

Location: Massachusetts (*Boston preferred*)

Start date: Summer 2018

About the organization

Mass STEM Hub, a new program being incubated by the One8 Foundation, is focused on scaling high-quality applied learning programs in Massachusetts. Our mission is to provide schools access to and support for premier STEM programs that engage students and prepare them for college and ultimately 21st century careers. Our first initiative is a statewide implementation for [Project Lead The Way](#), a premier STEM program. As a start-up, delivering on our first initiative will be critical to establishing Mass STEM Hub as the resource for K-12 schools and the valued education partner for industry.

Why STEM & applied learning?

Currently, too few schools are preparing students for college and career and even fewer are sparking a genuine interest in learning and future work. Students are bored in science, technology and math classes that lack both rigor and relevance. Yet STEM jobs are growing at twice the rate of those in non-STEM fields. This issue is urgent as American students ranked 31st among the 35 OECD member nations in math competency and 19th in science. Just one in six high school seniors who graduate are proficient in math *and* interested in STEM. Applied learning is an engaging and rigorous approach where teachers facilitate student mastery of 21st century skills like critical thinking, collaboration, perseverance, and digital literacy. Students use content to solve real world problems. Research shows that active or applied learning rather than traditional lecturing is particularly important for both academic performance and ongoing interest.

Why Project Lead The Way?

Project Lead The Way (PLTW) is a top quality program with an extensive research base that has shown its ability to improve students' interest and aptitude in STEM. It pairs the rigor and engagement needed to have a real impact for students. Mass STEM Hub's first initiative is to help grow and expand PLTW in Massachusetts and maximize its impact. While PLTW on its own is a powerful program, Mass STEM Hub is seeking to support outsized results for the students of Massachusetts by creating a rich ecosystem of students, teachers, leaders, industry partners, and the higher education community. By adding advanced training and peer learning networks for teachers, events and competitions for students, and authentic industry experiences for both students and teachers, Mass STEM Hub can expand the powerful PLTW programming beyond the four walls of the classroom.

The Role

Mass STEM Hub's Instructional Coach is an exciting opportunity for an outcomes-driven PLTW educator to impact hundreds of classrooms by working directly with PLTW teachers in schools across the state. The Instructional Coach will help teachers strengthen their instructional practice and master PLTW's activity-, project-, problem-based learning approach. Given our focus on high-quality programming for students, Mass STEM Hub seeks to provide robust support for teachers; we believe that top-notch coaching is one of the most effective development measures out there. Through co-planning, observation, modeling, and guided reflection, the Instructional Coach will support teachers as they refine and improve their instruction.

In addition to coaching at the school level, the Instructional Coach will also help define Mass STEM Hub's approach to what great teaching looks like in a PLTW classroom. Working directly with PLTW teachers across the state, the Instructional Coach will have the opportunity to codify best practices and develop not only Mass STEM's Hub approach to instruction, but also work in partnership with PLTW and Worcester Polytechnic Institute (WPI) to develop additional supports for teachers (e.g., advanced training, video resources, coaching model, school leader resources).

Responsibilities

Partners with PLTW schools in MA to coach teachers to strengthen instruction and increase student achievement

- Serves as an instructional coach for PLTW teachers to help them improve their practice and drive results for students
- Develops teachers on effective use of the Activity, Project, Problem-based Learning Approach

- Encourages use of data from interim and formal assessment to target student misunderstandings, to improve teacher practice, and to deepen students understanding and engagement with STEM
- Utilizes multiple coaching techniques (e.g., co-planning, observation, modeling, lesson debriefs, video review) to connect with teachers and drive improvement

Designs and implements the Mass STEM Hub PLTW coaching model

- Researches existing approaches to coaching to understand the effectiveness of various models
- Develops a coaching theory of action and designs a detailed coaching system
- Outlines workplan and sets benchmark targets (around teacher participation and impact measures)
- Review data to identify teachers to engage

Contributes to the creation of a strong network of Project Lead The Way schools in Massachusetts

- Forms relationships with teachers to build trust, buy-in, and commitment to continuous improvement
- Connects teachers with other teachers to facilitate best practice sharing
- Working with Mass STEM Hub's partners PLTW and WPI, designs and leads professional development sessions for groups of teachers
- Working with WPI, engages the state's cadre of mentor teachers as they plan and support teachers across the state

Helps drive Mass STEM Hub's growth. Completes special projects either to build out the organization's knowledge and/or address critical strategic needs of the start up

Qualifications

- Believes that education is a primary means to dramatically improve the life outcomes of children and that all children can achieve at high levels independent of their circumstances
- Is passionate about Mass STEM Hub's mission and values and is committed to helping us grow
- Effectively uses data to drive instruction
- Knows what excellent instructional practices look like at the classroom, grade, and school level
- Has a proven track record of results teaching Project Lead The Way, *PLTW Master Teacher preferred*
- Has prior experience managing or coaching other adults and knows how to develop and motivate others to drive results, while balancing humility and assertiveness
- Comfortable working at the elementary, middle, and high school level
- Sets ambitious goals and tenaciously pursues them
- Approaches problems with an analytical orientation, takes initiative, and solves problems
- Remains poised, persistent, and solutions-oriented in the face of unexpected challenges
- Sweats the small stuff and always aims for excellence
- Effectively communicates, in person and on paper, in a straightforward and personable manner
- Builds strong relationships and networks effectively
- Constantly reflects, relishes feedback, and seeks opportunities to improve
- Brings humor and positivity to the organization
- Able to operate in a start-up environment including building systems from scratch
- Holds a Bachelor's, Master's preferred

Application Process

Mass STEM Hub is an Equal Opportunity Employer and encourages candidates of all backgrounds to apply. All inquiries, nominations and applications are to be directed to careers@mass-stemhub.org. Applications should include a letter of interest and resume. Reminder: role is based in Massachusetts and requires travel to schools across the state.

Salary is commensurate with experience; competitive benefits package offered.

Mass STEM Hub is a program of the One8 Foundation