These Connecticut Students Are Making Big Gains in Science Test Results, and the Formula is Clear

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What happens when schools, educators, and communities come together to prioritize science learning, curiosity, and creativity? Measurable gains in student achievement and renewed excitement for science in the classroom are achieved through meaningful partnerships.

This hypothesis has been rigorously tested over the past three years, as schools in several communities built engaging STEM (Science, Technology, Engineering and Math) experiences into the school year. Partnering with the Connecticut Science Center to supplement local resources, these schools added field trips, in school and STEM programs, after school enrichment for students, professional development for teachers, and family nights for the community. This collaborative model creates consistent, hands-on science experiences that increase student engagement, build confidence, and strengthen academic performance that can be seen in test results.

At the Hartford Public School District's STEM Magnet School at Annie Fisher, a multi-year partnership has provided professional learning for teachers, in-school programming, co-designed STEM classes, and afterschool experiences for K–8 students. Annie Fisher School 5th graders achieved an 11% improvement in standardized science scores in one year, more than 12% higher than the district average and outpacing the district growth rate of nearly 1%. The successful formula included additional programs such as the NASA Competition for Advancement of Technology in Space (C.A.T.S.) competition, SciGirls mentorship initiative, and FIRST LEGO League Robotics teams offer students real-world STEM experiences that inspire and empower. This sustained collaboration exemplifies a shared commitment to high-quality science learning.

In Groton, student progress and teacher engagement at the Catherine Kolnaski STEAM Magnet School (CKMS) shows how long-term commitment can shift culture and outcomes. Over the past four years, the Science Center provided professional development for teachers and student programs in classrooms to ensure students experience science as a dynamic, daily practice. Here again, the results are dramatic: between 2023 and 2024, the percentage of 5th graders meeting or exceeding expectations on the science assessment rose from 43% to over 67%, well above the state average of 50.8%.

In Manchester, the Science Center support's K–4 STEM teachers year-round while students and families engage through classroom visits and science nights. In East Hartford, Science Center programs are part of afterschool and summer learning, and a bold new collaborative STEM initiative will launch in 2025–2026.

Across all partner schools—including CKMS in Groton, Manchester elementary schools, East Hartford Public Schools, and Annie Fisher STEM Magnet School in Hartford —students showed an average 13% improvement in standardized science test performance between 2023 and 2024. This is more than a test score increase. It's evidence that a shared commitment to embed inquiry-driven, play-based STEM learning into students' experiences builds lasting skills in problem-solving, collaboration, and scientific thinking.

Science, technology, engineering and math-focused learning isn't a one-time event, it's a sustained, evolving set of experiences. When schools are supported with consistent, high-quality programming, the results ripple through classrooms, homes, and communities. Especially when schools are resource-constrained, community-based partners can help them serve their students as effectively as ever. The Connecticut Science Center is proud to serve as a connector, helping schools bring real-world science into students' lives through engaging, hands-on opportunities. Through continued collaboration among schools, districts, municipalities, and philanthropic partners, every child in Connecticut can have the opportunity to wonder, explore, and discover the analytic thinker, scientist, innovator or STEM professional within.