



BOOTSTRAP

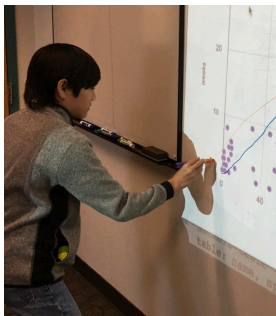
Introduction to Data Science

Bootstrap:Data Science is a curricular module for students ages 12-16, which teaches students to answer real-world questions using data analysis.



Data Science is a Must-Have 21st Century Skill

In a world awash in big data, being able to *make sense* of that data is a critical skill for everything from public policy to molecular biology, and from software development to shipping logistics. Writing code to crunch huge datasets is great, but pure coding must go hand in hand with being able to think, talk and write about the analysis. With job openings far outstripping supply, it is crucial that students are exposed to data science in middle and high school.



Students are Natural Data Scientists

Even children who “hate math” avidly gather and analyze data about their favorite sports teams, musicians or TV game shows. Students care deeply about whether a certain policy is biased. Furthermore, a foundation in data analysis is important both for numerous later subjects of study (beyond computer science, from business to biostatistics to archeology to sociology) and for creating an educated citizenry. Our plan is to channel students’ inherent passions to motivate learning.



The Infrastructure is Already There

From examining sales data to investigating the role of the electoral college, students are already exposed to the idea of data as a vehicle for making sense of the world through courses in Business, Statistics, and Social Studies. Our *Bootstrap:Data Science* module is designed to integrate into these courses, providing a smooth on-ramp for teachers to *build on the curriculum they already have*, integrating authentic data science without having to find room in the budget for a new teacher, or room in the schedule for a new class.

To see our materials, research, and evaluation results, find an upcoming PD workshop, or learn more, visit www.bootstrapworld.org or e-mail us at contact@bootstrapworld.org.