

littleBits™ **education**

PORT JERVIS CITY SCHOOL DISTRICT FIGHTS ABSENTEEISM WITH LITTLEBITS

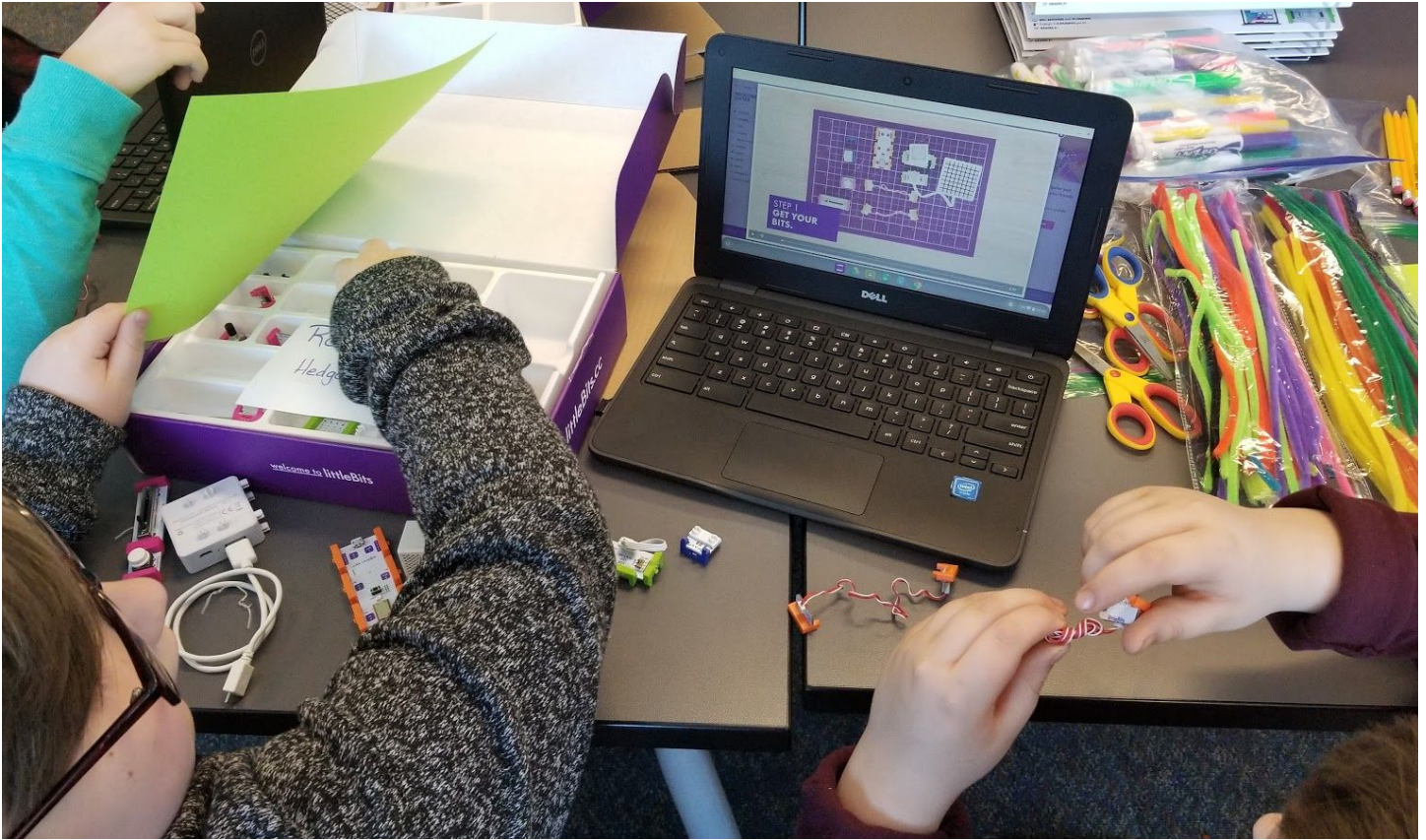
EFFECTIVELY ONBOARDING EDUCATORS AND STUDENTS IMPROVES MEASURABLE OUTCOMES

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In January, over 500 K-12 administrators, teachers, and related staff from 30 districts in New York filed into Port Jervis High School for a summit on the power of educational technology. The state's educators were there to learn from Port Jervis City School District, which has become a lighthouse for effective solutions and an example of an impressive turnaround.

Starting in September, Port Jervis High School's absentee rate, alone, fell by five percent -- just one number that points to soaring engagement in the district. According to administrators, the improvements resulted from a strategic investment by the district in technological literacy, workforce development, and a curriculum that truly connected students to their lives and futures.

littleBits played a critical role by providing a versatile, inclusive curriculum and tool that was accessible to teachers and deeply engaging to students. Nick Pantaleone, Assistant Superintendent for Instruction said, “We needed to create a space to get kids excited about learning and that’s what littleBits helped us do.”

Engaging Students with Vibrant Makerspaces

littleBits started in Port Jervis as the solution to absentee rates.



Administrators decided to tackle the issue by building vibrant makerspaces and project-based learning opportunities that would attract students to school and connect their education to the real world.

They invited littleBits to present to a group of students, educators, librarians, and administrators during the summer. By the end of the one-hour session, every stakeholder in the meeting was hooked by the ease with which littleBits allowed them to create dynamic, real-world inventions. Many had engineered their own creations during the meeting and fell in love with how quickly the Bits sparked hands-on making.

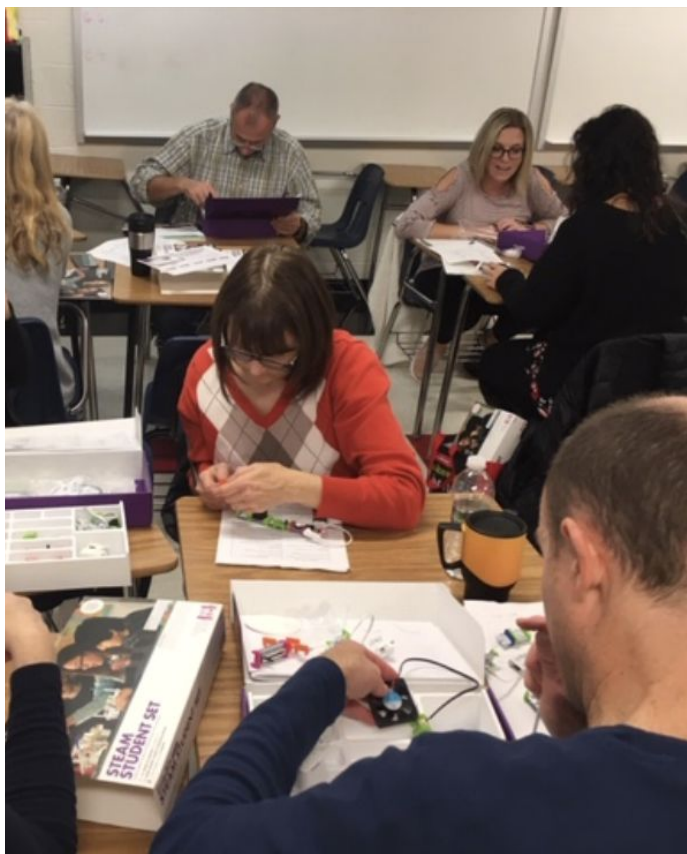
The district chose to invest in a Pro Library for each building, as well as Code Kits to teach elementary computer science and coding in a classroom setting.

“An interesting thing occurs when introducing students to littleBits for the first time. They first seek ‘guidance’ as they historically were taught to do. The moment they realize they can take full ownership and command of their experiences, they light up. The focus quickly shifts from hesitance to full-blown discovery and excitement. It isn’t long before they’re bursting at the seams to broadcast what they’ve made. Best of all, they begin to wonder what they are capable of doing.”

K. Agard-Thomassine, *Technology Teacher, Grades 7 - 8*

Getting Buy-In from Educators

Before the district could get students to jump in, it had to make sure its teachers were comfortable with littleBits so they could fully take advantage of littleBits' cross-curricular versatility.



littleBits circuits are designed to look like a kid-friendly version of the circuits inside a computer.

That raw feel, as well as the concept of computer science, is of benefit to students who want to tackle real-world problems -- but it can be daunting to time-crunched teachers who are unused to thinking of themselves as STEAM and coding educators.

The district introduced Tinker Tuesdays where instructional coaches modeled successful usage of littleBits in the classroom. They also put tutorials and tips in Google Classroom. These resources showed littleBits to be a deceptively simple tool that demystified circuitry and coding and could be quickly adopted by educators.

Once teachers were over this small hump, they were able to introduce student-centered learning opportunities and guide students through the process of open-ended technological exploration.

The Impact: Students are Not Afraid to Fail

littleBits' impact was immediate; by winter break, it was apparent that the program was a smashing success. The Bits helped the district introduce a culture of teamwork and collaboration where students worked together to tackle issues head-on.

“littleBits leads to better communication and problem-solving -- a culture where students are not afraid to fail.”

Nicholas Pantaleone, *Assistant Superintendent for Instruction*

During in-school suspensions, teachers use Bits to engage students with behavioral issues, which improves their performance when they return to the classroom.

The district also started an after-school maker program that is so popular that it has a sizable waitlist. The result is an extended school day for 200 students who are now engaged in powerful activities after the official school day ends, putting them on the right path in countless ways.

According to Pantaleone, the most powerful effect of littleBits is to create a culture where students want to go to school. “We’re educating them, supporting them, and nurturing them. They want to be here!” says Pantaleone.

“We began by introducing littleBits in more formal, scaffolded lessons with our third graders. We quickly found out that the ‘real learning’ began when we let the students plan, experiment, make prototypes, remix, and create on their own.”

Maura Brady-Wilson and Victoria Becker, Teachers, Grade 3

Brady-Wilson and Becker describe how their students eagerly work cooperatively take ownership of their projects: “Our class is an integrated one in which fifty percent of the population are classified special education students. When working with the littleBits it is impossible to tell who is who as they all bring their unique skills and talents to the table.”

The students make connections, have great successes, and equally important, they learn to fail. This teaches them perseverance as they often must rework and “remix” their projects to achieve success. The teachers have said, “The students love littleBits and beg us to plan more activities with them!”

