

February 2014



College of William and Mary

Applied Research Center Student Newsletter

Build Your Own Mini-Spectrometer Workshop



Amy, Brandt and Nick are pictured here with fifteen Boys and Girls Club participants that included 6th, 7th and 8th graders from John F. Kennedy and Kings Fork Middle Schools in Suffolk.

Last year, Amy Wilkerson, WM-ARC Lab Manager, came up with an idea to reach out to students in rural Suffolk, Virginia. She developed an exciting science enrichment project titled “Fill the Gap” and was awarded a 2013-14 IDEA grant from the Office of Diversity & Equal Opportunity at William & Mary. Through her “Fill the Gap” project, Amy plans to introduce the students to materials characterization.

On February 7th, Amy began the first phase of her project with a group of middle school students participating in the Boys & Girls Club of Suffolk (BGCS) after-school program. Amy, along with lab techs Nick Moore and Brandt Robertson, traveled to John F. Kennedy Middle School to provide a hands-on experience with a mini-spectrometer for 15 students. This activity included an introduction to visible light spectroscopy and concluded with the students building their own mini-spectrometer. Once the spectrometers were assembled, the students were able to attach them to a laptop or smart phone camera and then download the applicable software. The students practiced with their spectrometers using the two different light sources that Amy provided and were able to take their spectrometers home to continue their investigations.

Amy has already scheduled two more visits with BGCS to bring the mini-spectrometer building workshop to an additional 30 students.

Build Your Own Mini- Spectrometer - continued

Nick, who works at the lab while pursuing his college degree at Old Dominion University, volunteered to provide assistance with this project and gained valuable teaching experience in the process.



Brandt enjoyed his afternoon away from the lab and was able to share some of his lab experience with the students as they were building their spectrometers.

One of the students was able to attach her spectrometer to her smart phone. She was amazed by the colorful spectrum that resulted from the light source, and quickly snapped a picture!

