodon, Isaac Bear Early College High School*
- Second Place: Porter Bradsher, Isaac Bear Early College High School*
- Third Place: Ciera Roseboro, Isaac Bear Early College High School

Senior – Engineering

- First Place: Elizabeth Memering, The Epiphany School of Global Studies*
- Second Place: Nyasia Kenan, Duplin Early College High School*
- Third Place: Maia Ortiz, Emily McVeigh & Abigail Custer, Isaac Bear Early College High School

Senior – Math, Statistics, Data Science

- First Place: Sahil Patel, Maximilian Wang & Justin Guo, Isaac Bear Early College High School & Hoggard High School*
- Second Place: Scott McFarland, Isaac Bear Early College High School*
- Third Place: Johnathan Strickland, Isaac Bear Early College High School

Senior – Physics

- First Place: Quentin Luce, Isaac Bear Early College High School*
- Honorable Mention: Petra Humphrey, Isaac Bear Early College High School

North Carolina American Water Works Association/Water Environmental Association

Elementary Division

- First Place: Ellie Robinson, North Topsail Elementary School (Chemistry)
- Second Place: Sloane Cheney, Topsail Elementary School (Chemistry)
- Third Place: Julia Jarrett, Bradley Creek Elementary School (Earth/Environmental Science)

Senior Division

- First Place: Maya Roseboro, Isaac Bear Early College High School (Biological Science B)
- Second Place: Elizabeth Saffo, Isaac Bear Early College High School (Earth and Environmental Science)
- Third Place: Regan Williams, Hoggard High School (Biological Science A)

**Projects promoted to the state North Carolina Science and Engineering Fair*

Awards Cont.

Step into STEM Award for Female Excellence in STEM

- Haley McGuire, Bradley Creek Elementary School (Engineering/Technology)
- Julia Jarrett, Bradley Creek Elementary School (Earth & Environmental Science)

Outstanding Creativity Award

- Elementary: Juliet Gonzalez, North Topsail Elementary (Physics and Math)
- Junior: Kenneth (James) Pearson, Roland-Grise Middle School (Biological Science A)
- Senior: Chloe Bloom, Isaac Bear Early College High School (Biological Science B)

Wayne Hanson Award for Excellence in Science or Engineering

Scott McFarland, Math/Statistics/Data Science, Isaac Bear Early College High School
"Investigation of Variable Dependencies for Covid-19 Risk Factors and Community Vulnerability"

North Carolina State Fair

For a student to advance to the North Carolina State Science & Engineering Fair, they must have participated in a regional science fair and been invited by the Regional Director to advance to the state Science & Engineering Fair. More information can be found [here](#).

2022 NORTH CAROLINA SCIENCE AND ENGINEERING FAIR DATES (HELD VIRTUALLY ON ZOOM):

Division	Competition	Award Ceremony
Elementary	March 25	March 27 2PM
Junior	March 26	March 27 3PM
Senior	March 26	March 27 4PM

Student Projects

Elementary Division

Biological Sciences

Cahn, Parker. Can playing video games be considered an exercise? Bradley Creek Elem - Wilmington, New Hanover County

Curry, Matthew. Family Fingerprints. Surf City Elementary - Hampstead, Pender County

Petroff, Annderson. The EGG-cellent Day. Bradley Creek Elem - Wilmington, New Hanover County

Roberts, Ronin. Regrowing Food from Scraps. College Park Elem - Wilmington, New Hanover County

Witmer, Gentry. The Great Apple Debate. Bradley Creek Elem - Wilmington, New Hanover County

Chemistry

Cheney, Sloane. Liquid Buoyancy. Topsail Elem - Hampstead, Pender County

Gray, Makynli. Blowing Up a Balloon Without Blowing. Cape Fear Elem - Rocky Point, Pender County

Jones, Malaya. Dancing Raisins. Burgaw Elementary - Burgaw, Pender County

Jordan, Ian. What Preserves an Apple the Best? College Park Elem - Wilmington, New Hanover County

Kennedy, Harper. Can Milk Turn to Plastic? B F Grady Elem - Albertson, Duplin County

Masters, Alexandra. The Shape of Crystals: Mono versus Polycrystal Formation. Masonboro Elementary - Wilmington, New Hanover County

Robinson, Ellie. Ice, Ice, Baby. North Topsail Elem - Hampstead, Pender County

Woods, Jocelyn. Mean Green - The beast of all cleaners! Blue Creek Elem - Jacksonville, Onslow County

Earth/Environmental Sciences

Beck, Kellum. Plants & Soil Erosion. Sunset Park Elem - Wilmington, New Hanover County

Craven, Nathaniel. Where did all the stars go? Edwin Anderson Elem - Wilmington, New Hanover County

Jarrett, Julia. Can Plants Live and Grow When "Watered" With Different Types of Liquid? Bradley Creek Elem - Wilmington, New Hanover County

Vestal, Abigail. Water Filtering. Edwin Anderson Elem - Wilmington, New Hanover County

Williams, Jasleen & Kearse, Yamir. Why the Grass is Greener on the Other Side. Blue Creek Elem - Jacksonville, Onslow County

Engineering/Technology

Best, Porter. Go the Distance: Does the Number of Folds Determine the Distance of a Paper Airplane's Flight. North Duplin Elem - Mt. Olive, Duplin County

Bland, Harmani, Harell, Miranda & McMillan, Makaela. Walee. Penderlea Elementary - Willard, Pender County

Gonzalez, Jairo. Ski Lift. Malpass Corner Elem - Burgaw, Pender County

Goode, Mila. Colored Pencils: The Difference is in the Color. Blue Creek Elem - Jacksonville, Onslow County

Kimes, Santiago. Catapult Project. North Duplin Elem - Mt. Olive, Duplin County

Lane, Emerson. Aluminum Foil Boats. Cape Fear Elem - Rocky Point, Pender County

McGuire, Haley. Float Your Boat. Bradley Creek Elem - Wilmington, New Hanover County

Physics and Math

Bailey, Charlotte. Is the Stitch Worth the Kick? Edwin Anderson Elem - Wilmington, New Hanover County

Gonzalez, Juliet. Hair Scare. North Topsail Elem - Hampstead, Pender County

Jones, Lydia. Which Marker Brand Lasts the Longest if the Caps are Left Off? Edwin Anderson Elem - Wilmington, New Hanover County

Lewis, Madison. How does different air pressure affect how far I can kick a soccer ball? Edwin Anderson Elem - Wilmington, New Hanover County

Martin, Sammy. May the Course be with You. Codington Elementary - Wilmington, New Hanover County

Reiss, Alaynna. Electromagnets. North Topsail Elem - Hampstead, Pender County

Thigpen, Daniel, Coleman, Jackson, Lanier, Mason & Mejia, Jordan. What Things Can Float Better? Penderlea Elementary – Willard, Pender County

Junior Division

Biological Sciences A

Floyd, Taylor. I Can See Clearly Now. St. Mark Catholic School - Wilmington, New Hanover County

Gerrell, Hunter. Dogs reaction to music. Swansboro Middle - Swansboro, Onslow County

Luis Carbajal, Christopher. Are Isopods Attracted to Acidic or Alkaline Smells. Cape Fear Middle - Rocky Point, Pender County

Pearson, Kenneth. Does Aerosol Spray Affect Plant Growth? Roland-Grise Middle - Wilmington, New Hanover County

WillisMedina, Magdalena & Kring, McKenna. Decomposition of Leaves. Swansboro Middle - Swansboro, Onslow County

Biological Sciences B

Volety, Amulya. Causes and patterns of Salmonella outbreaks between 2006-2018. Roland-Grise Middle - Wilmington, New Hanover County

Chemistry

Buffa, Palmer & Rasmussen, Benjamin. Molecular Gastronomy and Spherification. St. Mark Catholic School - Wilmington, New Hanover County

Quinlan, Kelly. Bath Bomb BOOM. St. Mark Catholic School - Wilmington, New Hanover County

Earth and Environmental Science

Johnson, Juliet. Battle of the Pipes. M C S Noble Middle - Wilmington, New Hanover County

Engineering

Bunders, Lillian & Macdonald, Sophia. How to build a rubber band airplane that flies. St. Mark Catholic School - Wilmington, New Hanover County

Heaney, Maeve. Bridge Building and Busting. St. Mark Catholic School - Wilmington, New Hanover County

Horan, Cayse. The Best Paper Towel Experiment. St. Mark Catholic School - Wilmington, New Hanover County

Mejia, Sebastian. We have to proteg the egg. Hunters Creek Mid - Jacksonville, Onslow County

Sawyer, Maddie & Peppard, Sarah. Expensive vs Cheap Colored Pencils. St. Mark Catholic School - Wilmington, New Hanover County

Smith, Frannie & James, Sophia. Homemade Drink Dispenser. St. Mark Catholic School - Wilmington, New Hanover County

Smith, Marshall, Mechaet, Elijah & Chastain, Russell. Rat Trap Racer. Hunters Creek Mid - Jacksonville, Onslow County

Streeper, Matthew & Slacum, Payne. Building a F.M. Radio. St. Mark Catholic School - Wilmington, New Hanover County

Technology

Theobald, Peyton & McWhorter, Carson. Bristlebots. St. Mark Catholic School - Wilmington, New Hanover County

Senior Division

Biological Sciences A

Diers, Nate. Does Caffeine Spark More Than Just Joy? Duplin Early College HS - Kenansville, Duplin County

Hall, Davis. Antimicrobial Effects of Natural and Artificial Honey. Epiphany School of Global Studies - New Bern, Craven County

Standen, Leah. Germination & Growth Rate of Alfalfa Seed in Rockwool with Different pHs Over 120 Hours. Epiphany School of Global Studies - New Bern, Craven County

Williams, Regan. Collective behavior and coastal health: how individual personality influences population mortality in a marsh ecosystem predator-prey interaction. John T Hoggard High - Wilmington, New Hanover County

Biological Sciences B

Bloom, Chloe. Which Flour has the Power to Bake the World a Better Place. Isaac Bear Early College HS - Wilmington, New Hanover County

Roseboro, Maya. Curing Cancer: The Potential of Bugula neritina in New Hanover County Watershed. Isaac Bear Early College HS - Wilmington, New Hanover County

Chemistry

Niven, Elizabeth & Alexander, Olivia. Oxybenzone VS Titanium Dioxide. Isaac Bear Early College HS - Wilmington, New Hanover County

Sinning, Madalyn. To Fat or Not to Fat? 'Tis the Question. Epiphany School of Global Studies - New Bern, Craven County

Varadarajan, Ashwin. The Chemistry of Soaps. Isaac Bear Early College HS - Wilmington, New Hanover County

Watson, Jasmine. Heating Things Up. Duplin Early College HS - Kenansville, Duplin County

Earth and Environmental Science

Bradsher, Porter. Salt Tolerance of Soybean Crops. Isaac Bear Early College HS - Wilmington, New Hanover County

Heffner, Lilianna. How Brine Shrimp Are Affected Growing in Different Acid Rain Affected pH Solutions. Epiphany School of Global Studies - New Bern, Craven County

Lamken, Katherine. The Dirt on Dirt: Monocots, Dicots, and Soil Runoff. Isaac Bear Early College HS - Wilmington, New Hanover County

Roseboro, Ciera. Coagulation Station. Isaac Bear Early College HS - Wilmington, New Hanover County

Saffo, Elizabeth. Mother Natures Built-In Water Filter. Isaac Bear Early College HS - Wilmington, New Hanover County

Tamodon, Logan. Biodegradable Breakdown. Isaac Bear Early College HS - Wilmington, New Hanover County

Engineering

Kenan, Nyasia. Make It Your Task to Choose the Best Mask. Duplin Early College HS - Kenansville, Duplin County

Memering, Elizabeth. The Testing and Analysis of the Materials Strength Used in Model Bridge Construction. Epiphany School of Global Studies - New Bern, Craven County

Ortiz, Maia, Custer, Abigail & McVeigh, Emily. The Milk Solution for Plastic Pollution. Isaac Bear Early College HS - Wilmington, New Hanover County

Math, Statistics, Data Science

McFarland, Scott. Investigation of Variable Dependencies for Covid-19 Risk Factors and Community Vulnerability. Isaac Bear Early College HS - Wilmington, New Hanover County

Patel, Sahil, Guo, Justin & Wang, Maximilian. Machine-Aided Detection of Atrial Fibrillation through R-R Intervals. John T Hoggard HS and Isaac Bear Early College HS - Wilmington, New Hanover County

Strickland, Johnathan. Predicting Caretta caretta Hatches Using Local Meteorological Data and Applied Machine Learning. Isaac Bear Early College HS - Wilmington, New Hanover County

Physics

Humphrey, Petra. Minimizing Water Friction on a Boat's Hull. Isaac Bear Early College HS - Wilmington, New Hanover County

Luce, Quentin. What type of wood provides the best protection? Isaac Bear Early College HS - Wilmington, New Hanover County

Van Dyke, Hannah. Fishing Line Tensile Strength Test. Epiphany School of Global Studies - New Bern, Craven County