



Hooked on Science

A Concord Education Fund Program

June 1, 2009

It has been a year since the Concord Education Fund unveiled its ground breaking vision for an initiative that would “save the planet by encouraging advanced science study.” If implemented, Concord Carlisle High School could claim true leadership in engineering and science education among Massachusetts public schools

Hooked on Science has been germinating over the past year and the first leafy sprouts saw daylight this spring. As we approach the close of the program’s first academic year, we are pleased to present an update of the substantial progress that has been made.

A Bold Vision. *Hooked on Science* is the outcome of a close collaboration between the Concord Education Fund (CEF), the CCHS Science Department, and a number of generous supporters who see the opportunity to engage more students in the study of engineering and science. The engine driving this program is the creation of a project room or “laboratory” for extended research, experimentation, and engineering. By retrofitting existing storage space at CCHS and purchasing portable equipment and materials, we can transform science curricula, club offerings, and fuel a passion for science education among hundreds of CCHS students.

Implementation is where the rubber hits the road, and I am pleased to report that we have made substantial progress on all fronts this year.

“We have an opportunity – arguably an obligation – to engage our children in advanced science study at the middle and secondary school levels.”

The facility is taking shape. Despite the extreme shortage of physical space at CCHS, with strong support from the school administration we were able to secure a 1,500 square foot room adjacent to the science building for exclusive use by *Hooked on Science*. This required an enormous amount of work. The large room, with high ceilings, concrete floors, and garage door access to the outside, was previously used by the maintenance staff to store floor waxers, snow blowers, and a variety of consumables. We worked with the maintenance staff to relocate those materials (which required the purchase of two storage containers) and prepare the space for new paint, lighting, cabinetry and benches that will be installed in the next 4-6 weeks.

A strong team is engaged. In January, the CEF board formally chartered the *Hooked on Science* Advisory Committee to administer the program, named John Boynton as CEF board representative and chairman, and appointed the following members to staggered three year terms:

Robert Bergman – Rob brings a wealth of business development and sales management experience from the semiconductor industry, as well as a breadth of relationships with potential partners in industry. He is presently Director of

Business Development at Maxim Integrated Products and holds a BS in Political Science and Economics from UCLA.

Frances S. Brown – Fran brings extensive project management experience, as well as non-profit board experience to our Board. She has designed large water treatment systems for Ionics, has been a production engineer in the filters business at Millipore, and has worked in applications engineering and product management. She earned an MS in Engineering Management from Northeastern and a BS in Chemical Engineering from MIT.

Dr. Geoffrey Trussell – Geoff is a marine biologist and professor at Northeastern where he runs Northeastern's Marine Science Center in Nahant, MA. He currently teaches Ecology and an advanced course in Marine Biology, Experimental Design and Statistics. He earned an AB in Biology and Environmental Studies from Bowdoin and received his PhD from the College of William and Mary.

David Wu – David has a 20+ year track record of developing technology-based entrepreneurial ventures from concept to commercial success. He is presently the CEO of AI Squared, a leader in assistive computer technology. He holds an MBA from Harvard and MS and BS degrees in Electrical and Computer Engineering from MIT.

What their resumes cannot adequately convey is the passion each brings to the fields of engineering and education. Note that everybody on the Committee is from Concord three of the four have children in the Concord public school system.

The Committee had its first monthly meeting in February and is holding the first of two half-day "retreats" in early June.

The program is emerging. Michael Vela, chairman of the CCHS Science Department, has developed a curriculum roadmap that includes the creation of new elective courses, extracurricular seminars, and a variety of new and enhanced clubs focused on robotics, engineering, and ecology.

This spring, 16 students (selected from 24 applicants) participated in a new seminar entitled *A Survey of Engineering for the Environment and Beyond*, and another 10 students got hands on with a field research project organized by the Gulf of Maine Institute to assess the impact of environmental change on Blandings Turtles.

"Elements of this program will challenge those who are predisposed to the sciences. Equally important, the program's compelling content and fresh, hands-on approach can't help but ignite the interest of a larger following."

This coming school year, *Hooked on Science* will expand its footprint with new seminars in biotechnology, organic chemistry, and field geography as well as a robotics club that will compete in a national robotics competition.

We are in a strong financial position. When we began fundraising a year ago, our best guess was that *Hooked on Science* would require \$400,000 in funding over its first three years. Now that the Committee is in place, it is refining the budget to match the curriculum roadmap and implementation schedule. It appears that our estimate of \$400,000 may have been high, but we will continue to target our fundraising efforts on that number until a long term budget and business model have been approved.

Inflows	Concord Education Fund	\$	74,900.00
	HoS Donors	\$	119,500.00
		\$	194,400.00
Outflows	Equipment	\$	-
	Facilities	\$	50,281.21
	Fundraising	\$	1,838.09
	Supplies	\$	2,220.54
		\$	54,339.84
Cash Balance at 6/1/09		\$	140,060.16

We were fortunate to have secured multi-year commitments from a number of generous donors before the onset of the global financial crisis last fall, and we are deeply appreciative of the financial support we have received from the Concord and Carlisle community. Our next fundraising event will take place this fall in the *Hooked on Science* Room – stay tuned.

We are probably at the most challenging phase of this project – moving from planning to implementation. We will continue to encounter hurdles, especially as budget cuts roll through the system, but I have no doubt that we are going to create something unique and amazing.

We could not have come this far without your generous support. Thank you and please do not hesitate to contact me if you would like more details.

John Boynton
Chairman, Hooked on Science