

VOLUME 1, ISSUE 1

NOVEMBER 2012

EHS2P

"DESIGNED WITH OUR FUTURES IN MIND"

293 WARRENTON ROAD - SUITE G

HENDERSON, NORTH CAROLINA

## EARLY HIGH SCHOOL STEM PROGRAM (SCIENCE, TECHNOLOGY, ENGINEERING, MATHEMATICS)

### VANCE COUNTY SIXTH GRADERS ENROLL IN STEM PROGRAM

In the Spring of 2012, fifth graders and their parents at elementary schools in Vance County were introduced to the STEM (Science, Technology, Engineering, Mathematics) concept. Students sought for enrollment in the Early High School STEM Program were expected to be mature and independent, be able to accept challenges found in a progressive program, and have the potential to successfully complete engineering challenges with global significance.

Approximately, one hundred students were accepted into the program and began their first year in STEM on the campus of Northern Vance High School located at 293 Warrenton Road, Suite G, Henderson, NC. On August 20, an open house was held to introduce parents and students to the site.

Students are taught Common Core Standards in English language arts and mathematics as well as NC Essential Standards in science and social studies. The program's curriculum includes science-based inquiry and experiments, project-based instruction, and connections to the Grand Challenges of Engineering. The following persons were assigned as coordinator and teachers: Dr. Priscilla Chavis-Lockley, coordinator; Mrs. Lynn Conley, mathematics; Mr. Stephen Jones, science; Mrs. Brenda Lloyd, English language arts; and Mr. Scott Fortune, social studies. Mrs. Sylvia Lowery is serving as a substitute teacher.

Mr. Ronald Gregory, Superintendent, Vance County Schools, Dr. Trixie Brooks, Assistant Superintendent for curriculum and instruction, and Ms. Dana Bowden, mathematics/science curriculum specialist, were instrumental in planning and coordinating various aspects of the Early High School STEM Program.



### FROM THE DESK OF THE VANCE COUNTY SCHOOLS' SUPERINTENDENT...

Our Early High School STEM Program has completed the first nine-weeks of the first semester. This has been a transition for approximately one hundred of our sixth grade students. They have been exposed to a new way of teaching, thinking and learning – "project based learning and reporting."

I would like to give a very special "thank you" to our parents for supporting our students as they explore engineering projects, challenges and problem solving on a different level.

We know that our students' futures depend on how we educate them today, thus EHS<sup>2</sup>P is "designed with their futures in mind."

We are excited about our STEM initiative in our School System. We know that this initiative will ensure our students' readiness to be globally competitive for the 21<sup>st</sup> Century job market as well as for postsecondary education.

The mission of the STEM Program is to provide a small, personalized learning community that prepares students with high interest in Science, Technology, Engineering and Mathematics for global success through a challenging purposeful program of study based on relevance and rigor and delivered in a climate of mutual trust and respect.

Parents, students and teachers are all encouraged to continue this momentum of success throughout the school year. We have no doubt that we will achieve the vision and mission of EHS<sup>2</sup>P.

Ronald E. Gregory  
Superintendent  
Vance County Schools

## STEM STUDENTS SHARE THEIR FEELINGS ABOUT PROGRAM

**Jordan Hawkins wrote:**

"I like the STEM school program because it's a bigger and better challenge from the base schools. Also, we are treated with respect and we are like the high schoolers. The STEM school is also wonderful because we are in a high school environment and that will give us the experience of being in high school."

**Janieya Allen said:**

"I like being in STEM because it is going to help you get into college. Another reason I like

being in STEM is because you get to do challenging stuff."

**Patrick Kearney wrote:**

"I like that we get to use laptop computers for work. We have learned about world history and also about science molecules."

**Shiquale Jefferson stated:**

"The STEM school program gives us more work to do by ourselves. Teachers

don't stand by our sides and tell us what to do. They just give us the work and 30 minutes to do it. That's what I like!"



## ON-CAMPUS HAPPENINGS . . .

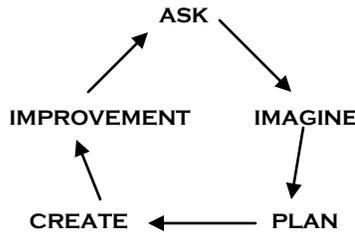
### STUDENTS SELECT HOMEROOM

**NAMES**

Students in each homeroom were given the opportunity to suggest a name for their homeroom. The coordinator and teachers reviewed suggestions and selected the following names for each classroom:

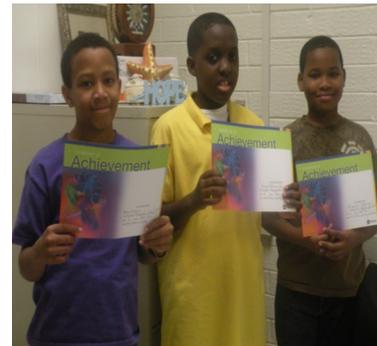
- Ms. Conlee—*Brainstormers*—Zachary Williams
- Mr. Fortune—*Steamers for Engineering*—Shiquale Jefferson
- Mr. Jones—*STEM-a-neers*—Marquise Hargrove
- Mrs. Lloyd—*The Designers*—Shamya Peace

### THE ENGINEERING PROCESS



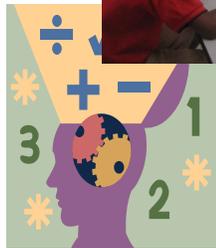
### THE MARSHMALLOW CHALLENGE

Using the Engineering Process, students participated in the "Marshmallow Challenge" using 20 pieces of spaghetti, 1 yard of string, and 1 yard of tape, and one marshmallow to build a free-standing tower that met design specifications. Team winners were: Corey Williams, Jr., Jordan Hawkins and Shiquale Jefferson. They were able to satisfactorily explain the process they used for their model and why it worked. The winners discovered that their winning model was a better structure when they recreated it after additional attention was given to the Engineering Process model.



1st Place Team for "The Marshmallow Challenge" Contest

Jordan Hawkins, Corey Williams, Jr. and Shiquale Jefferson



Kaci Roberson displays her math board game, "Mansion Race" that she created and developed using the engineering process. Her board game focuses on the usage of integers. Two to six people can play this game.



Cameron Medlin, left, Henry Huynh, center, and Matthew Seward work on their "Paper Table" project in math class. Their focus is on the Grand Challenges of Engineering.

## IBM SUPPORTS THE STEM PROGRAM

Mr. Andre Peek, Vice-President Communications Sector Global Technology Services IBM and Mrs. Angela Chappell, Global Administration Assistant, International Business Machines (IBM) Corporation, attended the community open house in the Fall. Mr. Peek shared his company's support of the Vance County Early High School STEM Program. Mr. Andre Peek, an IBM engineer and Mrs. Chappell have long been supporters of initiatives that benefitted Vance County Schools students.

Joining in this collaboration is Mr. Donald McCoy, a retired IBM engineer, who now serves as a K-to-College STEM Education Consultant. Mr. McCoy, a graduate of Old Dominion University, has a degree in electrical engineering technology. At IBM, his career responsibilities included project and people management, processes and programs for a wide range of products and services. His corporate headquarters' assignments included K-to-College STEM initiatives and outreach programs designed to attract, develop, and retain underrepresented talent in the workplace. As a consultant, he serves on the US Department of Education's, Office of Vocational and Adult Education "Designing Instruction for Career Pathways" Project, National Science Foundation, *Advanced Technology Education,* and teaching and consulting at North Carolina Agricultural and Technical State University, as well as with the 'Math Science Education Network' program and schools across the state of North Carolina.

Mr. Donald McCoy will make a special presentation to STEM students in their classes and to parents and students at Open House on November 29, 2012. Student-led conferences will be another highlight of the evening. Parents are encouraged to attend and learn more about the STEM program and their children's academic growth and achievement.



### FROM THE COORDINATOR'S DESK...

Dear Stakeholders:

It is an honor to be a part of the launching of an initiative that will have long-range benefits for students who attend Vance County Schools. The Early High School STEM Program (EHS2P) puts into place the beginning of an educational process that not only prepares students for high school, but extends to college/university and beyond. For many, this program will set the stage for careers in science, technology, engineering and mathematics. Just think, decisions are now being made by sixth graders as to what they may wish to do with their adult lives. Thank you for helping Vance County Schools' students look forward to their futures.

The faculty and I will do everything possible to assist these young people in setting realistic goals. We will provide them support, as well as an education that is relevant and rigorous. Parents, we ask that you join us on the home front and insist that your children follow through on class work and homework, and encourage them and talk with them about their daily activities.

Thank you for your support. Should you have concerns, do not hesitate to contact me. I can be reached at (252) 738-2260.

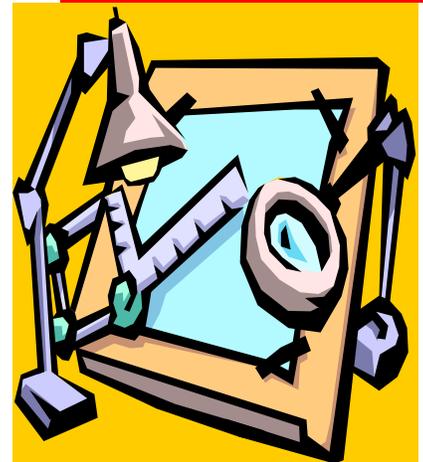
Sincerely,

*Dr. Priscilla Chavis-Lockley*

Mr. Donald McCoy

Retired IBM Engineer

K-to-College STEM Education  
Consultant



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