littleBits education

CASE STUDY

LITTLEBITS INVENTION LAB
NEW MILFORD HIGH SCHOOL, NEW JERSEY

9TH - 12TH GRADES

Laura Fleming **LIBRARY MEDIA SPECIALIST**
Eric Sheninger **FORMER PRINCIPAL**

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CONTEXT

New Milford High School has an innovative culture and had a makerspace in place when Laura Fleming discovered littleBits at an educator event at the Brooklyn Public Library. She saw how easy the Bits were to use and how engaged the students were and decided to bring them to her school, with her administration's enthusiastic support.

PROGRAM

Laura integrated littleBits into the school's library makerspace for both self-directed and teacher-led learning. Because of the popularity of the Bits, she has built a permanent "littleBits bar" in the makerspace, and she reports active informal learning happening with the Bits on a daily basis. Many of her students have taken it upon themselves to spend their nights and weekends continuing to learn about concepts they were introduced to with littleBits, and then have come into the school excited about this learning and eager to share it with their teachers and peers. In Laura's words, "Since implementing littleBits into my library program, I have seen the library transform into a vibrant place for self-directed learning."

In an example of teacher-led learning, a physics teacher brought his students to the makerspace for some hands-on experiences related to their electronics unit. Prior to their visit, students had worked with a circuit simulator tool, which allowed them to explore current flows through light bulbs in circuits powered by batteries and controlled by switches, but their understanding was abstract and not grounded in real-world conditions. Once in the makerspace, students built littleBits circuits that rotated paper hands and created light-up shoes, troubleshooting when their inventions didn't work quite as they planned. As an assessment at the end of the activity, students created an 'exit slip' in which they had to diagram and explain the flow of electricity through the circuit in their littleBits invention.

LITTLEBITS INVENTION LAB INCLUDES

- 1 Pro Library
- 2 Space Kits
- 2 Synth Kits
- 2 Deluxe Kits
- 2 Craft Packs
- 1 free PD seat