



CT Academy for Education
In Mathematics, Science & Technology, Inc.

A Chronicle of 18 Years of Excellence

Major Program Accomplishments by Category – Updated March 15, 2010

1. EDUCATIONAL IMPROVEMENT PROGRAMS

- 1.1. **CONNverge:** The General Electric Foundation, Northeast Utilities, and Hamilton Sundstrand in partnership with the CT Academy are advancing this statewide, grassroots effort to help children, with support from parents and teachers, to become more engaged in and responsible for learning of mathematics and science materials.
- 1.2. **CT Algebra I Curriculum and End-of-Course Assessment Program:** The CT Academy, in partnership with the Association of Teachers of Mathematics in Connecticut (ATOMIC), the Connecticut Council of Leaders of Mathematics (CCLM), the Mathematics Basic Skills Council of Connecticut (MBSCC), the Mathematical Association of Two-Year Colleges of CT (MatyCONN), and the Project to Increase Mastery of Mathematics and Science (PIMMS) to develop and deliver a rigorous and engaging CT Algebra I Curriculum. The project includes specific learning expectations with examples, organized into coherent instructional units with sample lessons for each unit, as well as examples of formative, interim, and model end-of-course assessments. The collaboration will also develop and deliver a model for the professional development of teachers and their schools/districts that will support their transition to the model Algebra I curriculum. – *January 2009*
- 1.3. **CT After School STEM Middle and Secondary School Modules:** The CT Academy facilitated a partnership with the CT Academy of Science & Engineering (CASE), CT Career Choices (CCC), the CT Center for Advanced Technology (CCAT), the CT Pre-Engineering Program (CPEP), the CT Women’s Education & Legal Fund (CWEALF), the Center for 21st Century Skills@Education Connection (C21stCS), the School of Engineering and Technology at Central CT State University (CCSU), and the SE CT Science & Technology Magnet High School (SE Magnet) to develop a CT Middle and High School STEM After School Program for students at the middle and high school levels for the CT State Department of Education. - *August 2008*
- 1.4. **CT After School STEM Report to Legislature’s Education Committee:** The CT Academy conducted a study on the Impact of Supplementary Science, Technology, Engineering, and Mathematics (STEM) Programs. The study’s objective was to identify the best practice characteristics of STEM programs outside the formal education environment – Out-of-School Time (OST) and examine cost-benefit analysis procedures and teacher training activities for OST-STEM-related programs. - *January 2007*
- 1.5. **The Learning Mathematics for Teaching** assessment tool evaluates the mathematical knowledge needed for teaching, and how such knowledge develops as a result of experiences and professional learning. – *June 2008*
- 1.6. **CONNvene:** CT Academy facilitated Governor Rell’s science, technology, engineering, and mathematics STEM initiative that established 18 recommendations for a statewide, improvement plan that will increase all students’ interest and achievement in STEM subjects. - *2005 through present*
- 1.7. **Refining Your Strategies: Mathematics & Science:** research-based, data-driven professional development services and measurement tools delivered to educators at the district-, school-, and classroom-levels. Our approach is driven by use of appropriate



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technologies, system-wide improvement strategies, and achieving measurable results. Services have been used by 132 of CT's 166 (79.5%) school districts. – *2000 through present*

- 1.8. **CT Academy Science Assessment Program[®] (CASAP[®]):** a science diagnostic tool to measure the strengths and weaknesses of a district's elementary and middle school science programs—both the delivery of science as well as the development of science process skills. CASAP[®] has been used by 75 CT school districts. - *1998 through 2006*
- 1.9. **CASAP[®] Version 2.5:** Update of original CASAP[®] science diagnostic tool to align with the new (2005) CT State Department of Education Science Framework. – *2006 through present*
- 1.10. **Model PreK-6 Mathematics Curriculum Initiative:** a partnership among State Department of Education, EDUCATION CONNECTION, CT Academy, and Office of Workforce Competitiveness to develop, implement, and support a mathematics curriculum that aligns to new State standards. – *2005 through present*
- 1.11. **Pathways I, II, and III Science Workshops:** statewide meetings, co-developed by the CT Academy and CT State Department of Education to provide teachers and administrators an understanding of the Connecticut Science Framework; including how standards will be assessed, and implications for curriculum and instruction. – *2005*
- 1.12. **Understanding the New CT Mathematics Framework:** statewide meetings, co-sponsored by the CT State Department of Education to provide teachers and administrators an understanding of the Connecticut Mathematics Framework; including how standards will be assessed, and implications for curriculum and instruction. – *2005*

2. PARTNERSHIPS

- 2.1. **CT Center for Inquiry Science Teaching and Learning[®]:** a partnership among the CT Academy, Quinnipiac University science and science education faculty, faculty consultants from the University of Connecticut, eight public school systems and one urban-based charter school to develop and implement sustained professional development for teachers of science through the understanding and use of the inquiry approach to teaching and learning. – *2002 through 2004*
- 2.2. **Partnership to Improve Science Education (PISE):** a public private partnership that brought together Connecticut's large and small companies, State Department of Education, and others to support districts in the use of proven practices to increase science achievement and to advocate for a world-class science education system. - *2001 through 2005*
- 2.3. **CT Building a Presence for Science:** an electronic network of science educators in all public/private K-12 schools, colleges, and informal science centers that supports implementing standards-based science programs. – *2000 through present*
- 2.4. **CT Mathematics, Science & Technology Leadership Council:** a collaboration that brings together the leaders of 19 teacher and administrator professional organizations and serves as a broad-based, cross-disciplined forum for analyzing policies, disseminating information, and building coalitions. - *1995 through present*

3. PUBLIC OUTREACH PROGRAMS

Connecticut's General Assembly has recognized the CT Academy as an organization that provides leadership and technical support for the improvement of mathematics, science, and technology education for all citizens.



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- 3.1. **Learning Doesn't Take a Vacation**[®]: a statewide public outreach campaign that included a series of newspaper inserts and television and radio spots directed at child caregivers on how to use out-of-school time to improve learning year long. - *1993 through 1995 and 2007/2008.*
- 3.2. **Gift Ideas to Promote Interest and Understanding of Mathematics and Science**[®]: a statewide piece distributed in partnership with the PTA that provides suggestions for meaningful and fun math and science orientated gifts for children. – *1994 through present*
- 3.3. **10 Expectations Parents Should Have About Their Children's Science and Mathematics Programs**[®]: a statewide piece for child caregivers about what they should look for in their children's mathematics and science education, and helpful hints on how to approach schools in asking the questions. – *1994 through present*
- 3.4. **Discovery Guide**[®]: a guidebook for families and child caregivers that was distributed statewide through libraries and Department of Tourism on where to go in CT to have fun, family-oriented mathematics and/or science activities. - *1994 through 1996*

4. PUBLICATONS

- 4.1. **Recommendations for Improving the Preparation of New Mathematics and Science Teachers**[®]: a set of recommendations distributed to all CT college and university teacher preparation programs on how to improve teacher preparation programs and to increase the number of minority teachers in CT. – *1998 and 1999*
- 4.2. **A Guide to Integrating Technology into Our Schools**[®]: a handbook of recommendations provided to all school districts free with ideas and tools to create viable technology plans to transform the State's technology vision into actual school-based practice. – *1996*
- 4.3. **Educational Time Monograph**[®]: a set of recommendations on the implementation of more and better use of time in CT schools that was used by the CT State Board of Education to develop their policy statement on utilization of educational time. – *1995*

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