

SCIENCE

FROM SCIENTISTS

"The SfS program has brought science alive for my students. It has provided the realization that perhaps, they too can aspire to an occupation in science. It has encouraged them to dream BIG!"



AN AWARD-WINNING NONPROFIT



Pinnacle Award



\$100Kfor100 Grant



Hologic Award



100 Ways Grant



@Scale Award

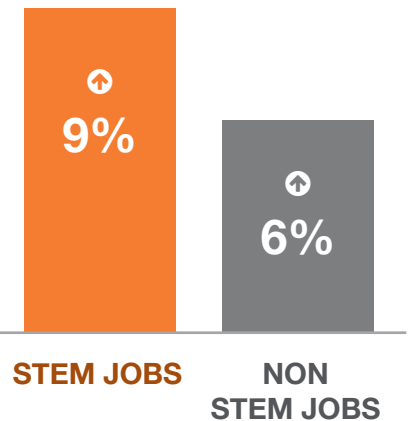


THE U.S. IS BEHIND

THE STEM WORKFORCE CRISIS

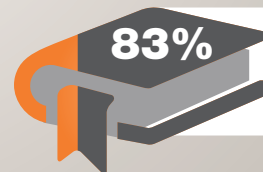
The U.S. is facing a crisis in the STEM (Science, Technology, Engineering, Mathematics) workforce training pipeline. **STEM job opportunities are projected to grow 50% faster than non-STEM jobs** by 2024; yet the U.S. is simply not producing enough candidates to fill them.

2014–2024 Projected Employment Growth



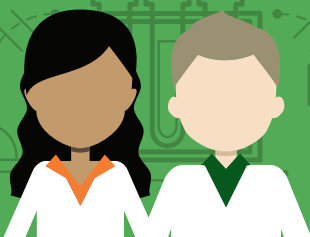
THE STEM EDUCATION CRISIS

The Business Higher Education Foundation determined that by the time students reach high school, **83% report lacking proficiency and/or interest in STEM**. Thus, the STEM challenges must be addressed earlier, in elementary and middle school, where gaps in STEM content competency and interest begin.



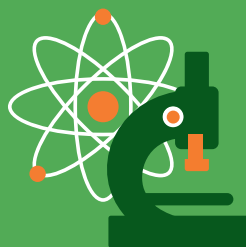
of students are **NOT** proficient in STEM

OUR SOLUTION IS UNIQUE



Real Scientists

Our staff members are charismatic, passionate role models with strong academic backgrounds and/or demonstrable research experience in STEM.



Hands-On Experiences

We provide discovery-based, curriculum-relevant, and exciting hands-on STEM activities designed to engage students and ignite their interest in STEM.



Expansive Reach

We bring STEM to every space by delivering our programs during school, after school, over vacation, and for special events.



Measurable Impact

Our programs have shown measurable impact, from raising standardized test scores to improving students' attitudes towards future careers in STEM.

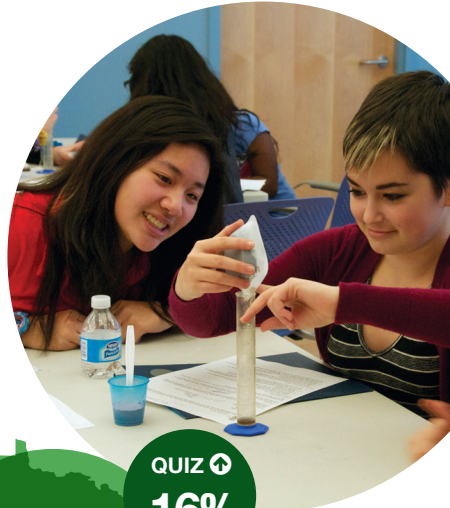


IN-SCHOOL PROGRAMS

In-School Module-Based (ISMB) STEM Enrichment Program



SfS sends real, charismatic scientists into classrooms every other week to lead students through discovery-focused, experiential lessons throughout the entire school year. This program serves elementary and middle schools (grades 3-8.) All lessons are informed by the Next Generation Science Standards (NGSS) and the local state standards.



77
SCHOOLS

OVER
90
TOPICS

9,300
STUDENTS

Aptitude Towards Science

QUIZ ↑
14%

MASSACHUSETTS

MCAS ↑
19%

QUIZ ↑
23%

CALIFORNIA

QUIZ ↑
16%

MINNESOTA

MCA ↑
6%

We measure our program success by tracking student scores on the state science assessments and administering pre- and post-lesson quizzes.

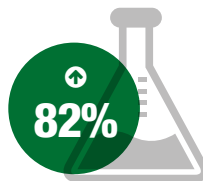
Attitude Towards Science



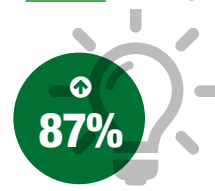
THIRD PARTY EVALUATION



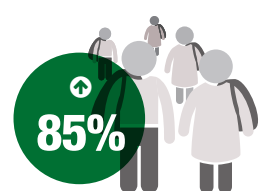
90% of teachers surveyed reported that our program improves students' competency in science.



Increase in Science Career Interest



Increase in Perseverance & Critical Thinking



Adult and peer relationship building

Student Surveys

Scientist-Teacher Partnership (STP)

SfS uses our traditional ISMB school model, paired with professional development for the teachers. Our STP program is designed to help teachers feel more confident preparing and leading hands-on science activities by providing guidance, resources, and practice incorporating our field-tested lessons into existing curricula.

*The NGSS logo is a registered trademark of Achieve. Neither Achieve nor the lead states and partners that developed the Next Generation Science Standards were involved in the production of this product, and do not endorse it.



OUT-OF-SCHOOL PROGRAMS



Served
100,000

Disney (SpectacuLAB)

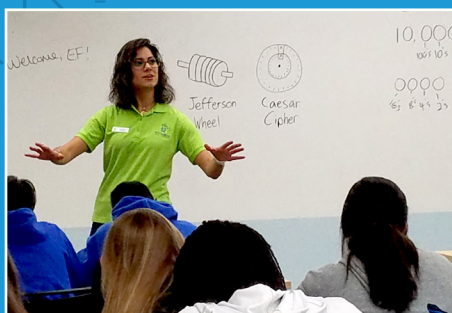
A live stage show featuring SfS staff exploring the real world applications of STEM running every day at Epcot at Walt Disney World, Orlando, FL. Co-developed & sponsored by Murata.



Served
7,000

America's Cup

Education partner with the America's Cup Endeavour Program for the 2017 America's Cup in Bermuda.



Vacation Programs

Week-long programs that focus on developing research skills and project-based learning. These are collaborations with corporations or research facilities.



Science Theater

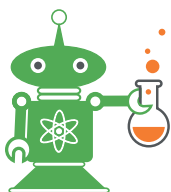
A live, interactive science-themed stage show that brings the excitement of science experiments to families and young children. Past shows have taken place at The Hall at Patriot Place, Joint Base Andrews in MD, and Disney World in Orlando, FL.



Community Presentations

We collaborate with school partners, districts, and community organizations to host hands-on science presentations and activities throughout our region of impact.

CONNECT WITH US TO LEARN MORE!



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OPENED 2002



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Beverly
Boston
Boxford
Brockton
Easton
Haverhill
Hopkinton
Lynn

Malden
Peabody
Quincy
Randolph
Revere
Tyngsborough
Worcester

CALIFORNIA

OPENED 2014



SCHOOLS

Brisbane
East Menlo Park
Foster City
Millbrae

Pacifica
Redwood City
San Jose
San Mateo

MINNESOTA

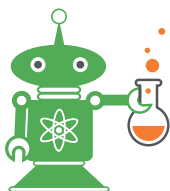
OPENED 2016



SCHOOLS

Bloomington
Brooklyn Park
Forest Lake
Lino Lakes

Minneapolis
St. Paul
Waubun



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Letter from the Founder

I founded Science from Scientists in 2002 with the intent of trying to address the “STEM challenge.” This challenge originates from two separate issues, that of aptitude and that of attitude. We are constantly reminded by the media (TV, newspapers and magazines) that students in the United States are struggling to stay competitive in STEM subjects. Their aptitudes in math and science are not competitive with that of their international peers. The need for qualified STEM professionals is growing while the number of students graduating prepared to take on these challenges is shrinking. Test scores indicate a large “achievement gap” between our students and those in other nations. With the growing global economy it is all too easy for companies to move their businesses to other nations or to hire individuals from other countries. This is already happening due to lack of preparedness of the students here at home.

Science from Scientists sends real, charismatic scientists into the classroom, during school every other week for the entire school year. We are a during-school program because we believe that every child should have the opportunity to be exposed to STEM, not just those in after school programs who are already interested, or whose parents sign them up. Every child deserves the opportunity to be exposed to hands-on science. Our staff is vetted for their ability to connect with children and help to change the “science is uncool” stereotype, which is so prevalent in our society. Our goal is also to improve student attitudes towards STEM by providing role-model scientists in the classroom who have other interests and hobbies, helping students to understand that scientists are often well-rounded individuals, not the stereotype frequently portrayed.

Our national and international visibility continues to increase with a partnership with the America’s Cup Endeavour sailing program. We became an educational partner with Endeavour, reaching nearly 7,000 children at the 2017 America’s Cup in Bermuda. In November 2017, we launched The SpectacuLAB at Innoventions, an interactive science stage show in Epcot at Walt Disney World® Resort in collaboration with Disney and electronic component manufacturer Murata. This show ran seven days a week with five shows a day and reached more than 100,000 children and families.

Additionally, we continue to run our vacation programs and tabletop activities at popular family science events in our geographic areas of reach.

As I mentioned, attitude is only one half of the challenge. In these days of shrinking educational budgets and focus on other subjects because of standardized testing, many school districts have completely eliminated science from their curriculum. Partnered with this is the fact that many elementary and middle school teachers are afraid to teach science due to their own lack-of-preparedness, students are not being exposed at a young enough age and thus fall behind by the time they are in middle school. Once behind, it is difficult to catch up or to restore interest in STEM subjects in high school.

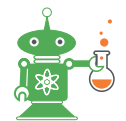
Science from Scientists aims to bridge this gap as well. Our program is a hands-on program built around the material the students are expected to learn, not just “gee whiz” cool demonstrations (though our demonstrations are very cool!). We have shown quantifiable success in elevating student aptitude. We track standardized test scores in science to determine our efficacy and have shown a significant increase in state standardized test scores from before our program inception to after.

Since 2002, we have established ourselves as an organization with a track record of success in improving student attitudes and aptitudes in STEM. We recognize the importance of working with classroom teachers and take seriously the need to evaluate and improve our program with each passing year.

As scientists, we are all passionate about what we do and we thank you for your interest in Science from Scientists. We hope you will join us in continuing building a strong foundation for youth in STEM across our great nation.



Erika Ebbel Angle, Ph.D. Founder and
Executive Director Science from Scientists

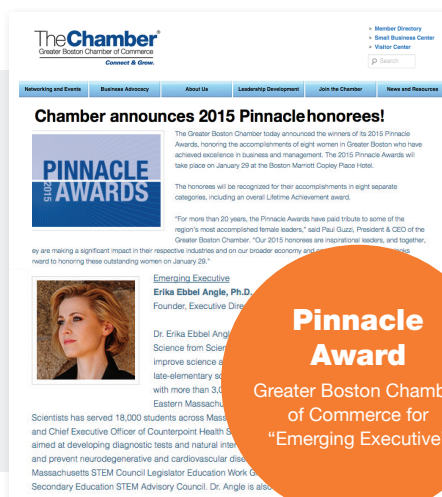


SCIENCE
FROM SCIENTISTS

AS SEEN ON



“40 under 40” Award
Boston Business Journal's award for Ten Outstanding Leaders



Pinnacle Award
Greater Boston Chamber of Commerce for “Emerging Executive”





Thank You!

Benefits of Investing in STEM Education through Science from Scientists

HELP MORE TALENTED PEOPLE INTO THE STEM PIPELINE

By supporting Science from Scientists, you:

- Send real, cool scientists into classrooms to alter negative stereotypes about scientists.
- Help students build their STEM competency and improve their Science standardized test scores.
- Make science cool and challenge students to perform at a higher level.
- Build students' critical thinking and problem-solving skills, spirit of perseverance, and demonstrate the value of teamwork.
- Create more scientists for business and industry.

BRAND RECOGNITION & EMPLOYEE ENGAGEMENT

How we help you:

- As we continue to expand across the country, we would like to position you, our supporter, as an innovative investor in STEM education. Your logo can appear on promotional materials, our website, social media, and newsletters.
- We measure the impact of our programs to show a return on your investment.
- We offer our STEMissaries program for corporate volunteers to design and teach hands-on science lessons in local communities.
- At higher levels of support, we offer a custom special science-themed event at our donors' corporate offices.

How to submit your donation:

Please refer to our website for more information on donations made by mail, credit card, stock, or Donor Advised Fund. [www.sciencefromscientists.org/donate]

SUPPORT LEVEL BENEFITS FOR CORPORATIONS AND FOUNDATIONS

| | Up to \$5,000 | \$5,001– \$19,999 | \$20,000– \$29,999 | \$30,000– \$49,999 | \$50,000– \$74,999 | \$75,000+ |
|--|------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------|
| Recognition in Annual Report | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Logo Visibility on Web & Social Media | | ✓ | ✓ | ✓ | ✓ | ✓ |
| Dedication/Certificate from School | | | ✓ | ✓ | ✓ | ✓ |
| Press Release | | | ✓ | ✓ | ✓ | ✓ |
| STEMissaries | | | | | ✓ | ✓ |
| Custom Special Event at Corporate Office | | | | | | ✓ |

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Boston Scientific

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ALICE P. CHASE TRUST/
BNY MELLON



BOSCH
Invented for life



BRIGHAM AND
WOMEN'S HOSPITAL

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ADELAIDE BREED BAYRD
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Morgan Stanley
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AT MORGAN STANLEY



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Five Years Out



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\$5,000



THE MCCARTHY
FAMILY FOUNDATION



THE SARAH G. MCCARTHY
MEMORIAL FOUNDATION



Epcot's Spectaculab: A Scientifically Spectacular Addition to Future World



BY PASSHOLDER DIVA | ATTRACTION REVIEWS, EPCOT, WALT DISNEY WORLD

Article appeared at: <http://www.tipsfromthedisneydiva.com/category/walt-disney/epcot/>



Epcot has always been my favorite park. As a kid, I wandered through Future World, adoring Horizons, Journey into Imagination, and World of Motion. I especially loved the all the hands on fun and interactive exhibits at Communicore and then Innoventions. But lately, Epcot has really only seemed to come alive during its periodic special events, like the Festival of the Arts and the International Food and Wine Festival. It remains my sentimental favorite park, but I was sad to see Future World seem to slowly wither away. Recently, however, a ray of hope seemed to shine on my beloved park. A new attraction opened up in Innoventions. Called Spectaculab, the show harkens back to the what I like to call the “golden days” of Epcot and is well worth a visit.

Located next to the worthy Colortopia in Innoventions East, this attraction is presented by scientific instrument-maker Murata and billed as “a funny and fascinating show that celebrates basic scientific principles” and it really does just that. The premise is that a young intern, Frankie, is learning about science on his first day on the job, and the audience learns right alongside him.

The show is currently running 5 times a day, at 10:30 am, 11:45 am, 2pm, 3:15 pm, and 4:30 pm. While guests line up in the waiting area, there is a pre-show teaser where mass and velocity are demonstrated in real world terms. You are then let into a small theater with benches, and kids are encouraged to sit on the floor in the front.

The show itself is actually a series of experiments conducted by a rotating cast of two real-life scientists who are part of a nonprofit group called Science from Scientists whose mission is to “teach and inspire the next generation to identify and solve real-world problems by improving STEM literacy.” They want to inspire students to see that “science is in everything,” and they do that during the show by using everyday objects and situations to explain concepts like barometric pressure, sound waves, force, and velocity.

During the preshow, a scientist has guests demonstrate principles of mass and velocity.

There is a lot of audience participation involved, and a small theater means that pretty much every kid in there who wanted to was called to the front to join into the action. And the experiments themselves were super fun: who doesn’t want to play an innovative version of Simon Says or see a concrete block

smashed with a sledgehammer? (I won’t spoil the details of this experiment!)

While the jokes are a bit corny, I loved how the cast members worked scientific principles into everyday life in a way that made them approachable for young and old alike. At one point, Frankie the intern, amazed by something he has seen, exclaims: “It’s magic!” No, say the two scientists, “It’s SCIENCE!”

Hooray for a return to the Epcot of old! Here’s hoping they install more attractions like this in the rest of the currently empty Innoventions areas.



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Science from Scientists at Forest Lake Elementary



BY KENNY NEWBY

Article appeared at: https://www.hometownsource.com/forest_lake_times/science-from-scientists-at-forest-lake-elementary/article_5d31682c-f765-11e7-9ded-3foaf998dfc6.html



Walk into Room 120 at Forest Lake Elementary on a Wednesday, and you will see science in action! This year, all fourth- and fifth-graders at Forest Lake Elementary are experiencing 18 hands-on science lessons, taught by trained scientists with advanced science, technology, engineering, and math degrees, who have been selected to work with the Science from Scientists program.

In the spring of 2017, a team of teachers and I met with Karlene French, director of Minnesota development with SfS, about the opportunity to bring this program to our school. After a short presentation and discussion, we knew this was an opportunity we couldn't pass up. Prior to the 2017-2018 school year, our team at Forest Lake Elementary met with

Renee Piersa, director of Minnesota operations with SfS, to select the hands-on lab-based lessons that would align with, support, and enrich our grade levels' current science curriculum. Some of the labs we selected include Engineering Redesign, Introduction to Electricity, Electromagnetism, Heart Health, Fossils, Simple Machines, Introduction to Tectonics, Photosynthesis, and Population and Sustainability. Our teachers have appreciated the support and enrichment that these labs have provided to their classroom science instruction. Now that we are halfway through our first year with the program, we are very happy that we made the decision to be part of it and hope to see the positive impact that this extra exposure to science will have on our students.

As their website states, Science from Scientists was founded by Dr. Erika Ebbel Angle in Boston, Massachusetts, in 2002. SfS's mission is to teach and inspire the next generation to identify and solve real-world problems by improving STEM literacy. Its vision is to inspire students, ignite interest, and improve STEM competency with the goal of filling the workforce pipeline with talented, competent individuals. SfS has only been in Minnesota since 2016, but this program provides STEM programming to 10,000 students a year across Minnesota, Massachusetts, California and Florida.

As Forest Lake Elementary serves fourth- through sixth-grade students, we are a good fit to be selected to participate in the SfS program as it focuses on upper-elementary and middle-school-aged students. SfS focuses on students within this age group to try to get them connected and interested in taking science-related courses prior to any social pressures taking effect, which can make excelling in science a challenge and negatively impact the number of students interested in STEM-related career options. Another benefit of participating in the SfS program is having our students interact with STEM professionals, as the instructors come from different backgrounds/ science related careers, who have exposed our students to exciting career opportunities in STEM. The work of SfS is data-driven, which is why grades four and five were selected to participate. Our fifth-graders take the Minnesota Science MCA, which is the assessment we collect data points on to measure the impact of implementing the SfS program. It is our hope to be able to expand this program into our sixth-grade classrooms in the future, as we are confident this is having a positive impact on our students' success in science!

We are very thankful to current funders of SfS who have helped make this program a reality at Forest Lake Elementary, which is free for the first two years of implementation. If you would like to learn more about the SfS program, including career opportunities, volunteer opportunities, and teacher/family resources, or if your business/corporation/foundation is interested in helping fund this amazing program, you can visit its website at www.sciencefromscientists.org. We are very happy that we made the decision to be part of it and hope to see the positive impact that this extra exposure to science will have on our students.

Forest Lake Times



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Grand Opening — The SpectacuLAB at Epcot



BY JEREMIAH GOOD

Article appeared at: <https://www.laughingplace.com/w/articles/2017/11/20/grand-opening-spectaculab-epcot/>



This past week, Innoventions took a step in bringing back the classic “edutainment” feel of Epcot by adding The SpectacuLAB presented by muRata.

Colortopia, the last remaining piece of Innoventions, has a new neighbor taking over House of the Future area and, with a partnership between Disney, muRata, and Science from Scientists, this show is a fun place to go and open your mind for a few minutes!

We were lucky enough to be invited to the Grand Opening of this new, family-friendly attraction and had a few great moments meeting the people behind this show along with Frankie the Intern.

This 25-minute show is a great addition to the park; it gives families a nice place to sit and enjoy some edutainment that will hopefully spark the minds of those young and young at heart to look into science.

The show introduces us to Frankie the Intern (I believe that is all one name) along with two scientists from muRata who go over some very simple experiments.

These reminded me of being a kid and watching Mr. Wizard on television after school each day but was way more fun.

The SpectacuLAB is open seven days a week — just check your show schedule or Walt Disney World app for showtimes.

muRata is a global leader in the design, manufacturing, and supply of advanced electronic materials, leading edge electronic components, and multi-functional, high-density modules. Murata innovations can be found in a wide range of applications from mobile phones to home appliances, and automotive applications to energy management systems and healthcare devices.

Science from Scientists is a non-profit organization that aims to inspire students, ignite interest, and improve STEM competency with the goal of filling the workforce pipeline with talented, competent individuals.

America's Cup Partners with Science from Scientists on STEAM Curriculum



BY JOSHUA BOLKAN

Article appeared at: <https://thejournal.com/articles/2017/07/12/americas-cup-partners-with-science-from-scientists-on-steam-curriculum.aspx>



Science from Scientists (SfS) recently partnered with the America's Cup Endeavour Program in an effort to interest students in Bermuda in science, technology, engineering, arts and math (STEAM).

The Endeavour Program is an America's Cup initiative designed to bring together marine industry representatives for a youth education and sailing program. Science from Scientists is an organization that pairs scientists with classroom teachers to help develop lessons and to work with students in the classroom on a regular basis.

As part of the partnership, SfS and Endeavour created a curriculum, STEAM through Sailing, to introduce

students to the sport. The curriculum included five lessons:

- Students used K'Nex and fabric in an engineering race to create sail cars and learn about sailing geometry;
- A design challenge in which students were asked to create boats that held increasing amounts of weight to learn about buoyancy;
- A lesson about different kinds of trash found in and near waterways and how long it takes them to degrade;
- A lesson about simple machines on sailboats and how they reduce work for sailors; and
- A lesson about wetted surface area and drag.

“Sailing is a sport, but it is also a science and we’re excited to work with the America’s Cup Endeavour Program and, through them, the Bermuda community to encourage students to find fun in the sport itself and the science behind it,” said Erika Ebbel Angle, founder and executive director of Science from Scientists, in a prepared statement. “STEM education will be essential to the next generation of youth in Bermuda, and around the globe, as the demand for career-ready scientists, technologists, engineers, artists and mathematicians continues to grow. The America’s Cup Endeavour Program provides a perfect opportunity to encourage young people to start

thinking and get enthusiastic about science because the engineering, technology and design elements used to develop the racing yachts for the America’s Cup event itself are truly fascinating.”

More information about Science from Scientists is available at sciencefromscientists.org. Visit americascup.com to learn more about the Endeavour Program.



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