

Adding More STEM to the School Day

BY DEBRA SHAPIRO | PUBLISHED: FEBRUARY 2, 2016



Middle school students dissect a frog as part of a hands-on lesson from Science from Scientists, an in-school enrichment program in Massachusetts and California. (Photo by Arturo Martinez)

Schools seeking to enhance students' learning of science, technology, engineering, and math (STEM) are adopting in-school STEM enrichment programs that reach student populations in need of additional learning opportunities, connect students with scientists, and/or provide more challenging curriculum. One such program, Science from Scientists (SfS), was established in 2002 "to help teachers with challenges in

presenting science content," says Erika Ebbel Angle, SfS founder and executive director. "Some teachers may have taken only one science course, or [find that] students need more science for test preparation," she observes. "Teachers have told us that the only way to reach all of their students is through an in-school program."

SfS offers an In-School Module-Based STEM enrichment program that brings two scientists to grades 4–8 classrooms every other week during the school year "to work with teachers and bring content [that supports] the NGSS [Next Generation Science Standards] and MCAS [Massachusetts Comprehensive Assessment System]," explains Angle.

Teachers can choose from more than 85 hands-on STEM lessons, and the scientists "bring the necessary materials with them."

The program aims "to inspire students and improve both attitudes and aptitudes," she notes. The scientists conduct "pre- and post-assessments every other week" to chart students' progress, she relates.

"The program succeeds because teachers see us as a great resource to bolster their curriculum and let students interact with scientists as role models," Angle contends. While SfS "isn't genderspecific," it exposes boys and girls to female role models, she notes.

SfS has been adopted by 46 schools in Massachusetts and California, and "many districts seek us out," she notes. Assessments have shown that "SfS raises standardized test scores by an average of 25% in our partner schools," she reports.

SfS is provided free to public schools during the first two years. (Private schools must pay for the entire program.) During year three, public schools start bearing the program's costs. SfS "can help schools get grants and offers fundraising ideas," says Angle. The goal for year four is "to have the program be self-funded in districts where we have relationships," she explains, but SfS can help with funding if a district isn't able to cover all the costs. "If we have classroom teachers who want us, we are committed," she maintains.

This article originally appeared in the February 2016 issue of NSTA Reports, the member newspaper of the National Science Teachers Association. Each month, NSTA members receive NSTA Reports featuring news on science education, the association, and more.

Read the full blog article at:
<http://nstacommunities.org/blog/2016/02/02/adding-more-stem-to-the-school-day/>

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An Import From Israel

"Twelve years ago, we were looking for out-of-the-box-type science improvement programs for Jewish day schools in the United States," recalls Judy

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