



# THE GOVERNOR'S SCHOOL for SCIENCE AND TECHNOLOGY

Spring 2012

## Student Highlights



Governor's School student Mia Knowles from Phoebus High School is a **Gates Millennium Scholar** for the Bill Gates Scholarship Program!

Jaquan Outlaw, Governor's School student from Heritage High School is also a **Gates Millennium Scholar** for the Bill Gates Scholarship Program!



## Science and Humanities Symposium

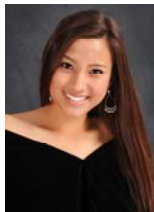
The following GSST students attended the 2012 Virginia Junior Science & Humanities Symposium at James Mason University March 15th and 16th where they gave oral presentations to a panel of university evaluators: Nile Booker, Hannah Cagle, Abigayle Ceriani, Esther Cho, Maurice Hayward, Joey Hsu, Saman Khan, Rebecca Meyer, Carli Perkins, Kayla Schoch, Shelby Snowden, and Graham Young. Rebecca Meyer, Governor's School student from Grafton High, was recognized as Outstanding Researcher in the Environmental Science Category and nominated to participate in the Genus Olympiad! The Genius Olympiad is an international high school project fair on environmental studies. The Olympiad will be held in June at the State University of New York at Oswego.

The Bill Gates Scholarship Program provides winners with funds to attend any United States college or university through graduate school.



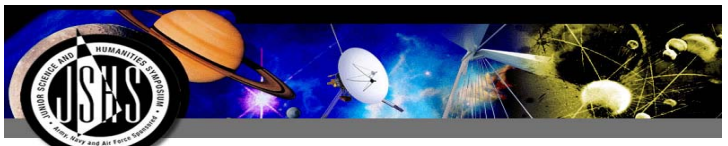
Michelle Seywald was named **Distinguished Young Woman of Virginia for 2012** at the state competition in Lynchburg and will compete for the national title in July.

Hannah Swenson was second runner-up at the state level.



Distinguished Young Women is the largest and oldest national scholarship program for high school females. The winners are chosen based on excellence in academic achievement, physical fitness, on-stage performance skills, and the ability to think and communicate clearly.

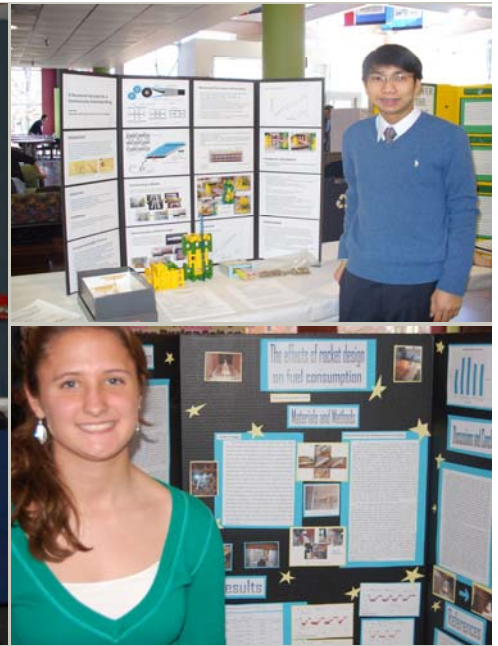
Hanna Swenson was also selected as a **National Center for Women & Information Technology (NCWIT) regional award winner**.



*"I want to thank you and the entire governor's school staff for all you have done for Teresa. She finished her first semester at UMW well, is a co-author on a publication in a peer reviewed journal presenting the results of her mentorship last year, and she has been invited by her first semester biology professor to do research in her laboratory starting this semester."*

*Teresa Fenn*

Newsletter



### Tidewater Science Fair

Governor's School students competed at the 2012 Regional Tidewater Science Fair at Old Dominion University on March 10, 2012. Joey Hsu, Junior, won the First Award of Excellence, placed third overall, and received many other special awards.

Other **Category awards** were as follows:

Behavioral and Social Sciences  
2<sup>nd</sup>, Samantha Giaccio

Biochemistry  
3<sup>rd</sup>, Jacob Deibel

Energy & Transportation  
2<sup>nd</sup>, Jennifer Pandolf

Engineering: Materials & Bioengineering  
3<sup>rd</sup>, Zach Rosen/Simone Stewart/David Chasteen-Boyd

Engineering: Electrical & Mechanical  
1<sup>st</sup>, Joey Hsu

Medicine & Health Sciences  
3<sup>rd</sup>, Alison Trautman and Nile Booker

Microbiology  
1<sup>st</sup>, Ashley Pandolf; 3<sup>rd</sup>, Carli Perkins; Hon. Mention, Vivian Chan

Physics & Astronomy  
Hon. Mention, Conner Silveria

**Special awards** also were given to Bridget Cave, Caitlyn DeGrace, James Zhang, Philip Cragg, Michael Trepte, Graham Young, Jennifer Pandolf, Conner Silveria, and Ashley Pandolf.



### VCU High School Programming Contest



Three teams from the Governor's School participated in the 2012 VCU High School Programming Contest on March 9 at VCU. Governor's School teams placed #3, #5 and #10! 3<sup>rd</sup> Place winners included Zak Edwards, Connor Young, and Megan Kelly. 5<sup>th</sup> place winners included Dimitri Zamkov, Alex Flores, and John Herman and 10<sup>th</sup> place

winner included Bryce Davis, Will Schmidt, and Doug Oliver.

**This VCU High School Programming Contest is a challenging and fun opportunity for High School students to improve their Java programming skills. The contest encourages the development of creative problem solving and communication skills as students work with their teammates to generate solutions to programming problems.**

## Student Testimonial



### Great Computer Challenge

Three teams from the Governor's School competed in the Great Computer Challenge 2012 on March 17 at Old Dominion University. In the Scientific Programming category, Alex Flores, John Herman and Dimitri Zamkov won First Place with Zak Edwards and Megan Kelly winning Second Place! Bryce Davis, Doug Oliver and Will Schmidt won the Third Place in the Programming JAVA category.

*Not only does GSST prepare students for the rigorous academics at top tier, prestigious universities, it has prepared and enabled me to succeed at my respective military academy. The academics at Governor's School are equally as difficult (if not harder) than many of my initial science and math courses at the Academy. The Physics strand at GSST has not only taught me about math and physics, but it has also developed a problem solving skill set that can be applied to many other academic courses and to life in general. I would highly recommend the Governor's School to any student, regardless of what they want to do in the future. The Governor's School has really prepared me for my transition to the academic work load at the Naval Academy, and I attribute a lot of my academic success to the Governor's School. Additionally, the mentorship program has exposed me to an applicable realm of science that applies to everyday life. It has taught me about several science disciplines and helped develop presentation skills that are vital to today's growing workplace. The Governor's School program truly provides an invaluable service that prepares students for their future endeavors in college and ultimately contributes to their academic and personal development.*

*Christopher R. DiOrio*

### Instructor Highlight

Mr. Bruce Chittenden, GSST Scientific Programming instructor, was one of three instructors to receive the *Technology Hampton Roads STEM Educator of the Year* award given out at Tech Nite 2012. This award honors an individual who has demonstrated effective, engaging, and innovative Science, Technology, Engineering, and Mathematics (STEM) teaching in grades K-12.

### Hampton University Student Research Day Symposium

Governor's School for Science and Technology ties for 1<sup>st</sup> place and wins 2<sup>nd</sup> and 3<sup>rd</sup> place in the Hampton University Student Research Day Symposium in the poster competition. In total eleven students and three teachers from the Governor's School participated.



#### First Place - Cassandra Brown

A CORRELATION STUDY BETWEEN THE JET LOCATIONS, SUPER-MASSIVE BLACK HOLE MASSES, MASS ACCRETION RATES, AND JET POWERS OF 14 RADIO-LOUD AGNS.

#### Second Place - Aaron Weisenburger

LET'S GO PHISHING.

#### Third Place -

Conner Silveria, John Matthews, Darren Murray, and Jennifer Pandolf  
DIFFERENT SWIMSUITS: A NOTICEABLE DIFFERENCE?

### Junior Academy of Science Research Symposium

The following papers were submitted to the Virginia Junior Academy of Science to be presented in May:

- ◆ "Altering Roof Structures to Maximize Solar Power Efficiency" - Lauren Chambers, Ryan Chanza, Mihail Gonzalez, and Ashley Luchtenberg.
- ◆ "Different swimsuits, a noticeable difference?" - Conner Silveria, John Matthews, Darren Murray, and Jennifer Pandolf.
- ◆ "A Correlation Study between the Jet Locations, Mass Accretion Rates, and Jet Powers of 14 Low Power Radio-Loud AGNs" - Cassandra Brown

# Parent Testimonial

## WJCC Students are excelling at the Governor's School!

My son Alex Flores is a junior at JHS and at the New Horizon's Governor's School for Science and Technology. I first want to thank you all for offering such a great opportunity for students who are gifted in science and technology. I hope this is support that will be offered long after my son has graduated and is working in his field!

I can not express in words what the experience has been like for Alex. He is a rare student who knows exactly what he wants to do "when he grows up." He wants to be a computer programmer and was working to this end on his own prior to attending Gov School, as the kids call it. He loved it, but was frustrated by it at the same time, because teaching yourself a language (computer or otherwise) is much better accomplished with peers and a knowledgeable instructor. He was at the point in high school where he was feeling unmotivated, not because he wasn't in challenging courses taught by great teachers, but because he "wasn't getting anywhere [he] wanted to go." His acceptance into the NHGSST Programming Strand changed all that. He is now in an environment where he is learning from a highly talented, industry-experienced instructor and is surrounded by peers that also have a passion for programming and problem solving. To say it has been life changing is almost an under-statement. He doesn't even mind the very early wake-up time, and for any of you who may know my son who I jokingly say is "part owl," this alone is huge! And while I do sometimes have to remind him that he *is* taking other classes, he feels like he is on the path to his chosen future.

The second reason for my email is to tell you a bit about a couple achievements made in the past few weeks by Alex and a couple other WJCC juniors who attend Gov School. WJCC does such a great job at recognizing achievements that take place in our schools, so I wanted to make you aware of these. This month has held two contests involving programming and other computer technology skills. The first was the VCU High School Programming Contest on March 9th and the second was The Great Computer Challenge just held this past Saturday, March 17th.

I am including a descriptions and the links to the actual contest pages and attaching a picture of the team. Pictured left to right: Dmitry Zamkov (Junior – Warhill HS), John Herman (Junior – Jamestown HS), Alex Flores (Junior – Jamestown HS), Bruce Chittenden (Programming Instructor – New Horizons Governor's School for Science and Technology).

**The VCU High School Programming Contest** is a challenging and fun opportunity for High School students to improve their Java programming skills. The contest will encourage the development of creative problem solving and communication skills as students work with their teammates to generate solutions to programming problems. Teams will be given problems to solve using Java and will have three hours to implement solutions. Solutions will be judged for correctness and speed of solving.

<http://www.egr.vcu.edu/cs/about/community/high-school-programming-contest/index.html>

Alex, John Herman (JHS), and Dmitry Zamkov (WHS) were a team of three juniors who competed up at VCU as one of three teams from NHGSST. There were 10 highly challenging problems for them to solve, and 17 other teams competing against them, including three teams from Thomas Jefferson High School for Science and Technology\*. **A team from NHGSST made up of seniors came in third, bumping TJHSST out of one of their usual top three places. The team of Dmitry, John and Alex came in fifth!** This is an amazing achievement! We can't wait to see how these juniors do next year!

**The Great Computer Challenge**, a joint project of WHRO, C.I.I. and ODU, is a competitive opportunity for students in grades K-12 to demonstrate their skills in various computer applications and computer programming, including Graphic Arts, Desktop Publishing, Music Composition, Desktop Presentations, Web Design, Internet Scavenger Hunt, Integrated Applications, Scientific/Non-Business Programming, Visual Basic, CAD, JAVA, and Video Editing.

<http://www.whro.com/home/education/cii/professdevelop/studentactivities/greatcompchallenge/>

Dmitry, John and Alex were once again a team, and competed in the Scientific/Non-Business Programming category. They had three hours to write code in the programming language of their choice (other than Java) to solve five problems. These guys finished in 90 minutes and won first place! They wrote their code in F# which they are learning on their own with the encouragement of their instructor, Bruce Chittenden. Mr. Chittenden, who rather than forcing them to limit themselves to the three languages in the curriculum, allows them to push themselves and each other to see how much they can learn in any and all languages they are interested in (including the 3 on the syllabus)! What a great philosophy!

As a parent of a WJCC student, I am thrilled that we have such a great partnership with the Governor's School and am so pleased that the folks in the JHS (I can't speak for WHS, but am sure it goes for them also) Guidance Department are knowledgeable and helpful with regards to scheduling classes to meet prerequisites, and the half day schedule of classes during the students' junior and senior years. **The folks at the NHGSST do an amazing job to get to know our students, encourage their talent and help them excel in the classroom, in their senior year, mentor-ships in the community. These students are so fortunate to be in an encouraging learning environment where they are surrounded by like-minds, talents and passion.**

Thanks to you all for your time and the work you do towards educating our fantastic young people!

Ronda J. Williams

\*TJHSST is a 4-year Virginia state-chartered magnet school located within Fairfax County, Virginia. Which according to *U.S. News & World Report* was ranked the best public high school in the nation in 2007, 2008, 2009, 2010, and 2011.



520 Butler Farm Road, Hampton, VA 23666  
757-766-1100

[www.nhrec.org/governorsschool](http://www.nhrec.org/governorsschool)