

STEM Integration for District Leaders

Entering its third year, the *STEM Integration for District Leaders* program is affecting how schools and districts strategically plan STEM experiences for their students. This is a year-long program, in which teams of district leaders work together to develop a strategic plan for integrating STEM into their schools and districts.

Program Overview

- ❖ A year-long program, consisting of a summer opening institute, 6-7 academic year sessions, and culminating in a presentation of the developed plans
- ❖ The program guides teams of school and district leaders in developing STEM goals, analyzing STEM needs, and identifying funding opportunities
- ❖ The program is tailored to the specific needs of each participating district
- ❖ District **teams** collaborate with other teams on subjects of policy, practice, evaluation, equity, and funding issues related to STEM integration
- ❖ Interweaving theory and practice. Following every meeting, each team will receive an assignment to conduct with the district staff before the next meeting
- ❖ Participants are guided by WPI staff with mentorship from other education leaders who have successfully integrated STEM in their district

Objectives and Expectations

Upon completion of the program, participating districts would have:

- ❖ A greater understanding of the status of STEM at national, state and local levels
- ❖ Defined STEM goals and students' outcomes
- ❖ Mapped all the current STEM programs in their district
- ❖ Mapped all STEM advocates and collaborators in their community (including parents, industry, local business, afterschool programs)
- ❖ Analyzed the STEM needs and expectations of different constituents in their districts (students, teachers, families, community)
- ❖ Developed a logic model that summarizes the investments, activities, and outcomes for the STEM program
- ❖ Prioritized action steps, and determined budget for STEM program implementation
- ❖ Researched funding opportunities
- ❖ Completed a strategic plan for STEM integration
- ❖ Presented the plan to future participants of the program



Participating Teams from years I & II

Year I		Year II	
District	Participants	District	Participants
Douglas (Suburban) 1621 students	<ul style="list-style-type: none"> * Middle school principal * 2 middle school teachers * K-12 Science Vertical Curriculum Team Chair; grade 8 science teacher * Director of K-12 curriculum & high school math chair * Elementary school teacher 	Fitchburg (Urban) 4518 students	<ul style="list-style-type: none"> * District's technology director * STEM support specialist * Asst. principal curriculum at the high-school * Principal, elementary school * AALI coach at a K-8 school * Assistant principal elementary school * Assistant superintendent of curriculum and grants
Leominster (Urban) 6293 students	<ul style="list-style-type: none"> * Superintendent * Administrator for math and science * 2 elementary principals * CTE director * Administrator for Community Engagement * Grade 6 teacher 	Holy Name Central Catholic Jr/Sr High School (Urban, private) 575 students	<ul style="list-style-type: none"> * Principal * Math/Science Dept. coordinator * Math/Science teacher * Technology teacher/ IT manager * Math/Science teacher * Science teacher
Quaboag (Rural, regional) 1382 students	<ul style="list-style-type: none"> * 2 elementary principals * Coach teacher * Middle-high school science teacher & member of the innovation team * District administrator * Director of Student Services 	Mendon-Upton (Suburban, regional) 2554 students	<ul style="list-style-type: none"> * Regional high school principal * Middle school principal * Middle school math teacher * Science Dept. Chair, regional HS * 2 Elementary principals * Elementary technology specialist * Dean of Students, regional HS * District's curriculum director
		Wachusett (Suburban, regional) 7591 students	<ul style="list-style-type: none"> * District's director of operations * Principal, K-8 school * Assistant principal, K-8 school * Physics teacher (High School) * Grade 4 Teacher * Grade 6 teacher

Some comments from our participants

** "The program was successful in helping us to conduct an accurate self-analysis of where we are now with our STEM initiatives and where we want to go from here."*

** "It was eye opening to visually see what we lack and where to invest more resource"*

** "Sharing with the other districts helped me to begin to develop a better picture of what others had done and how our plan was unique to our district"*

** "Flush out our outcomes was very helpful; she helped us to clarify and define what we wanted to accomplish district wide"*

** "I feel that we can use the plan to make decisions about current and future programs"*

** "It was really helpful to collaborate with our team and to hear how other teams are approaching outcomes. Also, learning what colleges would like us to work on"*