CASE STUDY

MAKING LITTLEBITS A PART OF THE CURRICULUM

HOW ONE TECHNOLOGY INTEGRATION SPECIALIST IS BRINGING STEAM TO NATHANIEL MORTON ELEMENTARY SCHOOL, ONE EDUCATOR AT A TIME
Carmella Hughes was a classroom teacher for more than 30 years before she took on a new role five years ago -- that of a technology integration specialist.

As a technology integration specialist, Carmella works with just under 600 students for one hour every other week, introducing them to new technology and ideas via Nathaniel Morton Elementary School’s makerspace (currently housed in the school’s computer lab). She also helps other educators and administrators through coaching and professional development. In 2015, she wrote a grant for funds to help her build out Nathaniel Morton’s STEAM program.

“I’ve always been the go-to tech person in our building. And in addition to my personal interests, I’m constantly on the lookout for new and exciting ways to expose our students to technology, problem-solving, and critical thinking.”

– Carmella Hughes, Technology Integration Specialist
Carmella’s goal was to help her students become more familiar with mobile devices, computers, programming, and other types of technology so that she could have an even bigger impact on how they learn, problem-solve, and collaborate. Carmella understands that these skills are the ones necessary for her students to become technology-literate in the future of work.

In 2016, Carmella received the funds she requested from the grant and she immediately invested in the beginning of a makerspace for her students. That’s when she first became familiar with littleBits, which she has since incorporated into her work with grades four and five.

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– Carmella Hughes, Technology Integration Specialist

FIGHTING TO INTEGRATE TECHNOLOGY INTO THE CLASSROOMS

But as much as Carmella was enjoying littleBits and the other technology tools she had procured for her school’s coding and engineering program, she sensed some hesitance from the classroom teachers at her school.

It’s difficult to incorporate new technology into the classroom when it is not yet a designated part of the curriculum. Said Carmella, ”Teachers are hesitant to embrace something new – especially if they feel like it will be a major lift for them to learn it or teach it.”

For new technology to be effective in a makerspace, it needs to be used on a more consistent basis in other spaces, as well. Carmella envisions a future where the idea of a classroom shifts into a workshop-oriented model, where technology is organized into centers and students are empowered to explore it at their own pace for specific periods of time.
“Kids need access to hands-on learning, and a makerspace may be the best place for them to gain that experience. But I tend to think that a makerspace is just a piece of a larger puzzle. What we really need to develop is a ‘maker mind.’ That’s this mentality that kids can create, build, and problem-solve anywhere.”

– Carmella Hughes, Technology Integration Specialist