



Integrated Computing, Data Science, and AI

[Bootstrap](#) is a family of research-based curricula that teach CS, DS and AI in a way that can be integrated with **Grade 5-8 Math, Algebra 1, Algebra 2, Physics, Statistics, and Social Studies**

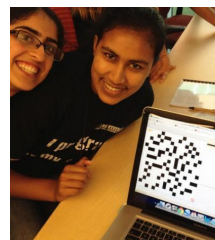
Flexible options: Not every school has money for a CS teacher or room for a CS course! Our curricula can be mixed-and-matched to form endless variations that take anywhere from 20-25 hours to a full year. Our modules build seamlessly, allowing schools to *grow their CS offerings gradually*, or dive straight into AP CS. Teachers without prior CS experience start comfortably and confidently after our highly-rated Professional Learning workshops.



Equitable access: Our introductory materials can be used in math, physics and social studies classes - not only computing classes. Because *all* students take these classes, our curriculum delivers rigorous and engaging computing to every student, not those who self-select. *Of the 45,000 students we reach every year, 46% are African-American or Latino/a, and 43% are female.*



Real Results: Algebra underlies all STEM careers. Bootstrap uses computing to help students see value and gain confidence in algebra. We assess our effectiveness using questions from state algebra exams. *Bootstrap:Algebra has been shown to significantly improve student performance on standard, pencil-and-paper algebra tasks.* Read more at BootstrapWorld.org/impact.



To offer Bootstrap, a school needs:

- **A trained teacher:** Our hands-on professional learning is consistently rated as one of the best workshops teachers have attended, and we support teachers with email, monthly virtual coaching sessions, and discussion groups; on-site visits are also possible. We welcome and encourage multiple teachers from the same school.
- **Printed materials:** Schools purchase workbooks, or can print their own from our free PDFs.
- **Minimal computer access:** Not everyone has full-time access to computers! Our materials use a pedagogically-designed physical workbook, supporting teachers with limited computer access.
- **Web access:** There's *nothing to install*; everything runs on the Web. It works on Chromebooks, laptops, and desktops, and has support for the visually-impaired.

For more information, write to contact@BootstrapWorld.org

Bootstrap is a fiscally sponsored project of [Community Initiatives](#). We collaborate with faculty at several of the leading universities in computer science, including Brown University and the University of California San Diego.