Massachusetts Project Lead The Way Conference

October 13, 2017 **TENTATIVE** Breakout Sessions (9-26 revised)

*Intended for ALL*

**STEM Premier: Get Connected**
As national partner of PLTW, STEM Premier is a free service to any student age 14-21 that is rostered through PLTW. Learn how students can use STEM Premier to build a comprehensive digital portfolio showcasing their talent, receive guidance, discover scholarships, and get noticed by organizations who can directly connect with them to start a conversation.

**Leveling the Playing Field: Engaging Historically Underserved Students in STEM**
Learn what successful programs do to increase female and minority student participation.

**High Quality College and Career Pathways in Massachusetts**
Massachusetts recently launched the "High Quality College and Career Pathways" initiative to significantly expand student access to high-quality career pathways with a focus on underserved populations, particularly in STEM fields. Come learn how high school PLTW programs can be a part of this exciting initiative.

*Intended for Program Administrators, but open to all*

**Project Lead The Way 101**
PLTW is a non-profit organization that engages and empowers students and teachers. Learn about the K-12 Biomedical Science, Computer Science, and Engineering Pathways.

**School Grants to Support PLTW Adoption**
Considering implementing PLTW in your school? Come learn about a grant opportunity intended to help schools add the high quality PLTW programs.
School Grants for Expanding Existing PLTW Programs
Looking to expand your PLTW program - reaching more students or adding additional offerings? Come learn about a grant opportunity intended to help schools grow and expand high quality PLTW programs.

Using the New myPLTW Interface for Program Administrators
Program administrators will learn the basics of how to effectively use the new PLTW interface for managing the curriculum and students. Explore the different support offered through the network Communities.

Hot Topic: Administrative Levers to Enhance your PLTW Program
Answer your questions, share your experiences, and brainstorm solutions to common problems that arise when trying to fit a square peg into a round hole. PLTW programs present challenges. Come and discuss these challenges and get ideas on how to address them. (e.g., final exams, scheduling, leveling).

Hot Topic: Building a K-12 Computer Science Program
Kids can do computer science at all ages! Come learn about the computer science PLTW pathway and see how to build the program in your school or district.

Hot Topic: Building a K-12 Biomedical Science Program
The Biomedical Sciences are incorporated throughout the PLTW curriculum. Come and learn how the concepts are incorporated from K-12 and how to build the program in your school or district.

High School Biomedical Science: Making it Work Well
The Biomedical Program is a rich exploration for students in becoming college and career ready. There are many connections to traditional science pathways with this program that are worthy of consideration.

Models of Engineering Implementation/Sequencing in CVTE Schools
Different models of successful implementation in Career Vocational Technical Education (CVTE) Schools will be shared. Learn how you can best integrate PLTW in your vocational program.

Launch Your Elementary Computer Science Program
What does computer science look like in grades K-5? This session provides an overview of the K-5 computer science modules and then the participants will do the Rosie Run Time activity as a hands-on, minds-on activity.
**Intended for Counselors, but open to all**

**AP+PLTW Student Recognition**
Are your high school students getting the full recognition and credit that is available when they take PLTW courses? This session describes all of the opportunities and wraps up with a Q&A.

**How Can Your Students Get College Credit for Taking PLTW Classes in High School?**
Are your high school students getting the full recognition and credit that is available when they take PLTW courses? This session describes all of the opportunities and wraps up with a Q&A.

**Intended for Teachers, but open to all**

**PLTW Teacher Networking Sessions**
Unanswered questions?? Looking for a fabulous new tip or technique to use? Curious about other parts of the program? Attend a program specific open session to meet and network with other teachers doing what you are doing.
- Launch
- Gateway
- Biomedical Sciences
- Computer Science
- Engineering

**Getting the most out of the new myPLTW Interface for Teachers**
Teachers will learn the basics of how to effectively use the new PLTW interface for managing the curriculum and students. Explore the different support offered through the network communities.

**Completely “VEXed”**
This session will explore the two types of VEX kits required for PLTW Launch. Teachers will get to experience the kits as the elementary students do.

**Hands-on Glimpse of Launch in the Classroom**
After a brief introduction to the Launch program, teachers will get an opportunity to be the “student” and work through part of a PLTW lesson.
If you build it, they will come! – Double Session

If you can build it, so can your students!! Experience the project build in PLTW Launch Robotics & Automation to see and feel the course from the “student” perspective. Can you finish the entire build?? Optional: bring your own VEX kit so that you can take your fully built robot back to your classroom.

Real world use of 3D Printers

Take the 3D printer beyond the curriculum and show students how computer generated models are useful in real world applications.

Engineering Notebooks: Paper and Pencil vs Digital

Learn the effective techniques that two middle school teachers use to have students record their projects. Get all levels of middle school students effectively documenting the engineering design process.

Group Dynamics: Setting Middle School Students up for Success!

This open discussion will focus on some of the methods and tools that can be used to help students succeed in your Gateway courses.

What’s this new Computer Science for Innovators and Makers? – Double Session

After a brief introduction to the new CSIM Gateway Unit, teachers will get to work through one of the activities.

Automation & Robotics: Getting up to Speed

Are you trying to figure out the pacing? Looking for some teaching tips to help you be as effective as possible? This Gateway session is for you.

Medical Detectives 101: Practices, Logistics, Techniques, and Workflow

Are you trying to figure out the pacing? Looking for some teaching tips to help you be as effective as possible? This Gateway session is for you.

Design & Modeling: What’s New and How to Best Implement the Update?

Are you trying to figure out the pacing? Looking for some teaching tips to help you be as effective as possible? This Gateway session is for you.

Connecting PLTW Students to Industry Through Student Events

Give your students the chance to interface with industry professionals. This session will share the exciting opportunities that are being organized by Mass STEM Hub.

Quick wins to boost End of Course Scores

Do you wish that your high school students performed better on the PLTW End of Course Exam? Come and learn some of the approaches that have proven successful.
Getting up to Speed with Introduction to Engineering Design
Are you trying to figure out the pacing? Looking for some teaching tips to help you be as effective as possible? This Engineering session is for you.

Getting up to Speed with Principles of Engineering
Are you trying to figure out the pacing? Looking for some teaching tips to help you be as effective as possible? This Engineering session is for you.

What Materials do I really need for IED and POE?!
The practicality of course materials; this session will cover what is needed and what extras are a benefit to have.

Engineering Design & Development Showcase: Getting Students Ready
Prepare your students to be able to professionally present and discuss the projects that they have been working on. The strategies and steps will be shared.

Practice, Practice: Using Vernier and Arduino Sensors – Double Session
This hands-on session will have you using the Vernier and Arduino sensors to accomplish a couple of different tasks. Looking for an opportunity to get more familiar with using these sensors? This session is for you!

Cooking the Books: Data Manipulation
Leave this session actually understanding and able to use Excel effectively. Included are some useful techniques in Excel and Google Sheets that will help save time in the classroom.