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### **Participating Schools:**

#### **HOUSTON COUNTY SCHOOLS:**

- **FEAGIN MILL MIDDLE**
- **HUNTINGTON MIDDLE**
- PERRY MIDDLE
- **MOSSY CREEK MIDDLE**
- NORTHSIDE MIDDLE
- THOMSON MIDDLE

### PEACH COUNTY SCHOOLS: FORT VALLEY MIDDLE

**BIBB COUNTY SCHOOLS:** 

MILLER MIDDLE

SACRED HEART CATHOLIC SCHOOLS SACRED HEART MIDDLE



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**NOVEMBER 2014** 

**STARBASE 2.0: FALL SESSION:** 



OLUME 1, ISSUE 2

STARBASE 2.0 2014-2015 Fall session is off to a successful start. From learning about character, responsibility, power,

skills, talents, goals, and motivations through "Eight to Great" and "Roads to Success" to Instant challenges such as: The Marshmallow Challenge, Dish Duty, Headlines, and What's for Dinner. We have noticed great gains and more excitement in the students that we serve. Students have the opportunity to engage in and learn about robotics weekly; while enhancing their learning cross curricula with the NXT and EV3 LEGO Mindstorms. To top it off, STARBASE Robins has purchased six EV3 LEGO Mindstorms for each school. Now that competition is under way, the students are even more excited and eager to learn





the hard work and dedication of our Principals, students, teachers, and our 32 mentors (students volunteers from Fort Valley State University

and Mercer University, and professionals from Robins Air Force Base and MERC) who volunteer weekly to help with our afterschool program.

### Benita Blackwell







# STARBASE 2.0 welcomes two new schools

Perry Middle and Sacred Heart Middle are two schools being added to the roster for schools served here in the Middle Georgia area. Both schools are excited about the new venture and a welcoming addition to our STEM

program The students are all working hard to prepare their teams for the First Lego League Robotics competition in Dublin. GA.







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## **STARBASE 2.0 STUDENT SPOTLIGHT**

Wendy Castillo is a 7<sup>th</sup> grade student at Huntington Middle School. She enjoys building things and drawing. Her favorite subject is social studies because the history about the assisted teachers by rede-

USA and the world intrigues her. Wendy is an A/B student and has been a model student for her peers in class. Due to Wendy being a bilingual speaker, she has

livering information in Spanish, e.g. directions and guidance for class assignments, with Spanish speaking students. The HMS Starbase 2.0 is lucky to have such an awesome Hawk!

## **STARBASE 2.0 TEACHER MENTOR SPOTLIGHT-Ms. Jessica Green**

Ms. Green is an 8 year veteran educator at Thomson Middle School where she teachers Engineering & Technology Education I have always had amazing teachers over the years. In high school, I realized that I wanted to be to other's children what teachers had been to me... a positive influence and a life changer.

I began taking education classes my senior year of college at Savannah State University. A month after graduating with my bachelor's degree, I began my master's degree in Technology in Education from Lesley University. I began teaching Engineering and Technology Education 6 months after obtaining my master's in education, and have been happily learning and teaching STEM infused lessons since.

Becoming a mentor assists me in fulfilling my life's purpose... to be a positive influence and a life changer for the students that I serve daily. With a concentration in application development, my bachelor's degree gave me a strong background in programming and coding. Then a few

years ago, Dr. Wall, HCBOE's CTAE director, purchased NXT Lego Mindstorm Kits for all Engineering & Technology Education teachers in Houston County for us to enhance our 7<sup>th</sup> grade curriculum. Therefore, I was already using and teaching a lot of the concepts that would be re-enforced through Starbase. Therefore, I had the basic knowledge, as well as the enthusiastic and caring nature needed to be a mentor.It is public education's role to prepare students for their futures (as they will be future employees in the workforce, as well as productive citizens in our society). When students are successful, everyone wins... parents, the school system, the community, the workforce, the government, our country.

Everything that we engage in from day to day deals with the four disciplines of science, technology, engineering, and mathematics. Furthermore, we live in an engineered world... Almost everything that we use has been designed and developed by an engineer from the cars that we drive to the Smartphones that we use to the shoes on our feet. Our world is also powered by technology from the foods that we eat to the medical equipment that we use to save lives.

STEM education promotes the 21st century learner by focusing on creativity, communication, cooperation, and critical thinking... It also develops social and interpersonal, problem solving, and employability skills. Overall, STEM education meets the demand of the workforce. Because of this, STEM education is extremely important and necessary in developing today's youth.

Ms. Green's principal, Dr. Walter Stephens added, "Ms. Green is an outstanding teacher! We are honored to have such an innovative, hardworking person like her at Thomson Middle. "



Ms. Jessica Green **Thomson Middle School** 

# STUDENT MENTOR SPOTLIGHT-Mr. Richard Stewart

I am currently retired from the United States Army. Currently I am a student at Mercer University. My Major is Education (Social Studies, Language Arts and Mathematics) The reason I choose to go into education, is because I believe that there are students who need more teachers, mentors and coaches who are willing to be models who demand excellence in academics. Teachers who are advocates for their holistic development. I became a mentor to assist students and adolescents in finding their voice. To ensure that students know they're relevant, productive, and substantive. I saw a need for positive role models, who were

willing to invest the time, energy and effort needed to help shape the leaders of tomorrow. I think that as a Christian, a father, and a human being, that it is an honor and a privilege to be apart of the developmental process. I grew up in the inner city of New York, so if there were clubs like this I would have tried to be a part of it. It would have created an avenue for me to possibly discover what I wanted to doScience is the "S' in STEM (Science, Technology, Engineering and Mathematics) education. I can define STEM education as the preparation of students in competencies and skills in the four disciplines (science, technology, engineering, and math). A successful STEM education provides students with science, math, and engineering/technology in sequences that build upon each other and can be used with real-world applications.

with my career at an earlier age. STEM education creates critical thinkers, increases science literacy, and enables the next generation of innovators. Innovation leads to new products and processes, which sustain our economy. This innovation and science literacy depends on a solid knowledge base in the STEM areas.



# **PROFESSIONAL MENTOR SPOTLIGHT-Mr. Charles Goolsby**

Mr. Goolsby is an engineer at Robins Air Force Base where he has been employed for the past 4.5 years. He had this to say about the S.T.E.M program. I was always interested in the S.T.E.M. programs, and throughout school Math and Science were my strongest classes. During my senior year in high school, I found an engineering program that I could attend. After getting into the program and taking the classes it was confirmed that engineering was the career field for me. I wanted to start giving back to the young minds of today which will be the future workers of the world tomorrow. I wanted to be able to bestow some of my knowledge and lessons learned to them, in hopes of opening up their minds to different possibilities. The other aspect of me being a mentor is that I wanted to learn from the youth of today, to see what they are doing and understand how they view life. A lot can be learned from kids and I wanted to see the different ideas and possibilities they could open my mind to. Yes, I would have been excited to be in a club like this if it were in my middle

school. STARBASE 2.0 allows the students to learn skills that can expand far beyond the walls of the club. Through the research it teaches students how to take a topic and understand the ideas and information around it. The building helps to shape creativity and forces the students to think out of the box to design something that will do a certain task. The programming allows the students to learn how to turn a static structure into a moving machine that operates only in a manner that it is instructed. The instant challenges permit the students to experience working under pressure, encourage quick mental skills and also give them a chance to improve their design and make a better model. The books take a deeper look at what the future can hold and how the decision that the students make now can have an impact 5, 10 or even 20 years down the road. These are all skills and lessons that I would have enjoyed learning about and going through as a middle school student. With the way that the world is going, technology heavy and everything electronic, S.T.E.M. programs are very important to today's youth. What is seldom said is that S.T.E.M. goes far beyond engineering and circuit boards. It todays

age scientist, doctors, sports trainers, mechanics, teachers, radio personalities, computer scientist, technicians, Information Technology (IT) professionals, musicians, musical artists and even many of today's managers, supervisors and CEOs are constantly dealing with S.T.E.M. related activities and functions. S.T.E.M. can take you almost anywhere you would like to go and S.T.E.M. programs allow today's youth to get a jump start on getting there.

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### Leaders in STEM Education

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- **S** CIENCE
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### **Our Mision**

STARBASE Mentoring combines STEM (Science, Technology, Engineering, and Mathematics) activities with a relationship-rich, school-based environment to provide the missing link for at-risk youth making the transition from elementary to middle school. It extends the positive impact of STARBASE through a team mentoring approach which solidifies students' attachment to school and engagement in STEM.

## **FROM THE DIRECTOR'S DESK:**



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I think we have had an amazing start to the STARBASE 2.0 Afterschool STEM Mentoring Clubs. I would say that things are beginning to settle down, however, all nine clubs are gearing up, programming up, building up for the FIRST Lego League season. All the STARBASE 2.0 Clubs will be participating in the Dublin, GA FIRST Lego League Regional Tournament in December. Thanks to our teacher sponsors and mentors for keeping the students motivated and moving in the right direction. There is still a lot of work to be done with very little time. With all our help, we will make this a fun learning event for the STARBASE 2.0 Club students.

The semester is going by fast. The STARBASE ROBINS staff is not only working hard to keep everything on schedule this semester, but we are in the process of planning and preparing curriculum, lessons, workshops and mentor training for next semester STARBASE 2.0 Club members as well as preparing for the Middle Georgia Annual FIRST Lego League Super Regional Robotics Tournament, which we host here at the Museum of Aviation. Thanks to all for being patient with us as we go through this transition period with new staff. We are still recruiting for mentors and also tournament volunteers. Please contact LaTondra Oliver at latondra@starbaserobins.org, if you know someone who would like to become a STARBASE 2.0 mentor of if you would like to volunteer for the tournament.

Thank all of you for continuing to make STARBASE 2.0 Afterschool STEM Mentoring Club a success. Our success and what we are attempting to do with our students is being known internationally. As I write this, I am traveling to Doha, Qatar for the International Engineering Leaders Conference on Engineering Education to deliver a presentation on a paper entitled "Afterschool STEM Mentoring Programs Helping to Develop K-12 Students for the STEM Workforce", which showcases our STARBASE 2.0 Clubs.

We hope you enjoy this newsletter issue. Please make sure to check out the Spotlight section. We wish you all a Happy Thanksgiving.

WESLEY FONDAL JR.



We would like to say thank you to all of our hard working teachers and mentors for preparing our teams for the upcoming First Lego League competition. Every Fall, FLL releases a Challenge; which is based on a real-world scientific topic. This year the challenge is entitled "World Class: Unleash the Learning." The First Lego League Challenged is a collaboration of three parts: the Robot Game, the Project and the FLL Core Values. All teams are made up of 10 students and one adult. The goal for each team is to build and program an autonomous robot, the EV3, to score as many points as possible by completing a series of tasks determined by the FLL Staff. The teams also have to come up with a real world problem based on learning, research it, solve the problem and share their solution before and during the FLL competition. However, our ultimate goal is for all students to have fun and become more involved in S.T.E.M. related activities. STARBASE 2.0 is proud

to sponsor 1 team from each of our 9 schools to compete in this year's competition on December 13, 2014 in Dublin, GA. For more information on First Lego League please visit: <u>www.gafll.org</u>.

