

**BITHGROUP Technologies Summer Science Technology Engineering Math(STEM)
Program Update 2009**



BITHGROUP TECHNOLOGIES

presents

**Science, Technology, Engineering
and Math Enrichment Program
for Cherry Hill Community**

sponsored by:

BITHGROUP Technologies, Inc.
Entretech Learning Systems, LLC
The City of Baltimore
BITHAuto, LLC

New Era Academy
Atholton Adventist Academy

South Side Academy

Oakland Mills High School
Cristo Rey Jesuit High School

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Executive Commitment



BITHGROUP Technologies, Inc. recognizes that when companies leverage their two most essential assets — knowledge workers and technology – the opportunity to achieve sustained competitive advantage increases. BITHGROUP Technologies provides a wide-spectrum of services to help businesses of every type and size to maximize that potential. By providing the youth of tomorrow with the opportunity to learn about technology and entrepreneurship BITHGROUP Technologies is preparing the workforce of the future. With our BITHGROUP Technologies Science Technology Engineering and Mathematics (STEM) Summer Program we are immersing bright young people into learning about technology and entrepreneurship and exposing them to new possibilities, we challenge them to explore areas that they have never considered. Preparing students for careers in STEM areas will be of benefit not only to the students but also to the company, the community and help secure the prosperity of our country.

Dr. Robert L. Wallace
Chief Executive Officer, BITHGROUP Technologies

BITHGROUP Technologies STEM Program Description and Purpose

To help develop tomorrow’s technical and business leaders, BITHGROUP Technologies, headquartered in downtown Baltimore City, initiated the STEM program in June of 2008. Four Baltimore City and Howard County students whose goal is to pursue a college degree in science or business participate in our STEM program each summer. During the summer of 2008 four students participated and this summer in 2009 four additional students participated in the BITHGROUP Technologies STEM program.

BITHGROUP Technologies STEM Program Overview

The BITHGROUP Technologies STEM interns participate in an intensive summer training program for five weeks. The program focuses on Career Development, Professional Development, Entrepreneurship, Technology Awareness, Community Service and Cultural Enrichment. The students also work on real world projects, visit world class museums and participate in technological experiments and demonstrations.

BITHGROUP Technologies STEM Program Eligibility and Selection

African American High School Males who have completed their first or second year of high school. The students must have a strong academic record and show interest in pursuing a career in science or business. They students must have demonstrated leadership capabilities and also have the ability to work effectively in teams. Students who are attending High School in Baltimore City or Howard County are given first preference, but students from other public school districts in the greater Baltimore Area will be considered.

BITHGROUP Technologies STEM Major Milestones 2008/2009

Highlights from the STEM Program listed in the chart below.

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	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A
Program Planning	■										■					
Interview/Selection												■				
Raising Awareness					■	■	■	■	■	■						
Orientation													■			
Summer STEM Program		■	■	■										■	■	■
Final Presentation				■												■

BITHGROUP Technologies STEM Participants

Devon Carter, Damon Daniels, Jerell Jones, James Pollard (2008)
Devon Carter, Derek Altema, Chris Lyons, Arthur Williams (2009)

BITHGROUP Technologies STEM Employee Participants

Kim Campbell, Corey Culbreath, Jerome Sanders, Carolyn Green, Dr. Robert Wallace, Warren Woo, Robert Green, Robert Daniel Wallace

BITHGROUP Technologies STEM Planning Team

Carolyn Green, Kim Campbell, Harry Holt and Dr. Robert Wallace

BITHGROUP STEM PROGRAM SUMMER 2009 Project Descriptions

Arthur Williams



Arthur Williams, Junior
Cristo Rey Jesuit High School

Alternative Energy Research:

- Wind Power is converted into natural energy by using the kinetic energy that is generated from the wind turbines
- Wind produces about 1.5% of the United States electricity
- Teas Horse Hollow is the largest Wind Farm in the United States
- The use of Wind Power is on a steady rise

Business Plan: The People Agent

- Investigate missing people
- Provide bodyguard services
- Install security systems
- Guard private possessions

Learning Highlights:

- Learned about Voice Over Internet Protocol
- Learned about Technical Assistance, IT Security Protection and IP Telephony
- Learned about Wind Power

Goals for 2009/10 School Year:

- Stay in contact with BITHGROUP Technologies
- Take the SAT in the fall of 2009
- Research and apply to summer programs for next summer
- Maintain 3.5 GPA and work towards a 3.75 GPA



BITHGROUP STEM PROGRAM SUMMER 2009 Project Descriptions

Devon Carter



Devon Carter, Junior
Oakland Mills High School

Alternative Energy Research:

- Solar energy is energy from the sun converted into thermal or electrical energy
- Solar Energy is an Inexhaustible fuel source
- Used to power a diverse set of products such as radios, clocks, cars, satellites
- No pollution

Business Plan: Terra Automotive

- Help protect the environment while performing our daily routine of transportation
- Provide alternative fuel vehicles for a price that the average family can afford
- Develop cars that use little to no gasoline
- Expand the number of alternative fuel vehicles that you see on the road

Learning Highlights:

- Learned about hydrogen fuel cell cars
- Learned about Global Systems for Mobile Communications
- Learned about Solar Energy

Goals for 2009/10 School Year:

- Stay in contact with BITHGROUP Technologies
- Take the SAT in the fall of 2009
- Research and apply to summer programs for next summer
- Raise my GPA to a 3.0



BITHGROUP STEM PROGRAM SUMMER 2009 Project Descriptions

Chris Lyons



Christopher Lyons, Sophomore
Atholton Adventist Academy

Alternative Energy Research:

- Hydrogen makes up almost 75% of our universe
- Hydrogen is used to power cars and homes
- Hydrogen is used in refining, treating metals, and processing foods
- Using hydrogen as fuel does not produce any pollutants

Business Plan:

- Create high quality clothing with the GREEN way in mind
- Create a brand that people love to wear that does not hurt the environment
- Sell the product on-line through an internet store

Learning Highlights:

- Biometrics is the science of measuring and analyzing biological data
- Biometrics measure body characteristics such as fingerprints, voice, facial and eye
- WiFi is a popular wireless networking technology
- Hydrogen Fuel Cell cars can be powered by battery or solar energy

Goals for 2009/10 School Year:

- Stay in contact with BITHGROUP Technologies
- Take the PSAT this school year
- Research and apply to summer programs for next summer
- Maintain my 3.3 GPA and work towards achieving a 3.5 GPA



BITHGROUP STEM PROGRAM SUMMER 2009 Project Descriptions

Derek Altema



Derek Altema, Junior
Oakland Mills High School

Alternative Energy Research:

- Hydroelectricity is the production of electricity through the force of flowing water
- Non-polluted water is released back into the rivers after electricity is created
- Hydropower is economical, efficient, reliable producing 20% of the world's energy

Business Plan:

- Good Eats will maximize profits by pleasing travelers and daily commuters with quality coffee and freshly-baked goods
- By establishing multiple flourishing locations, our great food, beverage, and convenience will bring people back for more

Learning Highlights:

- Bluetooth is an open wireless protocol used in synchronization of fixed or mobile devices
- Hydropower depends upon high precipitation and elevation changes
- Time management is essential

Goals for 2009/10 School Year:

- Stay in contact with BITHGROUP Technologies
- Take the SAT in the fall of 2009
- Research and apply to summer programs for next summer
- Maintain my 3.8 GPA and work towards a 4.0 GPA



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**Dr. Robert L. Wallace
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Ms. Kim Campbell
Mr. Robert Green
Mr. Corey Culbreath
Mr. Jerome Sanders
Mr. Robert Daniel Wallace
Mr. Warren Woo
Mr. Alonzo Williams
Mr. Jordan Wallace
Ms. Kniesha McClinton
Ms. Courtney Malvik
Mr. Justin Gauss
Ms. Bertha Sanders
Mr. Harry Holt
Ms. Shanelle Marks
Reginald F. Lewis Museum
Frederick Douglas Isaac Myers Maritime Park
Smithsonian National Air and Space Museum
Goddard Flight and Space Center
Morgan State University
University of Maryland at Baltimore County
Catholic Charities Our Daily Bread
Home Science Tools
Parallax**

