

KNOX COUNTY SCHOOLS

ANDREW JOHNSON BUILDING

Dr. James P. McIntyre Jr., Superintendent



MEMORANDUM

To: Chair and Members
Knox County Board of Education

From: Dr. James P. McIntyre, Jr.
Superintendent

Date: October 28, 2010

Subject: Knoxville STEM Academy High School

Attached please find a conceptual proposal and draft work plan for a potential science, technology, engineering and mathematics (STEM) high school in our community. This unique and exciting opportunity is envisioned as a high quality, stand-alone STEM magnet high school that will be designed to have a considerable regional impact.

Developing this rigorous educational opportunity for our students makes a great deal of sense given the rich regional STEM assets we enjoy in this area, including a major research university (the University of Tennessee's flagship campus), the Oak Ridge National Laboratory complex and associated universities, and the many technology, science and engineering businesses that call the greater Knoxville area home.

STEM education is a compelling new direction that many leaders in science, business and education believe is both relevant and necessary as we prepare our students to innovate in an increasingly complex world and to compete in our increasingly global economy. As a unifying theme for this proposed high school, the STEM disciplines will require our students to develop habits of inquiry, cognition and learning that will help them to be successful in whatever endeavors they may pursue in life. A rigorous education in the STEM fields may also enhance the potential of robust and exciting career opportunities for our students' future.

This proposal for a STEM high school in Knox County has its origins in our strategic plan, *Excellence for All Children*, as well as in Tennessee's successful reform application in the federal *Race to the Top* competition. In fact, Tennessee's *Race to the Top* plan specifically allocates \$3 million for the startup of a STEM high school in Knoxville. With a confluence of interest, support, and momentum around this concept, the Knox County Schools has the chance to be a strong leader in STEM education, not only here in the Innovation Valley and East Tennessee, but across the state. In order to take advantage of this unique opportunity, I believe we must move ahead expeditiously.

The attached conceptual proposal and draft work plan detail the preliminary structure, curriculum, budget, partnerships, regional impact, and philosophy of the Knoxville STEM Academy high school. Over the past two years, we have had discussions with a number of potential partners, stakeholders, employers, parents, educators, policy makers and students about the concept of a STEM high school. Our most recent discussions, with critical partners such as the University of Tennessee, Oak Ridge National Laboratory, Battelle, the Great Schools Partnership, SCORE, Oak Ridge Associated Universities, and representatives from the Governor's Office and the Tennessee Department of Education have all been very positive and point toward moving forward with this important initiative.

Based on the broad support for this initiative, and the tremendous opportunity it represents for our students, I would respectfully request that the Board of Education approve my recommendation to create a STEM Academy high school, pending identification of an appropriate facility. I strongly believe that this is one of several important strategies that will help us to achieve our ambitious goal of *Excellence for All Children*.