

Applied Research Center Student Newsletter

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**Boys and Girls Club of Suffolk
3rd Annual Science Fair – July 13, 2016**



On July 13, 2016, the third annual William & Mary (W&M) Applied Research Center (ARC) Science Fair was held at the Boys & Girls Clubs of Suffolk located at John F. Kennedy Middle School. The science fair was developed and organized by Amy Wilkerson, Laboratory and Research Manager at W&M's ARC. Over 100 elementary and middle school age girls and boys participated in the event, including several high school volunteers.

Instead of a traditional science fair where the students design the projects, Amy was able to coordinate with W&M, Christopher Newport University (CNU), Norfolk State University (NSU), Virginia Union University (VUU), Jefferson Lab (JLab) and the Nansemond River Preservation Alliance (NRPA) and the Virginia Army National Guard to provide science, technology, engineering, and mathematics (STEM) outreach displays, demonstrations, and hands-on activities. It was a very busy afternoon as the students moved through over 15 different stations.



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William & Mary Activity Stations

Fire and Safety



Brad Meirs and Hannah Freeman instructed participants on how to prevent fires and provided information on how to stay safe during a fire. The children were particularly entertained by an interactive display where they extinguished virtual flames.

Environmental, Health & Safety Demonstration



Sandra Prior, W&M's Director of Environmental, Health and Safety, and Joe Isley demonstrated the Heimlich maneuver for participants along with life-saving CPR techniques and general first aid treatments. The participants definitely enjoyed the life size training aids.





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William & Mary Activity Stations

Applied Research Center Surface Characterization



Ben Kincaid demonstrated how 3-D printers work before an intrigued audience.



Song Vick and Lopa Das demonstrated several optical illusions to participants.



Participants were also able to take a break at our art table.



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**Jefferson Lab
Science Undergraduate Laboratory Internships (SULI) Activities**



Thomas Haines, a rising senior at West Virginia Wesleyan College, assisted CNU with their spectrometer demonstration.



Cynthia McCord, a recent graduate of the University of West Florida, handed out spectrum diffraction glasses as part of a demonstration on the spectrum of light.



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Norfolk State University (NSU) Activity Stations



Alan Rowe, Messaoud Bahoura, and Kevin Tanyi taught scientific concepts by using a variety of demonstrations involving chemical reactions, balloons and optical illusions.



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Christopher Newport University (CNU) Activity Station



Clay Huff explained the spectrum of light to participants with the aid of a spectrometer.

Virginia Union University (VUU) Activity Station



James Wright and Gerard McShepard handed out gifts and materials about their university to participants.



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Virginia Army National Guard Activity Station



Sam Worrell and Nicole Thomas talked to participants about opportunities to serve in the National Guard, and also handed out materials and gifts.

Nansemond River Preservation Alliance (NRPA) Activity Station



Waterway Demonstration

NRPA representatives Elizabeth Taraski and Aden Staples provided a demonstration involving our local waterways. Participants received training and information about the Nansemond River and learned about what is needed to protect this river and other waterways in our community. A demonstration was provided showing how pollution and chemicals can enter our waterways and the techniques that are used to test water quality.



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THANK YOU!

Thank you to W&M for generously supporting the science fair and thank you to all the volunteers, universities and organizations for their efforts to make this a very successful event. We also want to express our gratitude to Vertical Carbon Technologies, Inc. (Xin Zhao, Founder/CEO) for providing backpacks for all the participants again this year. Amy was able to fill the backpacks with items donated by Jefferson Lab and W&M, including water bottles from the Office of Diversity and Equal Opportunity and items from the Office of Procurement, as well as ball caps and pens from Kurt J. Lesker Company.



A special thank you to Reggie Carter, Suffolk BGCS Unit Director, who guided the students through the stations.