

AweSTEM! 2014



BOOTSTRAP
www.bootstrapworld.org

Integrating Computer Science and Algebra

Bootstrap teaches students to program their own videogames using pure algebra. Our explicit connection to algebra is unique among programming tools for beginners. In fact, **most programming tools implicitly contradict algebra** education! In addition, our materials go beyond videogames to let kids write smartphone and web apps using the same computer science skills.



Algebra is the Foundation for STEM Careers

Want to improve economic opportunities for American youth? Both algebra and computing underlie many 21st century careers, and algebra skills correlate with lifelong earnings. Yet many students disengage with math over frustrations with algebra and few schools offer meaningful computing classes. Improving K-12 algebra and computing skills are critical national challenges, yet schools face a difficult choice when allocating precious resources to math enrichment or computing.



A Full Curriculum, Aligned to the Common Core

We provide detailed lesson plans, student workbooks, online software tools, and teacher-training workshops. **All materials and software are free.** Our lesson plans are aligned to the Common Core Standards for Mathematics; we continually assess our impact on student math achievement. Bootstrap has been used in diverse settings including middle- and high-school math classes, IT/computer science classes, media classes and after-school programs. We can help tailor the program to your setting.

Thousands of students across the country (24% female, 70+% students of color, 70+% F/R lunch) have found success with Bootstrap, in urban schools and afterschool programs in New York, Boston, Chicago, Philadelphia, Washington, D.C, and many more.

We offer **school- and district-wide trainings** for professional educators, as well as **ongoing support**. We also **train volunteers** who want to teach in after-school programs.

To learn more, contact our New England coordinator at emma@bootstrapworld.org



WPI

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www.wpi.edu/+stem
stemcenter@wpi.edu
508-831-5512

