



The Coalition

- Articulates the need for improved mathematics and science education.
- Advocates rigorous standards and curricula for mathematics and science courses.
- Supports high-quality assessment and accountability systems that are congruent with learning standards and best-practices.
- Assesses critical needs in teacher education and works to implement policies that enable educators to stay current with advances in the STEM disciplines and learning theory.
- Researches best practices for teaching STEM and advocates for approaches consistent with findings.
- Provides reliable information about mathematics and science programs and related links with engineering and technology.

www.vamsc.org

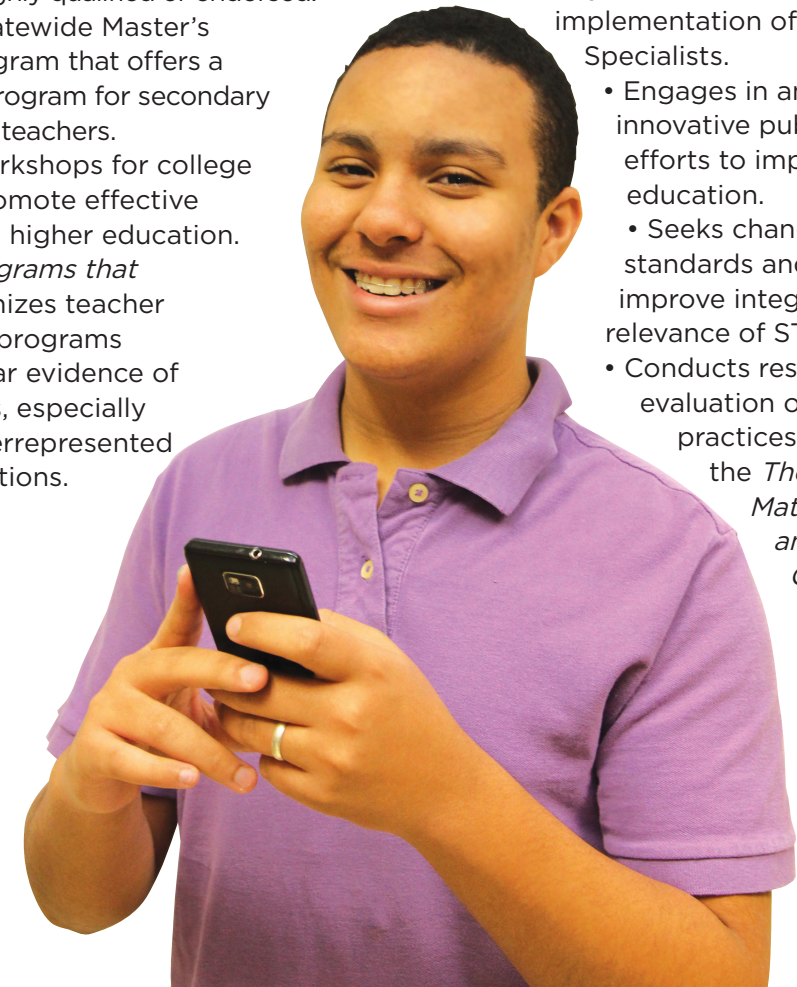
Coalition Activities

The Coalition bases its activities upon the research of national organizations including the National Academy of Sciences, the National Science Foundation and other organizations with which it is affiliated. The Coalition's major activities fall into two categories: teacher preparation and research and public policy. In addition, the Coalition maintains a website that describes the current Coalition activities, services and position statements. Coalition board and staff members provide continuing support services to school systems in targeted areas.



Teacher Preparation

- Offers a Statewide Master's Degrees program that enables participants to be endorsed as K-8 Mathematics Specialists.
- Supports the development of statewide courses and workshops that model best practices for teaching and leading mathematics and science education.
- Works with Virginia institutes of higher education to develop high-quality programs to educate prospective teachers including career switchers.
- As needed, offers statewide programs that enable teachers in critical shortage areas to become highly qualified or endorsed.
- Piloting a Statewide Master's Degrees program that offers a specialized program for secondary mathematics teachers.
- Sponsors workshops for college faculty to promote effective instruction in higher education.
- Through *Programs that Work*, recognizes teacher and student programs with multiyear evidence of effectiveness, especially with underrepresented populations.



Research and Public Policy

- Compiles, analyzes and summarizes data in position papers which are designed to increase sound policy development in key areas.
- Provides information and comment on public policy issues to the Virginia Board of Education, the Virginia Department of Education, the Virginia executive and legislative branches and the public.
- Provides continued resources, funding and research to support full implementation of K-8 Mathematics Specialists.
- Engages in and encourages innovative public-private efforts to improve STEM education.
 - Seeks changes to state standards and curricula to improve integration and relevance of STEM courses.
- Conducts research and evaluation of policies and practices and publishes the *The Journal of Mathematics and Science: Collaborative Explorations*.



Vision: All Virginia students will have the mathematical and scientific knowledge and skills necessary for success in society and for pursuit of a STEM-oriented career.

Mission: To bring together education, scientific, corporate and public policy leaders committed to the sustained elevation of mathematics and science education to ensure that all Virginia's students and citizens have the foundation required for life-long success in their daily lives, careers and society.

Overview

The Coalition is a private, nonprofit 501(c)(3) organization that supports efforts by school systems, teachers, parents, students, the Commonwealth of Virginia and other interested parties to achieve and sustain excellence in mathematics, science, engineering and technology (STEM) education for Virginia's K-12 and higher education students.

The Coalition has a board of 30 members representing corporate, educational, governmental, non-profit and scientific institutions. A support staff provides additional expertise and increases geographical and educational diversity. Collaboration with other organizations provides strong links for addressing ongoing mathematics and science educational concerns.

Currently, Coalition members are involved with more than \$50 million in grants from national, state and regional funders. These grants involve many of Virginia's public institutions of higher education and almost every school district in the state, with several districts linked to multiple grants.

Represented Institutes of Higher Education

- College of William & Mary
- George Mason University
- James Madison University
- Longwood University
- Mary Washington University
- Norfolk State University
- Old Dominion University
- Radford University
- State Council of Higher Education for Virginia
- University of Richmond
- University of Virginia
- Virginia Commonwealth University
- Virginia Community College System
- Virginia Polytechnic Institute and State University

National Affiliations

- International Technology and Engineering Educators Association
- National Alliance of State Science and Mathematics Coalitions (**)
- NASA Langley Research Center
- National Council of Teachers of Mathematics
- National Science Teachers Association
- Triangle Coalition (**)

(** VMSC is a dues-paying member)

Associated Professional Organizations

- Virginia Academy of Science
- Virginia Association of Science Teachers
- Virginia Council for Mathematics Supervision
- Virginia Council of Teachers of Mathematics
- Virginia Education Association
- Virginia Science Education Leadership Association
- Virginia Technology and Engineering Education Association



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