

Virginia Board of Education Agenda Item



Agenda Item: B

Date: May 23, 2013

Title	Final Review of Proposal to Establish the Pulaski County Public Schools Governor's STEM Academy		
Presenter	Ms. Lolita B. Hall, Director, Office of Career and Technical Education Services		
E-mail	lb.hall@doe.virginia.gov	Phone	(804) 225-2051

Purpose of Presentation:

Other initiative or requirement. Specify below:

Final review of the Proposal to Establish the Pulaski County Public Schools Governor's STEM Academy

Previous Review or Action:

Previous review and action. Specify date and action taken below:

Date: April 25, 2013

Action: First Review

Action Requested:

Final review: Action requested at this meeting.

Alignment with Board of Education Goals: Please indicate (X) all that apply:

x	Goal 1: Accountability for Student Learning
	Goal 2: Rigorous Standards to Promote College and Career Readiness
x	Goal 3: Expanded Opportunities to Learn
	Goal 4: Nurturing Young Learners
	Goal 5: Highly Qualified and Effective Educators
	Goal 6: Sound Policies for Student Success
	Goal 7: Safe and Secure Schools
	Other Priority or Initiative. Specify:

Background Information and Statutory Authority:

Goal 1: The Academy must meet rigorous criteria established by the Board of Education. Students progress in academic and technical knowledge and skills; and their employability knowledge and skills are monitored and measured annually to ensure successful transition to college and career.

Goal 3: The Governor's STEM Academy is designed to expand opportunities for the general student population to acquire STEM literacy and other critical skills, knowledge, and credentials that will prepare them for high-demand, high-wage and high-skill careers.

Partnerships establishing academies must include at least one public school division, business and industry, and postsecondary education. On November 29, 2007, the Board of Education approved the criteria to establish a Governor’s STEM Academy. Subsequently, on March 19, 2008, the Board approved the standards for the Governor’s Career and Technical Education Exemplary Standards Awards Program, which all Career and Technical Academies must implement.

As required by the Board of Education, the State Council of Higher Education for Virginia (SCHEV) has reviewed the attached proposal and recommends that the Board approve the proposal. Staff members of the Virginia Department of Education (DOE) have reviewed the proposal in the context of the Board’s criteria. An executive summary of the proposal is in Attachment A. Attachment B is the report from the review by SCHEV and Attachment C is the report from the review by the VDOE. Attachment D is the complete proposal.

Currently, there are 18 Governor’s STEM Academies in Virginia. They are located in Arlington County, Carroll County, Chesapeake City, Chesterfield County, Fairfax County, Halifax County, Hampton City, Loudoun County, Lynchburg City, New Kent County, Newport News City, Richmond City, Richmond County, Roanoke County, Russell County, Stafford County, Suffolk City, and Virginia Beach City.

Summary of Important Issues:

The proposal for the Pulaski County Governor’s STEM Academy *Pathways to Success* outlines a program that will provide rigorous academic content concentrating on three career pathways: Construction, Production, and Engineering and Technology. Student learning and achievement will be enhanced through the integration of core academics, a STEM-focused curriculum, applied technology, and increased participation in career and technical student organization leadership events. The Academy is a partnership between Pulaski County Public Schools, Pulaski County Chamber of Commerce, Pulaski County Community Development, Pulaski County Board of Supervisors, New River Community College, Virginia Tech, Caterpillar, OWPR Inc., Appalachian Machine Incorporated, Habitat for Humanity New River Valley, BAE Systems, and Joint Services for Pulaski County. The overall goals of the Pulaski County Governor’s STEM Academy are to provide students with 21st century, STEM-enriched technological skills and the knowledge necessary to succeed in postsecondary education and in the world of work. Courses in engineering, electricity, and welding will help prepare students in Pulaski County Public Schools to meet the rigorous work force demands of STEM careers.

The Academy will focus on the following three career pathways within three career clusters:

CAREER CLUSTER	CAREER PATHWAY
Architecture and Construction	Construction
Manufacturing	Production
Science, Technology, Engineering, and Mathematics (STEM)	Engineering and Technology

Pulaski County High School students selecting the **Construction** pathway will have the opportunity to earn dual enrollment credits in the core academic areas as well as in electricity. The Virginia Employment Commission’s *Community Profile for Pulaski County* lists construction in its top-five projections for long-term industrial employment for Pulaski County. Students completing this pathway can pursue an Associate of Applied Science Degree in Electrical Engineering Technology or an

Associate of Applied Science Degree in Electronics Technology. Completion of these programs will also give students a head start on earning their electrical journeyman license, master electrician license, or contractor license.

Pulaski County High School students selecting the **Production** pathway will have the opportunity to earn dual enrollment credits in the core academic areas as well as in welding. Local business and industry leaders have confirmed that this pathway meets both the present and future work force needs of Pulaski County in high-wage, high-skill fields. Pulaski County High School students completing this pathway can pursue a certificate in welding. The certificate program will include welder qualification and certification with the American Society of Mechanical Engineers (ASME) Welding and Brazing Qualification and the American Welding Society (AWS).

Pulaski County High School students selecting the **Engineering and Technology** pathway will have the opportunity to earn dual enrollment credits in the core academic areas as well as in drafting and refrigeration and air conditioning. The Virginia Employment Commission's *Community Profile for Pulaski County* lists heating, air-conditioning, and refrigeration mechanics and installers as growth occupations for Pulaski County. It also lists professional, scientific, and technical services in its top-five projections for long-term industrial employment for Pulaski County. Students completing this pathway can pursue engineering degrees at a four-year postsecondary institution or an Associate of Arts and Sciences Degree in Engineering at New River Community College.

Pulaski County High School students in all three pathways may take Advanced Placement courses at Pulaski County High School to earn college credit. By taking advantage of course offerings at Pulaski County High School, the Pulaski County Governor's STEM Academy, and classes through New River Community College, students could earn an associate degree while in high school. All students will be eligible for industry certifications pertinent to their selected pathway, as well as the Workplace Readiness Skills for the Commonwealth examination.

In summary, the Pulaski County Governor's STEM Academy will provide students with 21st century, STEM-enriched technological skills and the knowledge necessary to succeed in postsecondary education and in the world of work. This will be accomplished through authentic, rigorous, project-based work while building partnerships with parents and community and business leaders to meet these goals.

Impact on Fiscal and Human Resources:

Funding for implementation must be provided at the local level.

Timetable for Further Review/Action:

The proposed beginning date for the Pulaski County Public Schools Governor's STEM Academy is school year 2013-14.

Superintendent's Recommendation:

The Superintendent of Public Instruction recommends that the Board of Education approve the proposal to establish the Pulaski County Public Schools Governor's STEM Academy.