

BALTIMORE COUNTY PUBLIC SCHOOLS

DATE: March 22, 2011

TO: **BOARD OF EDUCATION**

FROM: Dr. Joe A. Hairston, Superintendent

SUBJECT: **REPORT ON THE CONCEPTUAL K-4/5-8 STEM ACADEMY FOR THE NORTHWEST AREA**

ORIGINATOR: Roger Plunkett, Assistant Superintendent, Curriculum and Instruction

RESOURCE PERSON(S):

RECOMMENDATION

To inform the Board of Education of the opportunity to provide a K-4/5-8 STEM Academy in the Northwest area.

Attachment I – Executive Summary
Attachment II – PowerPoint Slide

BALTIMORE COUNTY PUBLIC SCHOOLS
Executive Summary

***Report on Conceptual K-4/5-8 STEM Academy for
the Northwest Area***

Baltimore County Public Schools has a unique opportunity to provide a comprehensive and focused STEM instructional program that will include grades kindergarten through eighth grade. The proposed instructional program includes a strong focus on science, math, and technology. To continue this strong focus and to provide the Northwest area students with an elementary and middle school with a strong focus on these subjects, staff has been directed to explore a K-4/5-8 STEM Academy.

STEM education plays a critical role in our country's competitiveness and future economic prosperity. In his "Educate to Innovate" campaign, President Obama stated "Reaffirming and strengthening America's role as the world's engine of scientific discovery and technological innovation is essential to meeting the challenges of this century." During President Obama's visit to Parkville Middle School on February 14, 2011, he emphasized the importance of STEM education and that improving STEM education is one of his top priorities. Baltimore County Public Schools under Dr. Hairston's leadership has been, and continues to be, a leader in focusing on a quality instructional program that results in all students doing better in math, the sciences, and language arts as stated in Performance Goal 1 in the *Blueprint for Progress*. Developing the K-4/5-8 STEM Academy for students in the Northwest area will provide a quality STEM academic program.

As educational leaders, we must be proactive in expanding our academic programs while addressing our growing student population. As the enrollment in the Northwest elementary schools continues to grow in these challenging fiscal times, exploring the possibility of moving a fifth grade into a middle school with the provision of a seamless instructional program focused on STEM is an outstanding opportunity.

In adherence to the Belief Statement in the *Blueprint for Progress*: *We believe that improved student achievement requires families and communities to be partners in the educational process,* parents, teachers, and community stakeholders will be included in the development of this exciting and unique opportunity in the Northwest area as staff explores the K-4/5-8 STEM Academy, the operational changes that will need to occur, and the fiscal implications of this innovative strategy.

Ensuring Student Success Through STEM Education

Proposed Northwest K-4/5-8 STEM Academy



CURRICULUM

Integration of Science, Technology, Engineering and Math
Research Driven
Engineering Is Elementary
21st Century Skills
Gateway to Technology
Inquiry Based Science
Environmental Education
Reading/Writing Initiative

INSTRUCTION

Project Based Learning
Exploring
Inventing
Cooperative Learning
Researching/Data Collecting
Higher Order Thinking
Connecting to Real Life Experiences
Student Centered Activities

PROFESSIONAL DEVELOPMENT

Inquiry Science
Gateway to Technology
Engineering is Elementary
Project Based Learning
Cultural Proficiency
Project SEED

PARTNERSHIPS

ASSESSMENT: Formative & Summative, Progress Monitoring, Data Driven Decisions