

NEXT MONTH:

NOV 6 PARENT-TEACHER
CONFERENCES

NOV 13 ALL DAY ELECTIVE

NOV 18 DR. MCGUIRE
PARENT SESSION

NOV 19 DR. MCGUIRE
STUDENT SESSIONS

NOV 19 GOVIE GALA



RVGS Newsletter

Issue 3 October 30, 2018

Shelly Challenge Continues to Grow by Inviting Other Gov Schools



Eight Governor's Schools from across Virginia brought 40 students to participate in a STEM Challenge developed in collaboration with industry partner, Burns & McDonnell Engineering. RVGS Director Mark Levy and Burns & McDonnell engineer Brandyn Turley opened the event by reiterating the importance of working in diverse teams to solve real-world problems.

This was the first time that the Roanoke Valley Governor's School invited other Governor's Schools to participate. Teams were comprised of students from different schools and the interschool collaboration was exciting to see. Mr. Levy shared, "When we first established the Shelly STEM Challenge, I had always intended to eventually open the door to other schools, and I'm thrilled to see that come to fruition." The visiting students and schools reciprocated the enthusiasm to come together for the event.

Mr. Levy explained the challenge and objective to students: To manage and remediate stormwater associated with a parking garage construction project. The object was to improve the efficiency of DEQ-mandated stormwater management by removing runoff pollutants from rainwater as it moved through the gutter downspouts. There were three primary criteria for the students to consider as they worked - effectiveness in removing target pollutants, ability to handle required amounts of rainwater, and cost/feasibility of the project.

The eight groups were judged on the three components, and Group

7 was named the winner. According to the Burns & McDonnell judges, their design had the best approach and creativity to handling the flow of water during peak rains, which they accomplished by using a weighted diverter valve. Luke Suess, an RVGS student and member of Group 7 indicated that this was a great experience, which involved lots of challenges. He said, "it was good working with other teams, and working on two different solutions to problems - chemistry-based and more mechanically based, which ended up performing better."

The second placed winners, Group 6, also received praise and feedback from the Burns & McDonnell judges. "Group 6 used an analytical approach to solving the problem. Using analysis to determine why each of their attempted solutions failed, they would have successfully corrected them if they had more time." Burns & McDonnell's judges indicated that they were impressed with the overall designs and the creativity of each group. They were also "impressed with the students ability to effectively communicate the engineering aspects of the challenge. It was exciting to see high school students who had little real-world engineering experience envisioned how technology could enhance their designs."



Message from the Director

That warm start to the fall is certainly over, and you can definitely feel our transition to November! October wrapped up with a bang as the Shelly Challenge expanded to a state-wide event, showing the outside community that RVGS is a special learning environment that can't be topped.

November is shaping up to be another exciting month. Research projects will start to come into focus, with an all-day elective period this month and further developments each week. RVGS will be visited by Dr. Saundra McGuire - respected author, study/learning expert, and professor. She will present study skills and success strategies to our students and staff on November 19. Additionally, Dr. McGuire will offer a session for parents on the night of 11/18.

And of course, who can forget the Govie Gala is coming up on Monday November 19th?! New students - you don't want to miss out on this RVGS tradition. You can't find a more enjoyable dance than the famed Govie Gala! I hope you see you there.

As I wrap up, let me point out that we are a good way through the semester already. From a raw numbers prospective, the more grades that accumulate, the harder it is to push a grade upward. Students, if you aren't happy with your current grades, you need to act now to make an impact. There are limited hours each day, so it is crucially important to be efficient and effective. One hour of focused work can easily get more accomplished than three hours of 'work' continually interrupted by Instagram and YouTube. Don't make excuses...make plans to follow through on action plans to support your goals!

Counselor's Corner

First semester is flying by and the 2nd interims will be going out on October 31st. Our students are making a great deal of progress and are working hard to keep their grades up while also participating in a variety of activities outside the school day. The main early action/decision deadline for seniors is November 1st. This is both an exciting time for seniors and their parents and also a very stressful time. I promise, you **will** get through it! One of our fun fall traditions at RVGS is our annual Ultimate Frisbee Competition for United Way. The Competition took place the first week of October. Students were invited to form grade level teams and each player donated \$5 towards United Way to play. This year we had 8 teams representing both morning and afternoon and all grade levels. Students from six of our seven school districts participated and a total of \$310 was collected. The winning team (and winner of the pancake breakfast!) was "Lukes' Kambucha Ultimate Department." The team members were Luke Suess, Luke Gardner, Noah Gettings, Henry Holbrook, Charlie Murphy, Evan Gross, Case Eshelman, Hayden Gray, Ella Higgins, Mary Grace Giles and Nathalie Lemon. Congratulations team!

1st Place Winners—Group 7



Hunter Shockley (Piedmont Governor's School); Luke Suess (Roanoke Valley Governor's School); Matthew Scarlatescu (Roanoke Valley Governor's School), and Jenna Velasquez (Blue Ridge Governor's School)

2nd Place Winners—Group 6



Uyen Tran, Roanoke Valley; Dezyre Alexander, Blue Ridge; Korben Robinson, Chesapeake Bay; Erik Scarlatescu, Roanoke Valley; and Calvin Siemens, Shenandoah Valley and three judges from Burns and McDonnell

RVGS Participants



Fady Abdelmalak, Adi Iyer, Charlie Murphy, Luke Suess, Simran Gill, Jonah Vanke, Henry Holbrook, Uyen Tran, Erik Scarlatescu, London Paige, and Matthew Scarlatescu

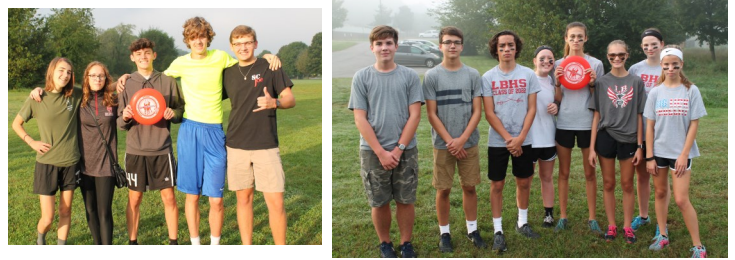


Lukes' Kambucha Ultimate Department VS The Dough Boys. Lukes' Kambucha won 7 to 4.



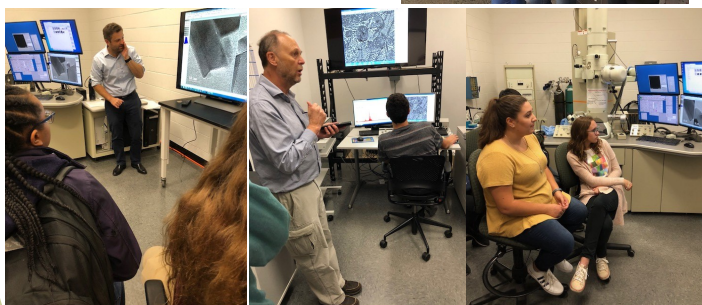
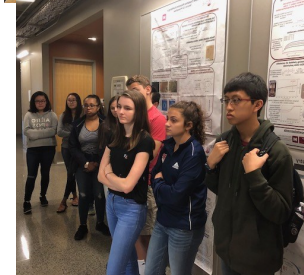
Ultimate Frisbee Action Shots

Ultimate Frisbee Winning Teams Prior to Play-Off



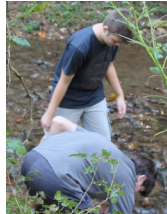
VA TECH LABS

In September, thirty-one students in Mr. Stephen Smith's Chemistry Research class traveled to VA Tech, and observed four labs. It was a full day visiting the Fabrication, both 3-D Printing labs and Dr. Westwood's lab on parasitic plants. Natalie Overstreet, a sophomore, indicated she enjoyed the Parasitic Lab best because "It was a larger lab and it showed us the scale you can get a project to vs the smaller and less contained our projects are." She felt that the different types of parasitic plants seemed to have a mind of their own as far as the directions they grown, and "that plants knew what to do and how they use the resources around them in unique ways."



Testing Water Quality

Mr. Levy's AP Environmental class, along with Mr. Wages, walked to Murray's Run to test the water quality and count invertebrates for a biodiversity analysis.



Dr. Sandra McGuire, Chemist
Mark Your Calendars

On November 19, 2018, Dr. Sandra Yancy McGuire, an internationally recognized chemical educator, author and lecturer, will provide strategies to RVGS students on how to become successful in their coursework and careers. To support the personal development of RVGS students, Dr. Sandra McGuire will provide advice and recommendations based on the 2018 student version of her book, *Teach Yourself How to Learn*. Dr. McGuire will conduct a faculty session on teaching STEM students how to learn. And on November 18, 2018, she will provide guidance to RVGS parents on ways they can support and encourage their child in leading a well balance and productive life.

Alumni Spotlight on Stefanie Bartley



Stefanie Bartley
Stefanie graduated from William Byrd High School and the RVGS in 2002. While at Byrd, Stephanie played in the Marching & Concert Band, participated on the Academic Competition Team, Amateur Radio Club, and ran Outdoor Track.

Stefanie has been a mover and shaker. After high school, her goals were to obtain a Bachelor's Degree in Aerospace Engineering, work on design/testing of manned spacecraft, and eventually become an astronaut. Stephanie has continued to follow her dreams.

What have you accomplished in the first five years after graduation? After completing my Bachelor's Degree in Aerospace Engineering at Virginia Tech in 2006, I moved to Maryland to work at NAVAIR as a civilian engineer at Patuxent River Naval Air Station. Some of the highlights of the first 5 years of my career at NAVAIR include becoming the STOVL-mode Flying Qualities technical expert for the F-35B and AV-8B, participating in shipboard testing on US and UK aircraft carriers, and completing the Fixed Wing Diploma Course at Empire Test Pilot School in Boscombe Down, England. Recently, I had the opportunity to travel to several countries in support of Foreign Military Sales in my role as the H-1 Foreign Military Sales Lead Engineer, including one in which I was the technical representative for the H-1 Program at a formal dinner at the US Ambassador's Residence in Prague with members of the Czech Parliament and Ministry of Defense.

What are your current roles and job duties?

Currently, I am the Sustainment "Class Desk" for the H-1 Program Office. A "Class Desk" is the single point of contact for all engineering issues for an aircraft platform. In particular, I am responsible for managing all engineering efforts related to improving the overall readiness and mission availability of the AH-1Z, UH-1Y, and AH-1W aircraft. This includes ensuring integration across all technical disciplines to address readiness issues that are encountered in the fleet, adjudicating quality escapes on the production line, and managing the systems engineering process for ongoing projects to improve the reliability and durability of various readiness degraders on the H-1 aircraft. In addition, we are planning and establishing the sustainment strategy for managing and maintaining the AH-1Z and UH-1Y fleet for years to come after production is complete.



What are your hobbies/community services?

I've been a Private Pilot since 2007 and co-own a 1977 Grumman Tiger with a friend. I have also been a member of the Washington Redskins Marching Band since 2006. I picked up dancing again a few years ago, and have been doing tap and contemporary dance competitions with an adult group for the last few years. Other hobbies I enjoy are photography, traveling, and waterskiing.



How has your Gov. School experience assisted your professional, educational and personal growth?

Governor's School prepared me for future coursework at Virginia Tech, but also provided a challenging and motivating environment with like-minded students from around the county. I think the college-like environment taught me how to study and manage challenging workload, but the Project Forum & elective courses helped re-enforce my passion and interest in aerospace engineering.

Any advice you would like to share with current students?

Of course, go to class, do your course work and study hard, BUT find something outside of your studies that you enjoy so that you have a little break / outlet away from class. Even if you are passionate and enjoy your major and the work you do, it is good to have an outlet to do something completely different!



By Siclinda Canty-Elliott

Measuring the amount of p-Nitrophenol using the Vernier SpectroVis Spectrometer — Mrs. Cindy Bohland

