National Center for Technological Literacy®

Museum of Science, Boston

LEGISLATIVE PRIORITIES FOR THE REAUTHORIZATION OF THE ELEMENTARY AND SECONDARY EDUCATION ACT (ESEA)

The National Center for Technological Literacy (NCTL) ® at the Museum of Science, Boston aims to enhance teacher and student knowledge of technology and engineering and to inspire the next generation of engineers, inventors, and innovators. Recognizing that a 21st-century curriculum must include today's human-made world, the goal of the NCTL is to introduce engineering as early as elementary school and continue it through high school. NCTL works nationwide with leaders in education, government, and industry to integrate engineering as a new discipline.

Technology and Engineering education includes curriculum and instruction that: (a) teaches innovation and the engineering design process using a variety of tools, mathematical models, materials, processes, and other resources; (b) develops an understanding of the many fields of technology, engineering, and related careers; and (c) enhances proficiency in problem solving techniques, through the application of engineering design principles. Since our focus is on Technology and Engineering in STEM (science, technology, engineering and mathematics) education and in advancing Technological Literacy, NCTL recommends that the reauthorization of ESEA:

1. Allow informal STEM education centers and other non-profit educational organizations to receive funds to provide teacher professional development;

2. Allow after school program funds to be used for Technology and Engineering learning, in addition to Math and Science activities;

3. Expand and rename the Math/Science Partnerships to STEM Partnerships to include Technology and Engineering educators in professional development opportunities for teachers;

4. Ensure all definitions of "technology literacy" are consistent with the Preparing Teachers for Digital Age Learners (P.L. 110-315, Part B of the Higher Education Opportunity Act), which includes the ability "to analyze and solve problems, including the application of the engineering design process;"

5. Encourage State science assessments to reflect the National Assessment of Educational Progress (NAEP) Science 2009 Framework, which includes "technological design skills" *and* help states prepare for the NAEP Technological Literacy Assessment due in 2012.

6. Include Technology and Engineering instruction, in addition to Math and Science, in any new provisions dealing with core curriculum development and/or expanded learning time and in the definition of "rigorous curricula;" and,

7. Allow States that develop multiple State assessment models or indicators for accountability purposes to include measures related to Technology and Engineering.

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