NON PROFIT ORG
US POSTAGE
PAID
BOSTON MA
PERMIT NO 50233

Museum Institute for Teaching Science (MITS)
1354 Hancock St., Ste. 302
Quincy, MA 02169

Museum Institute for Teaching Science

Computer Modeling Can Do *What*?

Meeting Your Curriculum Goals with Imagination Toolbox 2017

One-Week Summer Professional Development Institute
for Middle and High School Educators

July 31 - August 4, 2017

Providing inquiry-based, hands-on science, technology, engineering and math professional development for K-12 educators.

Computer Modeling Can Do *What*?

Meeting Your Curriculum Goals with Imagination Toolbox 2017

How can you utilize computer programming to help students achieve your curricular goals? Put the engaging power of the screen to use! Learn to program by connecting visual blocks, avoiding the need for you or your students to memorize complex textual commands. Use *StarLogo Nova's* block programming platform to create computational models or simulations.

Experience the design process as you experiment with and debug your own project. Try on the roles of navigator and driver in a paired programming team. Engage in the practices of computational thinking by breaking a problem down and developing steps to solve it; find patterns and generalize them into rules. Gain an understanding of how computer simulations or models are used to research and understand real-world phenomena by scientists and programmers and how your students can use simulations and models in the classroom.

How will your students use ***StarLogo Nova***? They could model the effects of habitat change on populations or how combustion of carbon can affect global temperatures, program a dance, create computational art, illustrate the historical spread of ideas, or bring a scene from literature to life. Across the disciplines, coding can capture your students' attention and **engage their creativity and reasoning**.

Identify ways teaching computer programming can help you **meet the state curriculum frameworks**, including the 2016 revised MA Science and Technology/Engineering Standards and the Massachusetts Digital Literacy and Computer Science Standards. Access a library of available resources to support your application of this technology in your own classroom, and plan a lesson where students will use, modify or create a programmed model or game.

Developed in collaboration with the **MIT Scheller Teacher Education Program**, this course will help you **gain confidence in your own block programming capabilities**, and you will learn strategies for actively involving students in coding in your classroom. Teachers of all subjects are welcome and will find this platform an engaging way to achieve a variety of curricular goals. **No prior experience with computer programming is necessary.**

Partners: MIT Scheller Teacher Education Program, Coyle-Cassidy School

Course Dates: July 31 - August 4 (8:30 am - 3:00 pm)

Registration Fee: $350 per participant

PDPs: 30 PDPs available

Location: Coyle-Cassidy School, Taunton, MA

No prior experience with computer programming necessary.

Visit www.mits.org for more info on this and other Professional Development Institutes and to register online.

For more information contact:

Brianna Wilkinson, Assistant Education Director

Museum Institute for Teaching Science (MITS)

617-328-1515 bwilkinson@mits.org