

NSTA 2011–2012 Legislative Platform

2012

Elementary and Secondary Education Act

Reauthorization of the Elementary and Secondary Education Act (ESEA, No Child Left Behind) should be a priority for the 112th Congress. NSTA is pleased to submit these suggestions regarding ESEA law that would strengthen STEM education.

1. Support state implementation of Next Generation Science Standards and the Common Core State Standards in Mathematics.
2. Include science in the new ESEA accountability system.
3. Ensure more and dedicated funding is targeted to STEM teacher training.

Change the Math and Science Partnership Program to State Grants to Implement Common Core Standards in Mathematics and Next Generation Standards for K–12 Science

NSTA believes that common standards in science and mathematics will encourage a seamless system of K–12 STEM education comparable to the STEM systems of high-performing international countries. Common standards will ensure that all students—no matter what school they attend—master the skills and develop the knowledge needed to participate in the global economy.

A number of states and the District of Columbia have formally adopted the Common Core Standards in mathematics.

The voluntary Next Generation Standards for K–12 Science Education, scheduled for release in winter 2012, are based on a framework developed by the National Research Council with input from state leaders. Both the Common Core State Standards and the Next Generation Standards for K–12 Science Education will set clear, realistic expectations for learning that are consistent from state to state to ensure that high school graduates are prepared for college and the workforce.

States that adopt the Common Core State Standards for grades K–12 in Mathematics and, next year, the Next Generation Standards in K–12 Science Education must also:

- work to make significant changes to align the new standards to state assessments;
- provide professional development for teachers and administrators to use the standards;

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- use evaluation systems to hold educators accountable for implementation of the standards;
- develop new curriculum or instructional practices aligned with the common standards; and
- align teacher preparation programs to new standards.

In this current economic climate, many states and districts will be greatly challenged to fund few, if any, of these initiatives. NSTA believes the current Math and Science Partnership (ESEA Title II Part B) program should be retooled so that funding goes directly to the states via formula grants to fund state and district initiatives to implement both Common Core State Standards for Grades K–12 in Mathematics and Next Generation Standards in K–12 Science Education.

Include Science in the New ESEA Accountability System

The revised ESEA should contain a provision that would include science scores as a required component of the new ESEA accountability system. Under current ESEA law, student scores in math and reading count toward the school's Adequate Yearly Progress. All states must now test in science, and science scores must be reported—but science scores are not part of the school's accountability measurements. As a result, the Center for Education Progress (CEP) found that almost 44% of districts cut time from elementary science instruction.

Bill language should also encourage states to be flexible when assessing student performance, skill, and knowledge in the sciences by using measures such as written assessments, performance-based testing, project-based work, and portfolio projects.

Designate a Portion of ESEA Title II Part A for STEM Professional Development

Ongoing professional development for STEM teachers is critical. Under current federal education law, states and districts can use Teacher Quality State Grant funds (Title II Part A) for various purposes. The reality is that even though state and local decision makers see the need for intense professional development, they often find

themselves pushed to address other priorities, forcing these funds to be spent on efforts other than this congressionally intended investment. An ongoing guarantee of professional development funding is critical to inservice STEM educators, who face the challenges of using data to modify classroom techniques, research to inform instruction, and ongoing motivation and creativity to teach every child in every classroom. Professional development should focus on content knowledge, active learning, and be coherent with other activities and include collaborative learning opportunities.

The revised federal education law should include language stipulating that districts must spend a designated portion of their Teacher Quality State Grant funds specifically on science and math education teacher professional development.

NSTA fully supports the Administration's plans to recruit and prepare 100,000 STEM teachers over the next 10 years. NSTA also supports recommendations from the PCAST report, *Prepare and Inspire: K–12 Education in Science, Technology, Engineering, and Math (STEM) for America's Future*, that:

- Dedicate resources specifically for the establishment of programs to hire and/or train Master Teachers (also known as science specialists or science coaches) at the K–8 level;
- Provide opportunities for students to participate in out-of-class activities that can provide students with individualized, transforming experiences with STEM subjects;
- Create STEM-focused schools at the middle and secondary levels that would serve as testing grounds for approaches to STEM-focused education in a diverse range of settings;
- Develop leadership development programs for education leaders, including school principals, district leaders and state superintendents, to provide them with information on best practices in achieving excellence in STEM education;
- Create programs that connect middle and secondary students and teachers to STEM college students, scientists, technicians, and engineers; and
- Increase the number of students who take and pass AP and IB courses in STEM subjects.

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