

KNOWATOM SNAPSHOT: Transforming Urban Classrooms

Lynn Public Schools

LYNN, Mass.—Lynn Public Schools faces all of the challenges of an urban school district. Fifty four percent of its students speak English as a second language, 83 percent are low income and 86 percent are high needs. Lynn is also one of a few cities nationwide that serves as a refugee relocation point for the United Nations.

And yet it has become the leading STEM performer among the 26 largest cities in Massachusetts. In 2013, 87 percent of the district's schools posted gains in student proficiency. Independently, the increase in student and teacher interest has spawned afterschool robotics clubs and participation in national science competitions. Nationally, students at the Brickett School won the Disney Planet Challenge, while their peers at Lynn-Woods won the Siemens "We can Change the World" challenge. More broadly, students are learning why science is important to them. "I love science because we get to learn while we build some great things," said Alessandra, a first grade student in Lynn.



These noteworthy achievements can be traced back to Lynn Public School's partnership with KnowAtom, which began in 2009. With that partnership, the school district acknowledged the importance of STEM education and developing students as scientific thinkers. "KnowAtom has reenergized our science instruction in elementary schools," said Sue Rowe, deputy superintendent of Lynn Public Schools.

When Lynn Public Schools first reached out to KnowAtom, it wanted to address issues of alignment, district size, student transience, professional development and materials logistics. With KnowAtom, when students leave one school and enter another, they don't face gaps in instruction. Educators don't spend their time and money looking for resources to teach science. And students aren't *learning about* science—they are *becoming* scientists and engineers. This approach has proven results. "We went from 36 percent in the advanced and proficient category in MCAS scores in 2009 without KnowAtom to 87 percent in the advanced and proficient category in MCAS scores in 2012," said Helen Mihos, principal of the Lincoln Thomson School. "That's a dramatic impact."

Ellen Fritz, principal of Lynn Woods, agrees: "KnowAtom is an educational endeavor that does take time and energy, but it's an investment that we can't afford to skip," Fritz said. "Twenty years from now, these children are going to say, 'I really started to love science in third grade.' KnowAtom is going to leave a strong academic impression."