



Linwood Holton Governor's School

Fall 2013 Newsletter

www.hgs.k12.va.us

Virginia's First Virtual Governor's School



Director's News

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The A. Linwood Holton Governor's School is off to another great year. This Fall it is our privilege to work with 190 students from the 17 school systems with whom we partner. It is also with pleasure that we welcome two students from our newest partner, Highland County, who are both enrolled in our Physics Class.

We are also very pleased to have successfully launched two new classes. *Creative Writing*, taught by Ms. Dominique Traverse Locke, is going very well and the excellent work being produced by her students is already very impressive.

Our *Environmental Science* course is taught by Ms. Julie Reimer and is also a big success. Her students are busy learning about both general principles and the unique Appalachian Environment of which we all are very intrigued and proud. Students in this fascinating class are shortly planning a field-trip to learn first-hand about the challenges of mining reclamation.

While the numbers are important and help tell the story of the success of our school, a much more compelling story is told by the students who have successfully used the opportunities we provide as a stepping stone to gain a head start for their college and working careers. These come from many of our alumni and emphasize a variety of different aspects of our program. One such story is found in this newsletter from Ms. Sarah Kegley, a former student from Abingdon High.

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reative Writing



A Dibble, A Dabble



In an ever changing literary world, I have been blown away by the skill and imagination of my Creative Writing students thus far into the Fall term. Their contributions to the craft leave me inspired and excited about an awakening of the arts right here in our area! Introverts and extraverts alike unite via cathartic expression and experience in this course in a safe and welcoming atmosphere. Have a story developing in your mind? An abiding image that you just can't shake? Here's your chance to get it out of your head and on to the page!

What the students are saying:

The Creative Writing course is very entertaining. It's not too serious, so you can actually have a good time and you don't dread coming to class. I've learned so much about how to be a better writer, and I hope to keep improving. I would definitely recommend this class to anyone who enjoys writing. It is so fun, but challenges you to do better.

-Hannah

Over the course of my experience with creative writing, my fellow student and I have been assigned a variety of writing projects such as short stories, creative nonfiction narratives, several types of poetry, response papers, and several others. Mrs. D has been not only a reliable resource for learning, but an interesting one as well, teaching thoroughly but in a manner that can hold students' interest. The gaps between seriousness are constantly filled with humor of some sort.

-TJ

Fiction – explore the power of provocative story, settings that aren't easily shaken, plot lines that weave together seamlessly, and dynamic characters that generate powerful emotional responses. Students are steadily churning out short stories that demonstrate a near mastery of developing distinct voices, original styles, and advanced narrative techniques that resonate with the reader.

Creative Nonfiction - deploy riveting description, dialogue, and narrative structure to tell the truth, the whole truth, and nothing but the truth. Students have already taken their creative nonfiction skills into field assignments (such as movie and music reviewing, and "people watching") to practice the career possibilities of the nonfiction writer. Doesn't working for Rolling Stone, Cosmopolitan, or Men's Health sound like an awesome future? Get started here!

Poetry - make the ordinary extraordinary by manipulating form, syntax, line integrity, language, grammar and mechanics, and let's be honest, what's more liberating than disregarding all those English formalities, and flushing them down, deep down the drain?! Students have written found poetry, song parodies (imagine "Call Me Maybe" remixed to the tune of the zombie apocalypse), and much, much more!



**There's still time to sign up
for the second semester class!**



Creative Writing Excerpts

“Yesterday”

by TJ Ramey

Sweat-drenched palms of quivery
hands roll without cease.
Warm. Cold. Warm. Cold again.

Beating hearts swing heavy hammers
as if to break out of a tunnel
where they might meet.

Exchanges of shaky, whispered words
wrap around like seasons.
Eye contact seems too much.

Yesterday, you were different.
Yesterday, you didn't have a tie.

from “The Walk to the Cemetery”

by Hannah Daniels

After walking a little while longer, the old man saw the faint outline of a the tall cemetery gate come into view. He approached it, stopped, and fished an old skeleton key out of his pocket. He was one of the very few remaining people who still had a key to open the gate. The grass was terribly overgrown, except for one path that was kept cut. He passed by many mossy tombstones adorned with flowers and dirty American flags, and tall crumbling statues of angels. Finally, he arrived at the place he had sought after.

It was the only neat place in the cemetery, having a clean, faded marble tombstone with a bench beside it. The old man took a seat, and gazed at the tombstone. There were no flowers, but one flag stood on top of the stone, waving gently in the breeze. “Happy Birthday, Brother,” the man whispered into the silence, bowing his head.

from “Ghosts in the Snow”

by Hannah Daniels

Water and broken glass covered the floor in front of her. Leah crouched down and was about to pick through the pieces. Before she could, however, large coils of blue smoke began to rise from the remains of the snow globes. She jumped back in surprise as the smoke formed into the images of six teenagers. There were two boys, and four girls. Their blue bodies wavered like holograms as they moved. One of the girls stepped forward, her mouth spread into a wide grin.

“You’ve freed us!”

The Body Farm

News from Karen Smith and the Anatomy & Physiology Classes



Fall 2013 has brought excitement as well as Classes. All students have had to memorize to speak the medical language this course study habits so they can comprehend the amount of information that is presented in Anatomy lectures. The students' hard work is paying off and the world can expect some promising medical professionals from Southwest Virginia soon. Their instructor is very pleased.

anxiety for the Governor School's Anatomy more than they ever have before in an effort requires. Most have redefined or refined their

In October I was thrilled to be invited by one of my former students, Natisha Sturgill Mabe, to accompany some of her students to the Body Farm at the University of Tennessee in Knoxville, Tennessee. Natisha was my Anatomy student in 2005 and now she is teaching Chemistry and Physics at Eastside High School in Wise County. I am very proud of her.

I have wanted to go to the Body Farm for several years because I have heard the founder, Dr. W. M. Bass, speak at national conferences I have attended. PhD. candidate Heli, Maijanen spoke to our group. She emphasized it is The Research Center for Forensic Anthropology. It was Dr. Bass' work as a forensic scientist and his desire to understand the process of body decomposition to determine how long a body had been dead that set the stage for the Research Center. A body donation program was started in the 1980's so that decomposition could be studied daily. Pictures are taken to determine the time frame of integument decomposition. Skeletal remains are examined for age, sex, stature, and ethnicity. Ms. Maijanen explained the many conditions skeletal remains can be exposed to that can impact the identification of a corpse. The Research Center participates in the training of law enforcement personnel and also helps medical examiners identify and determine cause of death.

I am happy to announce Ms. Heli Maijanen will be lecturing to Anatomy Classes on Friday November 15th. She will speak to the classes Virtually from the Research Center at UT and will be emphasizing more about the forensic anthropology research. Ms. Maijanen will show pictures of decomposition and will share about her decision to become a research scientist in this field.

On November 24th and 25th two Anatomy Classes will go to Blacksburg to tour and visit the Veterinary School of Medicine on the Virginia Tech campus. Several students are interested in veterinary medicine this year. We will also tour the Virginia College of Osteopathic Medicine. I have 3 former students who are now at this medical school. Scottie Hurley will be talking to the students about his experiences at VCOM. This will be very beneficial to my present students who are hoping to become physicians.



Heli, Maijanen

2013 is the 15th anniversary for Holton Governor's School. Our school has put Virtual Schools on the map. I never thought I would be teaching this way and I am so appreciative of my students, many of whom are medical professionals, educators, and are in other successful careers. I also am grateful for the high schools that have faithfully supported our school and have sent us outstanding students each year. The Virtual Classroom is the future of education and it has been an honor to have been a part of this school since its beginning.

Advanced Multimedia Applications

by Course Instructor, Alicia Johnson



As students work their way through the many aspects of multimedia creation, they are discovering that nothing important in life comes easy. With every convenience that technology offers, there is always a learning curve and technical difficulties to overcome. HGS students are learning the fine art of creative problem solving! (I was considering changing the course name!) We all know the “blue screen of death” that we remember seeing when Windows would take a dive into the frozen abyss and drag us along with it. Well, things aren’t much different these days, but this course is designed for students to not just learn the elements of multimedia creation, but also the skills of problem solving, collaboration and communication needed to get through each individual bump in the road on towards a finished product.

I asked some of last year’s students if they have used their multimedia during their first semester of college – here are some of the responses:

Michelle V.: “Definitely!”

Taylor B.: “Yes, I have used the skills learned in your class tons.”

Hannah L.: - “Being a Music major, I’ve used it for composing and recording. I haven’t so much yet, but I’m going to have to use the program Sibellius a lot in the future. I also have to do some sort of media production for my final in a religion class I’m taking. Hope you’re doing well!”

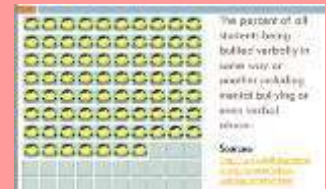
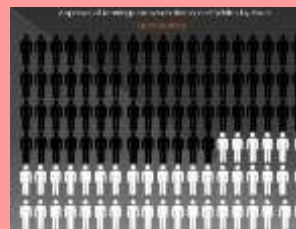


Garret M., attending Berea College in Kentucky is assisting students with multimedia projects for his student labor position!



Emily P.’s Metaphor on Bullying
(words do hurt.)

I know AMA is such a great course for students, especially those moving on to college. Using technology naturally encourages them to solve problems that arise through its use. The pre-planning, thinking things through and necessary multiple edits required in multimedia design are all skills that cross-over into every aspect of their lives. By constantly finding new and better



ways to communicate, our AMA students will have an advantage. These infographics created by (above right) Emily P.

and Darcie M. and (above left) MacKenna E. and Christopher P. are examples of finding better ways to communicate their research results into a graphic image for their audience to better understand the data and be able to move through it quickly.

As students work through their animation projects, they are learning the much needed skills of forward thinking and patience!



Student will wrap up the semester by putting all of the newly acquired multimedia skills together into a 60 second video to submit to Toyota’s Teen Driving Video Contest !! Good luck AMA students !!

Historical Bits & Pieces

Appalachian "MythBusters?"

ALHGS Appalachian History students will embark on new course component in the Spring 2014 semester: Appalachian MythBusters. The goal of this new course component will be to debunk local legends and to differentiate between fact and fiction. The genesis of this course component came from an Appalachian history fall tradition: the ghost story.

"Since the beginning of the ALHGS Appalachian History class, students have been asked, in late October, to write a ghost based local lore and/or their family tradition," ALHGS History Instructor Mark Hagy said, "the recent batch included a few dealing with local traditions of hauntings by murder victims." When the stories were being discussed in class, several students asked whether the crimes commemorated in these stories actually happened. "The students asked me," recalled Mr. Hagy, "and I had to shrug my shoulders and tell the class I had no idea. Then the discussion turned to ways of verifying these stories. Appalachian MythBusters is the result of those class discussions. When you think about it, there are so many local legends, stories passed down from grandparents, things we are told in school. But are they based on fact?"

The student enthusiasm led Mr. Hagy to implement the new course component, using the Spring 2014 Early Bird Appalachian History class as the test group. Students will be required to select a piece of local legend or folklore and then research it at their county courthouse, local historical society and other possible locations. If the new course component produces concrete examples of busted myths, these will be detailed by the students in a presentation that will be preserved for future use.

This assignment will get the students involved in hands-on research into local history, which is at the heart of the ALHGS Appalachian History course design. Please stay tuned for updates on the progress of ALHGS students.

Appalachian History Archive: An Update

Since the inception of the ALHGS Appalachian History Course, an online archive has been one of the chief goals. It has taken some time to collect sufficient examples from students to make a significant addition to the archive. Plans are underway to update the Archive by the end of the 2013-2014 academic year.

Western and World Civilization Semester Research Projects

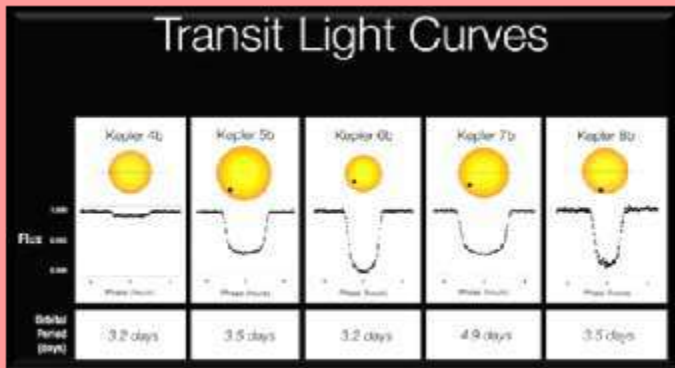
Primary Source documents are the essence of history; these documents provide first-hand information about historic events that contemporary students can use to study the past. Until the Fall 2013 semester, Western and World Civilization students at the ALHGS used primary source documents peripherally at best on homework assignments and essay tests. The Semester Research Project was added to these courses to rectify this situation.

Western and World Civilization students used the first six-weeks of the term to research and select a topic. The second six-weeks was used to research their approved topics with the third six-weeks being reserved for the writing of a 6-8 page research paper. The sources used on this assignment are to rely heavily on primary sources. Rather than merely listing primary sources, students are to produce a thesis-driven analytical essay. Topics selected this semester include: the historical significance of Alexander the Great, the impact of the Black Death on Eurasian trade, and the collapse of the Roman Republic.

Over time, the goal is to make the Western and World Civilization courses as research-oriented as the Appalachian History class. While there will necessarily be some differences between the Western and World Research Projects and the Appalachian History Projects, the goal will be the same: providing challenging educational opportunities for the gifted and talented students of far Southwest Virginia.

STUDENTS ZOOM IN ON THE ZOONIVERSE

Zooniverse is a citizen science program involving students and others in many interesting investigations. Dr. Rapp's astronomy students are zooming right along in their various research areas. Some students are working on a project called Planet Four and are using HiRISE data from the Mars Reconnaissance Orbiter. They are studying wind patterns (as shown right) on the Martian surface.



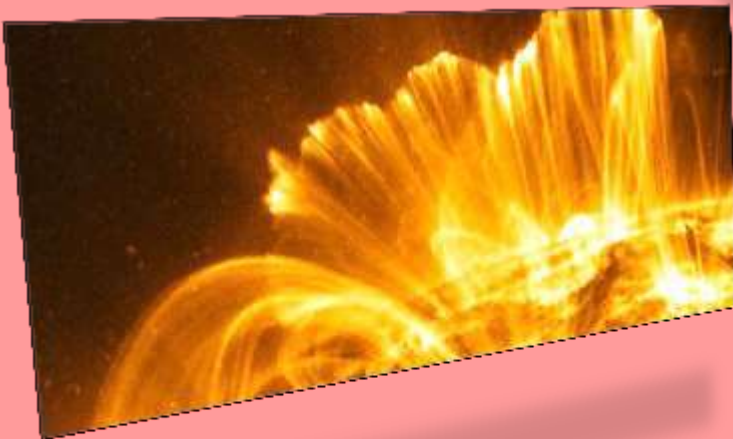
Another team of students have become planet hunters using light curve changes from the Kepler spacecraft to find transiting planets. As an exoplanet passes in front of the sun in that system,

light from the sun is dimmed as seen below.

The Moon Zoo project involves counting craters on the moon and classifying them into groups to get a better understanding of the impact of meteorites on the surface. The students in this group are using data from NASA's Lunar Reconnaissance Orbiter. They are studying the lunar surface in unprecedented detail. See the photo to your right.



The Solar Storm Watch team members are using interactive diagrams and the STEREO spacecraft to study how solar storms change conditions in space and on Earth. An image of solar prominences and flares is illustrated below.



These students are becoming citizen scientists. They are discovering the wonders of the universe in exactly the same way an astronomer does. They understand what it is like to be a scientist.

2013 MOUSETRAP 400 RACE

ANNOUNCING THE WINNERS

The student that had the racecar that reached the finish line in the shortest amount of time was awarded First place. Nathan from Lee High School had the fastest elapsed time of 2.8 seconds. Second place went to Vraj from Lee High School, with an elapsed time of 2.8 seconds. Third place was awarded to Justin, also from Lee High School, with an elapsed time of 4.5 seconds. All the winners received certificates and a robotics kit.



First Place Winner: Nathan



Second Place Winner: Vraj



Third Place Winner: Justin



COW POWER!

ENVIRONMENTAL SCIENCE AND RELATED PROBLEMS

Have you heard about cow-power? If not, just ask an Environmental Science student! We have had a wonderful semester discussing many topics including conservation, point and non-point source pollution, climate change, conventional and sustainable energy, and eco-heroes that have steered the direction of environmental science. The focus of this course is looking at innovative, biological solutions to current environmental issues. Students have discovered the complex biological systems that nature uses “behind the scenes” to keep Earth functioning. Keeping these natural systems in mind, we have explored how the rapidly growing human population impacts Earth. While discussing humans’ impact on the environment, we have contemplated how environmental choices are intertwined with economic decisions. So what is cow-power? It turns out that enterprising dairy farmers can collect methane gas from cow manure and use it to power generators, households, and even public transit systems. This topic is just one of the many interesting innovations we have learned about. In this course, students reflect on new information with comments like “Wow!” “I had no idea,” and “I never knew about that....” This course is guaranteed to teach students new information that will change the way they look at lifestyles, nature, and the global economy. It may even impact our students’ future career choices since there are so many interesting jobs in the field of Environmental Science.



We asked the students to reflect on their favorite parts of the course, and here are some of their insights:



Mark-Recapture Virtual Lab

“I have fished ever since I could remember and I can tell that there is starting to be an impact on the fish because of all the pollutants that are being released in the water and hurting the habitat of these aquatic species. The most interesting thing so far in this course would have to be learning all the causes and impacts of climate to change and how we can improve our ways of living to reduce the pollution and make our environment a better place to live. It helps me to know things that I need to work on like conserving more water because the Earth’s fresh water supplies are becoming limited. In the future, they could become scarce if the world population does not make a change and try to control their water usage.”

“My favorite assignments are always the thought papers. I like being able to state my opinion on a subject and I love the informal format that we get to use because I don’t stress out about it being perfect, but they still take some time to sit and think about. My favorite thought paper was one of the very first ones about the fireflies because I got to talk about my personal experiences.”

“In the beginning, I did not like the online format at all because it was so different, but now it is fun. It is something new and pretty cool because I learn better listening to the information and viewing the lecture slides. With this format, it enables the teacher to talk to us and is easier for us to communicate unlike the other online classes where the teacher is not able to interact with the students.”

“I enjoyed the capture-mark-recapture lab. It was amazing to me how closely the equation estimated my total population. This lab has been my favorite assignment so far because it illustrated the mark-recapture process and math perfectly.”

We are preparing for a trip to the Powell River Project in Wise to look at several different research projects related to coal surface mine reclamation. While at the site, students will have the opportunity to practice some of the environmental field testing methods we have learned in class. During the course, students also use items from the lab kits stationed at their schools for hands-on lab projects. This new course has been a great adventure for the students and Mrs. Reimer.

If you would like more information about the **Environmental Science and Related Problems** course, please email Mrs. Julie Reimer at jreimer@hgs.k12.va.us.



Student Lab Kits

STUDENT REFLECTIONS



My name is Sarah Kegley, and I am a former student of *A. Linwood Holton Governor's School*. I took several classes through the Governor's school throughout my high school career including: Western Civilization I & II, Principles of Physics I & II, and Human Anatomy and Physiology I & II. I enjoyed every class I had the opportunity to take and enjoyed the opportunity to be in class with other students from all around Southwest Virginia in this unique learning experience. The courses I took through the Governor's school gave me an advantage over my peers when I went away to college. They gave me experience with advanced, college-level class work and college credit which I was able to use towards earning my college degrees.

My favorite aspect of the courses taught through the Governor's school were the field trips associated with each course. I am a real hands-on, visual learner, and getting the opportunity to work with the radio

telescopes in West Virginia during the Principles of Physics field trip or working in the cadaver lab at Eastern Virginia Medical School during the Human Anatomy and Physiology field trip enhanced my learning experience. The trip to Norfolk, VA, to work in the cadaver lab really solidified my desire to enter the medical field. Being able to hold a heart, a lung, and a brain in my hands for the first time sparked my interest in medicine.

After high school graduation, I enrolled at Virginia Tech and progressed towards a Bachelor of Science degree in biology. With my credits from A. Linwood Holton Governor's School and other dual-enrollment credits from high school, I was on track to graduate a year early from Tech. After shadowing and talking with many medical professionals, I decided to stay my full four years at Virginia Tech. I ended up adding a second degree in Human Nutrition, Foods, and Exercise (HNFE) for which I was able to use many courses from my biology degree to complete the requirements. I just recently graduated from Virginia Tech this past May with two Bachelor of Science degrees and started nursing school at Lynchburg College two days later. I love nursing school and love being involved in the medical field. I hope to eventually go on to get my Doctorate of Nursing Practice to become a nurse practitioner. I would really like to work in pediatric primary care or possibly in a specialty office such as ear, nose, and throat or orthopedics. I often think back to that Human Anatomy and Physiology field trip and am grateful that I had that opportunity because it set me on the path towards a wonderful career in medicine.

The courses I took through the Governor's school gave me an advantage over my peers when I went away to college. They gave me experience with advanced, college-level class work and college credit which I was able to use towards earning my college degrees.

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**To Our Supporters,
We truly thank you!**

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Abingdon High
 Bland High
 Carroll County High
 Castlewood High
 Central High
 Chilhowie High
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 Council High
 Eastside High
 Fort Chiswell High
 Galax City High
 Gate City High

George Wythe High
 Graham High
 Grayson County High
 Grundy High
 Haysi High
 Highland High
 Holston High
 Honaker High
 Hurley High
 J.I. Burton High
 John Battle High
 Lebanon High
 Lee High
 Marion Senior High

Northwood High
 Patrick Henry High
 Richlands High
 Rocky Gap High
 Rural Retreat High
 Rye Cove High
 Tazewell High
 Thomas Walker High
 Twin Springs High
 Twin Valley High
 Union High
 Virginia High

Participating Schools

**MOUNTAIN EMPIRE COMMUNITY COLLEGE
 SOUTHWEST VIRGINIA COMMUNITY COLLEGE
 VIRGINIA HIGHLANDS COMMUNITY COLLEGE
 WYTHEVILLE COMMUNITY COLLEGE**

Participating Colleges



OUR MISSION

OUR MISSION
OUR MISSION

Is to provide **challenging learning opportunities** for the gifted & talented students of far Southwest Virginia that are not available to them in their regular school program.

We will accomplish this by **strengthening their abilities** and **nurturing their social and emotional well-being**—through **mentoring, rigorous academic courses, service to the community, and leadership training** within an *entrepreneurial culture that encourages creativity, initiative, and problem solving.*

Facebook



Check us out!

Find us on  to discover more about upcoming events!
Or, simply use it as another avenue to just “keep in touch.”
We’re there and waiting...and remember...
we are already one of *your* biggest fans!