



MathScience Innovation Center  
*Imagine. Create. Lead.*

A Consortium of 8 Public School Divisions  
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August 21, 2009

## 19 Central Virginia Educators Complete Nanotechnology Fellows Program

Nineteen “master educators” completed a two-week Summer Institute on Nanotechnology and nanosciences funded by the Altria Group.

Teachers included 4 from **Chesterfield County Public Schools**: Martin Goehle (Matoaca High School); Eric Koontz (Manchester Middle School); Cathleen McCarthy-Burke (Math and Science High School at Clover Hill); and Yvonne Pfluger (Cosby High School); 1 from **Colonial Heights Public Schools**: Katherine Kelley (Colonial Heights High School); 4 from **Hanover County Public Schools**: Pamela Gentry, Eileen Malick, Karen Trickett and Jeremy Watts (all from Atlee High School); 3 from **Henrico County Public Schools**: Jennifer Sower (Deep Run High School); M. Kathleen Stansbury (Mt. Vernon Middle School); and Jason Sterlace (Tucker High School); 1 from **Powhatan County Public Schools**: Christy Thomas (Powhatan High School); and 6 from **Richmond Public Schools**: Cindy Carter (Thompson Middle School); Torey Diggs (Franklin Military School); Donyelle Granderson and LaTonya Waller (Lucille Brown Middle School); Crystal Wood (Thomas Jefferson High School); and Patricia Woodberry (Holton Elementary School).

The Nanotechnology Fellows Program is a capacity-building workforce program for K-12 educators. Through the program and a pair of associated conferences, the Center will expand math and science teachers’ opportunities to learn about the emerging field of nanotechnology and effective ways to integrate it within the curriculum. During the Fellows Summer Institute the 19 Master Educators built their understanding of this emerging science as they were introduced to fields in nanotechnology through 8 keynote speakers and three field trips (one was remote with Penn State!), as well as sessions conducted by MathScience Innovation Center faculty.

As Mary Frances Hobbs, MathScience Innovation Center Faculty explained: “nanotechnology is interdisciplinary. It is powerful. It is a great venue to bring math and all the sciences together. There are already many consumer products on the market and many on the way. Manipulation at the smaller scale allows us to look at significant challenges, make sense of them and open up new possibilities and solutions, not only with consumables, but in the health arena. Most of these educators have been in the same discipline their entire careers. Nanoscience will give them a bigger picture and allows them to understand and see things in a new way. For example, it explains how a non-living thing can reproduce, like viruses.”

Brian K. Wells, Manager of Production for Philip Morris USA, an Altria company, serves on the Board of Directors for the MathScience Innovation Center Foundation. Mr. Wells noted, “As leading employers based in central Virginia, Altria is committed to helping spark students’ interest in the study of math and science, which are the basis of so many career disciplines. We commend the MathScience Innovation Center for focusing on teacher training in order to raise the level of local math and science instruction and contribute to Central Virginia’s competitiveness in the global marketplace.”

Nanotechnology Fellows receive an honorarium and CEU’s, but more importantly, are then recognized as Nanotechnology Specialists within their school division.

The MathScience Innovation Center is proud to be the leader of K-12 math and science education for the eight Central Virginia school divisions within our forty-three year old Consortium (Chesterfield, Colonial Heights, Hanover, Henrico, King William, Petersburg, Powhatan and Richmond Public Schools) and the capacity building workforce program for K-12 educators and students that provides expanded opportunities to learn about emerging fields (fractal geometry, engineering, nanotechnology, environmental modeling) and effective ways to integrate within the curriculum.