



Triangle Coalition 2008 Legislative Platform

Doing What's Best to Support and Encourage Excellence in

Science, Technology, Engineering, and Mathematics (STEM) Education

A strong commitment to science, technology, engineering and mathematics (STEM) education will continue to be the driver of American economic growth and innovation. Triangle Coalition believes that there are numerous opportunities available through the legislative process to advance STEM education as Congress deliberates the Federal Budget for Fiscal Year 2009. This year is also critical because of the reauthorization of No Child Left Behind, which provides additional opportunities for the 110th Congress to demonstrate leadership in STEM education. Many of the items listed below should be part of that reauthorization process while others may be dealt with through other legislative avenues, but they all represent ways to help keep America competitive in a global economy.

▲ Fully fund Title II part B Math Science Partnerships at the Department of Education.

This program supports state education offices as they seek to improve student performance in mathematics, science and technology. Funds are distributed directly to the states allowing them to target the areas and subjects of greatest need and to put programs in place that provide the greatest impact, including the implementation of many programs developed through the complementary MSP program at the National Science Foundation . The Title II part B Math and Science Partnership program has never been fully funded and for the past several years has been flat funded at less than half of its authorized level. Congress should fully fund the Department of Education Math Science Partnership program, include technology education within the program, and commit the funds needed to make the necessary progress in STEM education.

▲ Amend the No Child Left Behind Act to require science be part of AYP.

Congress should require the inclusion of science in the states' calculation of adequate yearly progress (AYP). In doing so Congress should allow states greater flexibility in determining what constitutes progress so as to encourage the use of hands-on, inquiry based instruction of science. Allowing for greater flexibility will encourage states to develop performance based models that are more in keeping with the way in which students should learn science and would allow proper evaluation of student performance in science.

▲ Dedicate 50% of the funding under Title II part A to teacher professional development.

Congress should require that 50% of the funds available within Title II part A be used for programs that support teacher preparation and retention in core subjects, provide ongoing professional development for current teachers, and provide mentoring for newly certified teachers as well as those pursuing teaching through alternative licensure programs. Preference should be given to programs that encourage and support teaching efforts in high-need fields such as science, math and technology.

- ▲ **Provide funding to establish K-8 Master Teachers or Content Specialists in STEM Fields.**
As the No Child Left Behind Act is reauthorized Congress should provide resources to encourage states to provide content specialists in science, math, and technology fields at the K-8 level. Numerous studies have shown that it is during these early grade levels that foundations are created for the more rigorous STEM courses in the secondary schools, and yet many teachers in elementary grades lack the content knowledge or pedagogical skills to adequately teach these subjects. Master teachers would provide mentoring to other teachers, develop model lessons or co-teach lessons, and offer in-service professional development for teachers to obtain the needed skills and content knowledge.

- ▲ **Fully fund the investment it authorized in the America COMPETES Act.**
This \$43.3 billion legislation package, passed with broad bipartisan support, calls for increased funding in Federal research and development budgets across the Federal agencies. Within this investment COMPETES provides for increased investment in STEM education at the Department of Education, NSF and within the “Mission Agencies.” Education programs authorized under COMPETES, including the Robert Noyce Scholarships, the NSF Math and Science Partnerships, and others, would fund efforts to improve K-12 STEM education at the classroom level, improve the quality of teachers, provide scholarship opportunities for those seeking to become teachers in STEM fields, and provide for experiential learning opportunities to enhance educator content knowledge and practice. Congress should commit to America’s future success and fully fund the COMPETES Act.

- ▲ **Increase support for Federal mission agencies involved in STEM Education**
Federal R&D mission agencies, particularly those with national laboratories, such as the Department of Energy, the Department of the Interior, the Department of Agriculture, NIH, NIST, NOAA, NASA and Department of Defense have a unique role to play in STEM Education. They can provide hands-on research and experiential learning opportunities, with world class mentor scientists, to students and educators. These programs are typically under-resourced and efforts are often fragmented. Congress should develop comprehensive legislation that clarifies the roles and responsibilities of Federal R&D mission agencies in STEM Education, particularly the experiential learning opportunities provided through Federal national laboratories, and provide sufficient resources to enable those agencies to make an impact on the STEM Education challenge facing our Nation.

Triangle Coalition’s mission is to bring together the voices of government, business, and education to improve the quality and outcome of mathematics, science, and technology education

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