

SCIENCE
FROM SCIENTISTS

2016 Annual Report

SEPTEMBER 1, 2015 – AUGUST 31, 2016

Letter from the Founder

A Year of Growth!

The 2015-16 year has been one of our most pivotal in history! With this year we have elevated ourselves from being a predominantly regional organization, to a National one. We came forward “full-force” with plans to further strengthen our infrastructure, training systems, quality control, HR, and fundraising initiatives. With a budget that was a 47% increase over our 2014-15 budget, it became necessary to formalize our development practices further. This year we were able to start beginning to address these many operational necessities as the organization has scaled. I continue to be extremely fortunate to be working with such an outstanding team of individuals at this critical moment in Science from Scientists’ history.

We began the year with huge growth, adding nearly 20 schools to our list of program partners. This was made possible by our transition into our “alpha” version of our “fund local” initiative (where schools and districts help to pay the cost of the program). More than 80% of eligible schools participated in fund local. More than 250K of funding came from school sources, validating that schools and districts believe in the value of our programs. Additionally, we were fortunate to find more instructors than usual (one of our traditional rate limiting steps in growth). We hit the ground running in September with 46 school partners and more than 50 staff. As such we were able to pull many schools off of our wait-list. Something we are very proud of.

We continue to work with our partner classroom teachers, further honing our ability to integrate our content into traditional STEM curricula. The feedback from teachers has been resoundingly positive, with more than 90% of teachers requesting us back year after year. Repeatedly we are told that, Science from Scientists has built a model that integrates into classroom curricula, works in partnership with classroom teachers that is mutually beneficial, and continues to demonstrate large gains in assisting students to improve their attitudes and aptitudes in STEM. This year for MA schools in our program, Science, Technology, and Engineering (STE)

MCAS scores went up by an average 14%. We continue to be proud of this accomplishment.

Additionally, we worked on building out our two “new” offices in the San Francisco Bay Area and in Worcester, MA. We were able add additional schools in both regions this year, responding to numerous requests.

SfS continues to become more widely known in the STEM education space. With the help of our PR firm Fleishman Hillard, we were featured on NPR twice, were on the cover of the National Science Teacher’s Association Magazine in February of 2016, were in Cosmopolitan Magazine early in the year, and were interviewed by other TV news channels, newspapers and magazines over the course of the year. This recognition spurred requests for our program from Hawaii to Maine.

As we move into the 2016-17 school year, we continue working on our greatest challenges, which include addressing our need to find a consistent source of qualified and capable staff to be able to address the growing number of requests from schools in our office locations, increase our fundraising capacity, and further refine our “fund local” scaling strategy.

Thank you so much as always to our donors and supporters for your financial contributions and belief in us. None of this would have been possible without your involvement.

Thank you to the fabulous staff for your outstanding efforts. You make STEM come alive and bring to students an experience that may be the only science they see.



Erika Ebbel Angle
Founder and Executive Director





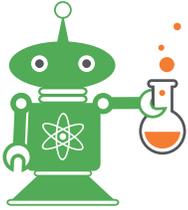
2016 Annual Report

September 1, 2015 – August 31, 2016

Science from Scientists' core In-School Module-Based STEM Enrichment program is celebrating its 11th year! In this program, we send real, charismatic scientists into schools to deliver engaging, hands-on lessons in STEM with the goal of improving 4th-8th grade students' attitudes and aptitudes in STEM. Students participating in our programming improve their understanding of scientific concepts in addition to developing 21st-century skills (such as collaboration, critical thinking, and technology literacy) that are transferable to any subject. Focusing efforts on increasing STEM literacy amongst elementary and middle school students will encourage passionate, competent individuals to pursue careers in STEM and progress through the STEM workforce pipeline, helping the U.S. to improve its global competitiveness in STEM.

	AY 13-14	AY 14-15	AY 15-16
Number of Schools	25	29	46
Number of Districts	13	14	24
Number of Students	2500	3000	5000
Number of Teachers	65	100	200
Number of Instructors	22	20	50





SCIENCE FROM SCIENTISTS

Program Recipients

Science from Scientists currently delivers programming to the following schools:

Massachusetts Schools

BOSTON

Lilla G. Frederick Pilot
Middle School (2011–present)

Dr. William W. Henderson
Elementary School
(2013–present)

McKay K-8 School
(2015–present)

James Otis Elementary School
East (2012–present)

Sacred Heart School
(2014–present)

James P. Timility Middle School
(2015–present)

Maurice J. Tobin K-8 School
(2014–present)

Warren–Prescott K–8 School
(2012–present)

BOXFORD

Spofford Pond
Elementary School Boxford
(2015–present)

CHELSEA

Browne Middle School
(2015–present)

Clark Avenue Middle School
(2015–present)

Wright Science & Tech Academy
(2015–present)

EASTON

Easton Middle School
(2015–present)

EVERETT

Lafayette School
(2006–2011, 2012–present)

HAMILTON-WENHAM

Miles River Middle School
(2015–present)

HAVERHILL

Tilton Elementary School
(2015–present)

LAWRENCE

South Lawrence East
Middle School
(2015–present)

LEICESTER

Leicester Memorial School
(2015–present)

LYNN

Washington STEM Academy
(2015–present)

MALDEN

Linden STEAM Academy
(Spring 2013–present)

MARBLEHEAD

Cohen Hillel Academy
(2005–present)

MILTON

Collicot Elementary School
(2014–present)

Cunningham Elementary School
(2014–present)

Glover Elementary School
(2014–present)

Tucker Elementary School
(2014–present)

NEWTON

Oak Hill Middle School
(2010–present)

PEABODY

Thomas Carroll School
(2015–present)

PLAINVILLE

Beatrice H Wood Elementary
School (2013–present)

REVERE

Beachmont Veterans Memorial
School (2007–present)

Garfield Elementary School
(2015–present)

Staff Sergeant James J. Hill
Elementary School
(2006–present)

Abraham Lincoln School Revere
(2006–2011, 2012–present)

Paul Revere Innovation School
(2014–present)

A.C. Whelan Elementary School
(2007–present)

WEYMOUTH

Lawrence W. Pingree Elementary
School (2013–present)

WINCHESTER

McCall Middle School
(2010–present)

WINTHROP

Arthur T. Cummings Elementary
School (2013–present)

WORCESTER

Burncoat Elementary
Preparatory School
(2015–present)

Chandler Magnet School
(2015–present)

California Schools

SAN MATEO

Bayside STEM Academy
(2014–present)

REDWOOD CITY

Clifford School
(2015–present)

MOUNTIAN VIEW

Khan Laboratory School
(2015–present)

BRISBANE

Lipman Middle School
(2014–present)

Updated September 23, 2015

Over
5,000
students total!



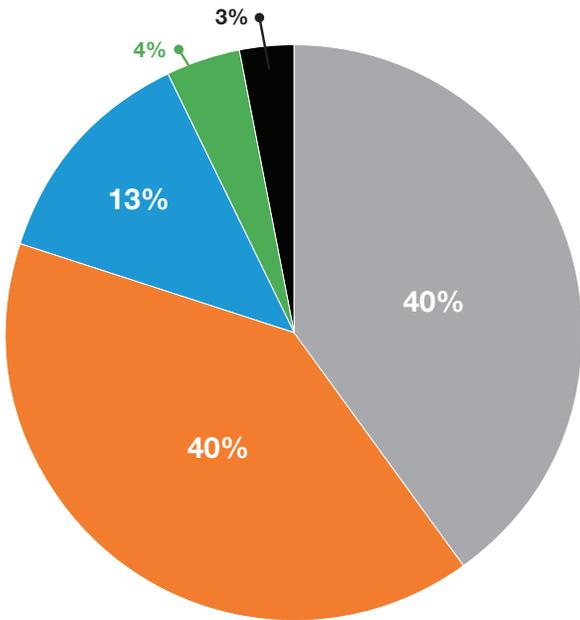
Student Demographics

Science from Scientists offers our core program during school so that we can provide the opportunity to succeed in STEM to every student in the classroom. Our multi-touch model (~18 total sessions) allows students to build long-lasting relationships with our scientist instructors.

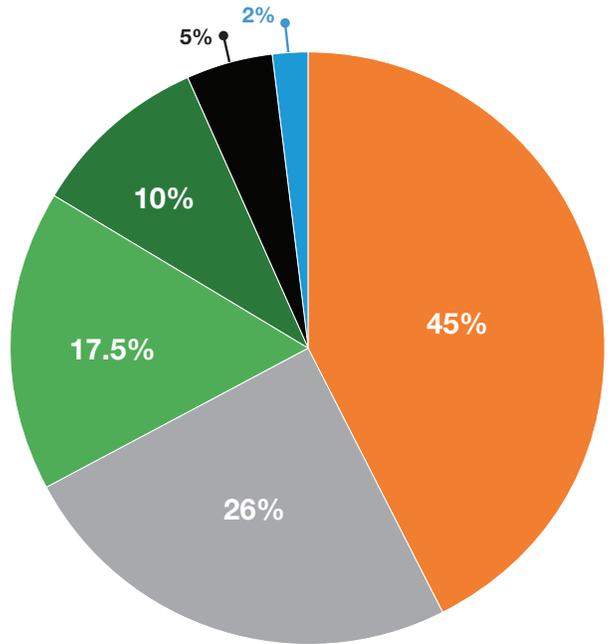
LEGEND

- Hispanic
- Caucasian
- Asian
- African American
- Hawaiian/Pacific Islander
- Multit Race

Massachusetts Demographics



California Demographics



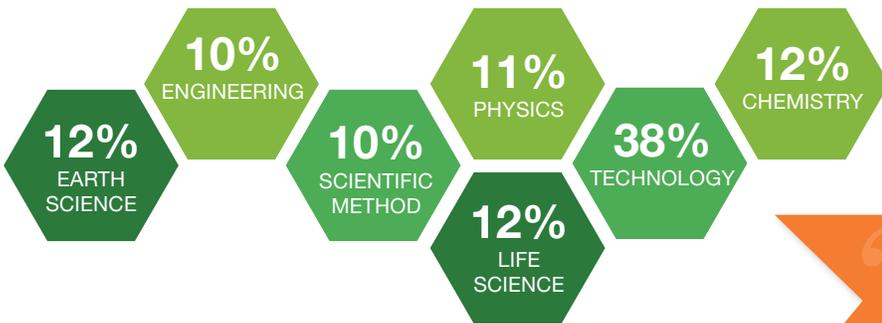
Impact

MCAS SCORES

For the 2015-16 school year, SfS observed an average 14% improvement in the number of students scoring Proficient/Advanced on the 5th-grade STE MCAS. For schools performing below the state average, the average percentage increase in STE MCAS scores after the ISMB program was 22%.

IMPROVEMENT IN QUIZ SCORES

During the 2015-16 academic year, SfS collected quiz results that demonstrated the following percent improvements from pre- to post- quiz by subject area:



10%
is equivalent to a letter grade improvement



“We would like to see this program back again next year! It was highly effective, and the students loved it!”
-TEACHER, DONOVAN SCHOOL

TEACHER SURVEY FEEDBACK

90% of teachers surveyed indicated the SfS program has been **‘very influential’** on students’ interest towards science.



“I commend SfS for their communication and commitment to science instruction. Thank you for challenging them but keeping the conceptual information malleable. The program is high quality and provides the opportunity to work with real science instruments and materials that we could never afford to provide. They were very fortunate children to be blessed with this caliber of exposure to the wonderful world of science. Thank you so very much. Truly, an educator’s dream come true!”
- TEACHER, THOMAS CARROLL SCHOOL

PEAR* INTREST SURVEY

82%
of students reported feeling more interested in science-related careers



87%
of students reported improvements in their perseverance and critical thinking skills



85%
of students reported improvements in their relationships with their peers and adults as a result of participating in our program



Additionally, the PEAR assessment ranked **SfS atop the list** in positive outcomes in the above areas amongst the 28 different programs that participated in the study.



*PEAR (Program in Education, Afterschool, and Resiliency), is a joint initiative by Harvard University and McLean Hospital that is designed to assess the quality of STEM learning opportunities and how they affect student interest in STEM.

Start Spreading the News!



INNOVATION HUB

Science from Scientists

by Annie Chernich
February 12, 2016



Students learning through classroom experiments. Credit: WoodleyWonderWorks / Flickr Creative Commons



Published in
TAKEAWAY
The Takeaway

Classroom Collision: This Program Gets Scientists to Teach Kids Science

▶ Listen 8 min + Queue



February 2016 Vol. 27 No. 6

NSTA Reports

National Science Teachers Association



Teaching STEM
Through Astronomy's Lens pg 6

Adding More STEM to the School Day

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, www.sciencefromscientists.org), 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."



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.

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 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 gender-specific," 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 29% 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.

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
See Enrichment, pg 5

CREATING LEARNING OPPORTUNITIES AROUND THREATENED FRAGILE WONDERS PG 3

telegram.com

WORCESTER, MASSACHUSETTS

Science from Scientists engages Burncoat Prep students in Worcester

COMMENT 0



From left, fifth-graders Ethan Falvey, Lillynah Rose, Abolfazl Mojahed, Kiana Rodriguez, Daneishka Gutierrez, Flavia Familia, Success Whyte, Evan Wini, Giovanni Davila, Ragey Abdikadir, Jorge Rosario and Diantae Poole with their teacher Lisa Dupuis participated in the Science from Scientists program at Burncoat Preparatory School on June 7. T&G Staff/Christine Hochkeppel

By Amanda Roberge
Correspondent
Posted Jun. 10, 2016 at 6:00 AM

WORCESTER - Whether examining the properties of dry ice or dissecting owl pellets, science is one of those disciplines that lends itself to hands-on learning.

The fifth-grade students at Burncoat Preparatory School understand this more than anyone, having been fortunate to have had some special guests in their classrooms twice per month this school year.

Two scientists - including Dr. Don Gammon, a virologist engaged in postdoctoral research at UMass Medical School - have been bringing the Science From Scientists curriculum to the students in hopes of not only teaching to existing standards within the curriculum, but also to spark a lifelong love for science.

"They get really excited on the days when Science From Scientists is coming," said teacher Emily Galante. "They are always looking forward to seeing what tricks they have up their sleeves."

Science from Scientists was founded by Dr. Erika Ebbel Angle, an MIT graduate with a doctorate in biochemistry from Boston University School of Medicine, in 2002 and successfully drew attention to the newly formed 501c(3) nonprofit as her platform during her winning bid for Miss Massachusetts in 2004.

While the early years offered a smaller scope in experiments and lessons, one of the developments in the past decade has been the way teachers and scientists work symbiotically to create lessons that will enhance students' understanding of concepts that are part of the core curriculum.



HALL AT PATRIOTS PLACE SCIENCE THEATRE PERFORMANCE

In addition to our core during-school program, Science from Scientists has brought outreach activities including vacation programs, science theatre, the Boston Regional Science Fair, and other smaller events to communities around the US.

Andrews Gazette

New Center of Innovation offers fun, STEM exposure to JBA kids

By Bobby Jones Staff Photojournalist Jul 1, 2016



Bobby Jones

From left to right: Jim Clark, Boys and Girls Club of America president and CEO, Tom Kennedy, Raytheon chairman and CEO, Desha Jenkins, Andrews Revolution Keystone Club president and teen volunteer, Col. Bradley Hoagland, 11th Wing and Joint Base commander and Vince Yure, 11th Support Squadron Youth Programs director, participate in a ribbon cutting ceremony to open the first Center of Innovation at a U.S. military base facility June 24.



Olivia Seidel, 8, and her friend, Cameron Baldwin 9, experienced loosely piloting a Zorb ball around the Joint base Andrews Youth Center gymnasium – and had a lot of fun – during the grand opening of its Center of innovation June 24 on Joint Base Andrews.



CAMPBIO - WEEK 3



SAN MATEO STEM EXPO



Stories from this year

BY JENNA CONVERSANO

I joined Science from Science in January 2015 and am now a full-time instructor (at 6 partner schools), in addition to be a member of the Module team. I enjoy teaching at many schools during the school year, but have developed a special place in my heart for my first school, the Garfield Elementary school in Revere, where I first taught as a nervous ‘shadow’ instructor.

Part of what I really love about the partnership we have at this school is that we, as instructors, as well as the program itself, are really valued by the classroom teachers for bringing the excitement of STEM into their school. The 5th-grade students are always enthusiastic and participate in all of the activities. Even on the most rowdy of days, we are able to have the attention and focus of the students, in exchange for another demonstration of chemical energy conversion, by burning up flash paper! The students LOVED this lesson.

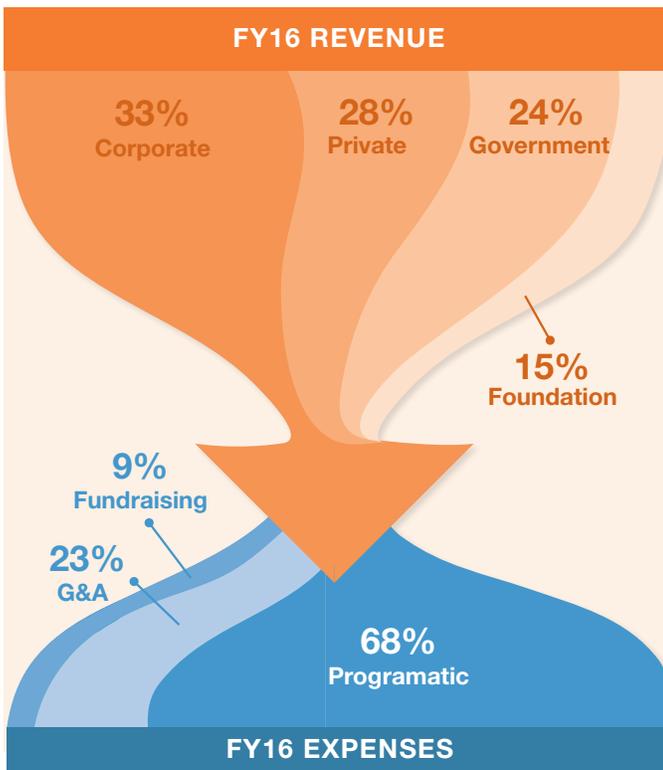
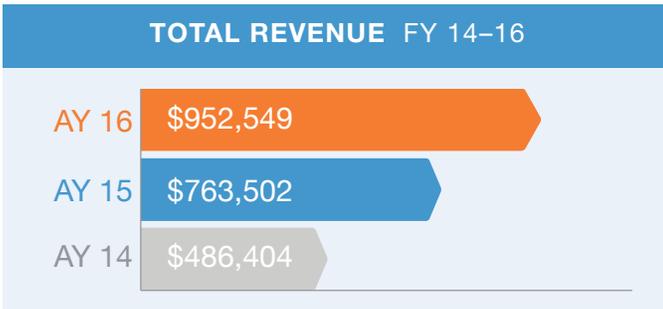
While I had the opportunity to teach in other schools during the spring semester, I did not turn down the opportunity to return to Garfield as a substitute instructor for the last two lessons of the year, including one of my favorite lessons: Owls! It was heartwarming to see that the students remembered me and were so excited that “Ms. Jenna” had returned. I

“Part of what I really love about the partnership we have at this school is that we, as instructors, as well as the program itself, are really valued by the classroom teachers for bringing the excitement of STEM into their school.”

was happy to spend more time with this wonderful group of students and see how they had grown and matured over the last few months. Within the lesson, the students loved getting to dissect the owl pellets and examine what was inside (after they got over their initial heebie-jeebies about them). In my last class of the day, I was helping a pair of English as a Second Language (ESL) students dissect their pellet. They were a little timid about cracking it open, so I assisted them with the task. Once opened, the students uncovered an entire bird skull inside their pellet! I have taught this lesson many times and was very surprised to see the entire skull intact inside the pellet, and was swept up in the students’ excitement. The students proudly showed off their rare bird skull to the rest of the class. From this lesson alone, I know that we will have a couple of primed scientists ready for more scientific discovery in their futures!

I am looking forward to starting the 2016-17 academic year with a new batch of classroom teachers and students. As a module writer, I look forward to seeing what new and STEM-spiring lessons we can bring into our schools, and provoke the same level of excitement as I saw over the owl pellets at Garfield!

Financial Overview



PARTNER SCHOOLS AND DISTRICTS

Over the past few years, our partner schools and districts have been contributing to the cost of the program at their school, therefore leveraging our fundraising dollars to scaling our program to new schools.



86% of eligible schools contributed to the cost of the program at their school.

In total, **\$316,000** was raised by fundraising efforts initiated by our schools.



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Thank You Supporters

We would like to sincerely thank all our supporters that made this year successful. Some of our largest supporters are featured here. Please refer to our current [donor list](#) for our full list of supporters.

