

**Southeast Area Education Advisory Council  
Meeting Minutes May 14, 2012**

Meeting called to order: 7:00 PM

Advisory Council Members: Bill Bafitis, Jackie Brewster, Sandra Skordalos, and Bud Staigerwald

Attendees: Erica Cole (Bear Creek ES parent), Maria Lowry (Chesapeake HS Principal), & Sharon Whitlock, (Mars Estates ES Principal)

Presenters: Dr. John Quinn (Executive Director of STEM) with Ron Conner (Technology Integration Teacher Chesapeake HS) and Corri Roche (STEM Coordinator Chesapeake HS)

Presentation:

A PowerPoint slide packet was distributed “STEM Education”. Along with the following materials: Stem Education Standards of Practice Draft from the MSDE, BCPS STEM brochure “Shaping Our Future” and Baltimore County STEM Alliance brochure “Inventor? Explorer?

**Innovator?”**

- What is STEM? In 2001 Judith A. Ramaley (NSF) was the first person to brand science, technology, engineering and mathematics as STEM. Now it is used in scientific communities, workplace and education. In the past most of our focus has been on reading and math. Now we are looking to provide engaging activities that include science, math, technology, and engineering as well. It is a cross curriculum approach.
- Basic Tenets of STEM Education: Students need a strong foundation in STEM. Not enough students are pursuing courses and studies in STEM. We need to shift from memorization to problem solving, creating and innovating. We need to help attract students to this field by changing the image they have of scientists.
- STEM Ed is a Workforce Issue: Students are not electing to pursue STEM careers. Due to base realignment and closing, this is becoming a problem in Maryland. High tech. workers must be able to pass security clearance therefore these jobs are not easily outsourced. Our ability to innovate allows us to compete in the global market.
- What is happening with STEM Education in Maryland? It is not a course for credit or a traditional curriculum with scope and sequence. It is not what is taught, but how it is taught.
- Race to the Top Application for Maryland mentions STEM more than 1200 times. It is a means to deliver college ready curriculum and career ready curriculum for life beyond high school. STEM directly supports the Common Core State Standards.
- STEM Standards of Practice:
  1. Learn and Apply Rigorous Science, Technology, Engineering, and Mathematics Content
  2. Integrate Science, Technology, Engineering and Mathematics Content
  3. Interpret and Communicate STEM Information
  4. Engage in Inquiry
  5. Engage in Logical Reasoning
  6. Collaborate as a STEM Team
  7. Apply Technology Appropriately
- Next Steps: Develop K-12 curriculum. Develop a Stem Toolkit with STEM units. Create and Implement STEM trans-disciplinary activities across the state.

- For Students Interested in STEM, we need to offer rigorous high school course, specialized CTE programs, extended day and extended year programs for interested students, clear pathways to career fields, and opportunities to explore STEM careers before college (internships).
- BCPS Vision for STEM Education includes a greater emphasis on Technology and Engineering. Includes investigations that include all areas.
- K-12 STEM Future Focus Areas will include: Independent Research, Computer Programming and Cyber Security, Engineering and a Talent Spotting & Development Network which will track students from elementary through high school.
- Learning experiences that are as real world as possible.

At Sollers Point they will have the new Cyber Security program. Chesapeake STEM Academy offers many unique programs including the Virtual Lab, STEM learning studies, teacher externships (teachers spend time over the summer with STEM professionals) and Project Innovation. They created an APP with students from Norwood ES. One of the projects was to build an underwater robot to deal with an oil spill (relating to the Gulf Coast Oil Spill). A student is working on a project that could be patented involving the Easy Pass. Every school must have a STEM liaison (State Race to the Top money).

Questions and/ or Comments:

Will courses be offered in all high schools? It would be nice to have higher level STEM classes at all high schools. Especially an alternative to the AP Biology class that is not geared towards the STEM philosophy since much of it is memorization and very little science practice. A class similar to the Project Innovation course at Chesapeake HS would be a welcomed challenge for STEM oriented students. They are looking into changing courses, including the AP Biology class. They are also looking into independent research projects as well as the project innovation course.

STEM Fair Projects- Why are they not handled the same in all schools? It is unfair at the county level to be judged when they are completed in different manners. It would be nice to have scientists or selected high school science students help kick off the STEM fair projects especially at the elementary schools. They would go over the scientific methods and possible do some hands on science activities with the students.

Presentation Period Ended 8:18 PM

### Advisory Council Meeting

The council met to discuss any questions or concerns:

- Minutes from April– Approved.
- Thanks to our host school Mars Estates ES. The principal attended our meeting.
- A parent wanted to know how the Patapsco HS magnet program worked and if their dance students went on to perform with different groups. Mrs. Skordalos answered those questions.
- A parent asked about uniforms. She would like to see all students wear school uniforms. There were concerns about students wearing sandals, flip flops and hoodies.
- Concerns about special education teachers as well as the instructional assistants being cut. In order to have true inclusion, there needs to be more than one teacher and one IA at a school. How are they supposed to work with all of the students?
- Is there data to support the cutting of summer school programs from elementary schools?
- How do we get more parents involved in our schools? What activities have been successful in other schools?

- What can we do to improve attendance in our schools? There seems to be a new trend of student absenteeism on Mondays and Fridays.

Meeting Adjourned: 9:24 PM

Next meeting: June 11<sup>th</sup> 6:30PM TBD Planning Meeting