

The Reflector



Editor Dr. Mary Ellen Durham

December 2023



Outstanding Conference: 2023 NCSTA PDI!

One For The Books!

The NCSTA 2023 (PDI) Professional Development Institute was held November 2-3, 2023, at the Benton Convention Center in Winston-Salem, N.C. The conference center was bustling as science educators from across North Carolina collaborated, won prizes, met new colleagues, renewed relationships, explored cutting edge instructional materials, shared teaching strategies, celebrated the 2023 award winners, and engaged in activities designed to enhance science instruction.



First Stop Registration

Excitement was in the air on Thursday morning as PDI attendees stopped at the registration desk to gather conference information and to collect their name badges and totes. Frequent shouts of welcome emerged from the NCSTA board members helping with registration as they greeted first time attendees and returning members. Collegiality abounded as old friends reunited and new relationships were formed.



General Session

NCSTA 2023 President, Cliff Hudson, opened the General Session with a welcome to the attendees.



Following the NCSTA business meeting, Reid Wilson, the Secretary of the North Carolina Department of Natural and Cultural Resources, opened his remarks by acknowledging the exemplary work performed by the state's science educators. The Secretary then clarified the Department's mission as protecting and showcasing North Carolina's unique cultural and natural resources. Wilson outlined how the Department can partner with classroom teachers through its Aquarium, State Parks, Museums and Conservation programs.

Keynote Address

Dr. Sarah Bottemley, renowned STEM educator and engineer, gave the keynote address. After humorously sharing her professional journey, Dr. Bottemley emphasized thinking and process skill development as critical components of science teaching and learning. Citing exploration, testing, observation, measurement, data analysis, collaboration, and informed debate as critical components of STEM-based instruction, she challenged the PDI attendees to participate in an example of process-focused teaching. In response, those present at the address engaged in a skill-based learning activity where they jointly designed, created, tested and compared the effectiveness of "air rockets".



Concurrent Sessions

Putting it All Together and Moving Beyond-New Standards, New Ideas, New Directions was the theme of the 2023 PDI. Throughout the two-day conference, 139 practice-relevant concurrent sessions were offered. Based on what was thought to be most relevant regarding their professional interests and needs, attendees selected to attend presentations from three strands:

- Tools and Ideas for Embracing, Navigating and Implementing the New Standards
- Creative and Innovative Strategies for Elevating Teaching, Learning, Engagement, and Relevance through Inquiry-Based Approaches
- STEM Lessons and Ideas to address contemporary Current Events and Emerging Science Topics

Teaching tips, instructional strategies, and ideas for resources and materials were addressed in the presentations.



Reception and Awards Ceremony



Plasma Games, miniPCR bio, and the NCSTA Board sponsored a reception for the PDI participants on the first evening of the conference. Attendees enjoyed an array of heavy hors d'oeuvres from the buffet line and drinks from the beverage bar. The event allowed for both fellowship and networking.

The NCSTA 2023 Awards Ceremony followed the reception. Jennifer Stalls, Awards Chair and NCSTA District 1 Director, emceed the fun and exciting event.

NCSTA recognized statewide and district level nominees for their excellence in promoting science education with plaques sponsored by Carolina Biological and announced the Grant-A-Wish winners. Throughout the program raffle drawings were held providing multiple opportunities for attendees to win valuable prizes and classroom resources.



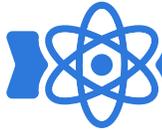
2023 VI HUNSUCKER AWARD

The Vi Hunsucker Award is named in honor of NCSTA's founder and first president, Vi Hunsucker. The award recognizes an outstanding science educator who has gone above and beyond the call of duty to serve the students and teachers of North Carolina. The 2023 recipient of this prestigious recognition is Angela Adams. Angela has dedicated her long professional career to helping teachers and promoting excellence in the science classroom. She has worked diligently to help educators, especially those working in the elementary grades, to acquire the instructional skills and resources necessary for sound science instruction. Affectionately known as the "Science Lady", Angela is a past NCSTA president and currently serves as the K-5 Science Curriculum Specialist for Cumberland County Schools.

Congratulations



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NCSTA Distinguished Service in Science Education in North Carolina Awards

The NCSTA Distinguished Service in Science Education Awards are presented to individuals in recognition of their significant contributions to the promotion of excellence in science education. The awards consider service in the recipient's school, school system, NCSTA district and at the state level. The 2023 Awardees are:

Jo Duckett Distinguished Elementary Service Award:
Eric Hamilton, Trillium Springs Montessori School

Nancy Wynn Distinguished High School Service Award:
Nancy Cattrell, Apex Friendship High School



Ann and Bill Palmer Distinguished Administrator/Supervisor Service Award:
Jose' Garcia, Greene County Schools



Don Bailey Distinguished College/University Service Award:
Debbie French, Wake Forest University



Non-School Setting Distinguished Service Award:
Amy Pitts, NCDEQ North Carolina Geologic Service



Distinguished Service Award - Commercial:
John Garrett, Lab-Aids



Congratulations

The NCSTA District Outstanding Science Teacher Awards

The NCSTA District Outstanding Science Teacher awards recognize educators who exemplify excellent, creative, innovative science instruction at the elementary, middle, and secondary grade levels. Those receiving the award for 2023 follow.

Dr. Carol Hampton Outstanding Middle School Student Teaching Award:
Gianna Alicea-Rochelle, Meredith College

District 1

Elementary School Outstanding Science Teaching Award:
Shelly Haskell, Knotts Island Elementary School

Middle School Outstanding Science Teaching Award:
Ashley Jones, Grifton School

High School Outstanding Science Teaching Award:
Klara Higgins, Innovation Early College High School

District 2

Elementary School Outstanding Science Teaching Award:
Andrea Aldridge, Snow Hill Primary School

Middle School Outstanding Science Teaching Award:
Crystal Bryant, Rochelle Middle School

District 3

Elementary School Outstanding Science Teaching Award:
Olivia Huneycut, Hearne Elementary School

Middle School Outstanding Science Teaching Award:
John Tercheria, Smithfield Middle School

High School Outstanding Science Teaching Award:
Dorothy Holley, West Johnston High School

District 4

Elementary School Outstanding Science Teaching Award:
Emma Smith, Broadway Elementary School

Middle School Outstanding Science Teaching Award:
Kurt Oswald, Spring Hill Middle School

High School Outstanding Science Teaching Award:
Stephen Roman, Lee County High School

District 5

Elementary School Outstanding Science Teaching Award:
Samantha Shore, Yadkinville Elementary School

Middle School Outstanding Science Teaching Award:
Beverly Howard, Allen Middle School

High School Outstanding Science Teaching Award:
Thomas Hefner, Middle College at UNCG High School

District 6

Elementary School Outstanding Science Teaching Award:
Amanda Yow, Oakboro Choice STEM School

Middle School Outstanding Science Teaching Award:
Joshua Welch, China Grove Middle School

High School Outstanding Science Teaching Award:
Melissa Terry, Stanly STEM Early College

District 7

Elementary School Outstanding Science Teaching Award:
Kandice Norman, B.H. Tharrington Primary School

Middle School Outstanding Science Teaching Award:
Allyson McFalls, Blowing Rock School

High School Outstanding Science Teaching Award:
Megan Conner, Mount Airy High School,

District 8

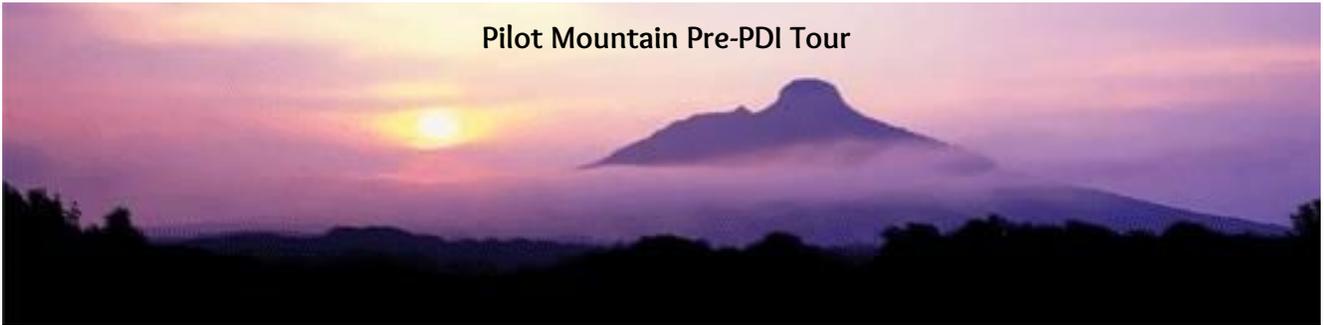
Elementary School Outstanding Science Teaching Award:
Andrea Walter, Polk Central Elementary School

Middle School Outstanding Science Teaching Award:
Bryan Wilkinson, Macon Middle School

Congratulations

Special Moments 2023 PDI

Pilot Mountain Pre-PDI Tour



A cadre of science educators participated in a pre-PDI science enrichment field trip to Pilot Mountain State Park. The trip was hosted by Sean Higgins, North Carolina State Parks; Lisa Tolley, NC Office of Environmental Education; Sarah Yelton, UNC Institute for the Environment; and Jason Anthony, Pilot Mountain State Park. Those on the trip had a guided tour of the new Visitor's Center and its natural science exhibits. The Park Rangers and the other hosts shared information regarding the educational opportunities and resources the NC State Parks provide for educators. In addition to learning about the unique geologic features of the park and the surrounding area, the participants were provided information regarding the scientific enterprises conducted at the park. These activities include monitoring migratory hawks, protecting natural resources, and preserving of healthy forest through the use of prescribed fires. Following dinner with their hosts, the participants were able to enjoy the magnificent sunset from the overlook atop the iconic monadnock.



Spin-a Wheel Winners



Spin-a-Wheel drawings generated fun and excitement throughout the PDI. Attendees collected Spin-a-Wheel tickets at registration, the general session, the exhibit hall and other conference activities. Each ticket provided an opportunity for the holder to win outstanding instructional resources and fabulous prizes. Spin-A-Wheel drawings were held periodically each day, culminating in a chance to win the "grand prizes" at the conclusion of the PDI. With each "spin" the ticket holder instantly won the prize indicated on the Wheel. Prizes included, but were not limited to, classroom sets, models, texts, virtual field trips and gift certificates.

Past President's Luncheon



In recognition of their past achievements and endless dedication to the advancement of science teaching and learning, NCSTA past presidents were celebrated at a luncheon sponsored by hand2mind. On the first afternoon of the conference 50+ year NCSTA member, Dr. Clinton (Jake) L. Brown, and past president, Carol Maidon, escorted the former leaders and the keynote speaker, Dr. Laura Bottemley, to Tulum Restaurant located in downtown Winston Salem. There, these former NCSTA leaders enjoyed delicious Mexican cuisine, reminisced, and discussed contemporary educational practices.





Reality Check

NCSTA recognizes the many challenges faced by those beginning their careers as science educators and strives to assist and support novice teachers. As part of the Association's outreach efforts, Reality Check, a casual meet and greet pizza party, was held for pre-service science teachers attending the PDI.

Laura Lowder, NCSTA Preservice Teachers and University Liaison welcomed the student teachers and encouraged them to "grab a slice" and enjoy their special session. Dr. Mary Ellen Durham, The Reflector editor, shared information regarding the benefits of NCSTA membership. The students were then joined by NCSTA Executive Committee members Cliff Hudson, Adrienne Evans, Tom Savage, Brad Woodard and guest Michael Giddens. The pre-service teachers were encouraged to ask questions and identify their concerns upon entering the educational arena. Candid, sincere, and often humorous discussions followed. Topics addressed included teaching tips, discipline ideas, resource options, as well as how to preserve personal time, ways to "say no" when appropriate, and suggestions regarding how to make tedious instructional tasks more pleasant. Michael Giddens made the concluding remarks and briefly shared his career story. He related how several years ago, he had been a nervous pre-service teacher sitting in Reality Check and explained how the information he had gleaned, and the professional connections he made through NCSTA proved to be a strong support as he started teaching.



2023 Grant-a-Wish Winners

NCSTA sponsored a \$200 mini grant, **May Your Wish Be Granted**, to assist teachers in securing instructional resources.



Proposals were evaluated by the Board considering feasibility, sustainability, number of students affected, and value (alignment of the grant to current science standards). The following mini grant winners were announced during the PDI awards ceremony.

District 3

Daneille Ortiz, Bethlehem Elementary School, Taylorsville, NC

Wish Granted: **SPECIMENS, FROG DISSECTION**

Aubrey DiOrio, Turner Creek Elementary School, Cary, NC

Wish Granted: **MAKEY MAKEY STEM KIT**

District 4

Carla Butts, Overhills Elementary School, Spring Lake NC

Wish Granted: **DIGGING FOR DINOS ACTIVITY**

District 6

Jennifer Griffin, Swansboro High School, Swansboro, NC

Wish Granted: **GO DIRECT TRIS-COMPATIBLE FLAT pH SENSOR**

Laura Cabaniss, Northwest Cabarrus STEM Middle School, Concord, NC

Wish Granted: **STEM MICRO:BIT CODING KIT**

Leigh Davis, Battleground Elementary, Lincolnton, NC

Wish Granted: **BOTTLE ROCKET LAUNCH and MEASUREMENT KIT**

District 8

Kristin Holt, Jackson County Early College, Sylva, NC

Wish Granted: **LABORATORY TABLE RISERS and LIQUID WASTE CONTAINERS**

Photo Ops

Positive, invigorating experiences are often archived with a photograph. Many PDI attendees, cell phone cameras ready, took advantage of the NCSTA photo station to create personal memories of the 2023 PDI.



Exhibit Hall

The NCSTA PDI attendees had the opportunity to examine and evaluate contemporary science education resources. Fifty-four exhibits showcasing cutting edge STEM resources and learning opportunities were displayed at the 2023 PDI. The exhibitors interacted directly with the conference attendees as they strolled through the hall. Science educators were able to peruse texts, planning guides, and worksheets; assess instructional software and visual aids; examine models, specimens, and classroom sets; test manipulatives and hands-on activities; learn of field trips, camps and other science-related agencies' offerings; receive information regarding professional development opportunities; and collect samples of a myriad of resources.



Workshop

During the PDI, NCSTA sponsored a special workshop, **Tools to Support Diverse Learners and Early Career Educators**. The workshop focused on the needs of lateral-entry and long-term substitute science teachers. Topics addressed included;

- How to Teach Effective Science Inquiry Lessons
- Classroom Management Tips for the Science Classroom and Lab
- Dos and Don'ts of Science Demonstrations
- Measuring Understanding of Science Concepts
- Practicing Safe Science
- Planning to Meet the New Science Standards
- 5E+ Science Lesson Cycles
- Technology Tools for Science Educators

Under the guidance of Brad Rhew and Joshua Hunter, workshop participants examined resources, piloted lessons, and assessed learning activities.



Sponsors

NCSTA commends the 2023 PDI sponsors for their commitment to enhance science teaching and learning in North Carolina. Their contributions and support are greatly appreciated.

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Past Presidents' Lunch

miniPCR bio

Reception

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Reception

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Workshops/Sessions



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PDI Highlights



BEGINNING
to...



Schools



the END



YOUNG



SEASONED



IN BETWEEN

ALL AGREE NCSTA PDI 2023 WAS OUTSTANDING!!

Looking Forward

2024 promises multiple opportunities for promoting excellence in science teaching and learning in North Carolina. The NCSTA Board encourages you to periodically review THE REFLECTOR and check the NCSTA [website](#) and [FACEBOOK](#) page regarding the status of science education in the state. Don't forget to mark your calendars for NCSTA DPI 2024 in Greensboro, NC.

NCSTA PDI

SAVE THE DATE!!

November 7-8, 2024

Location Change

UNC-G Elliott University Center