Accomplishments Report
2020–2021

A Year of Virtual STEM Experiences
DEAR FRIENDS AND STEM CHAMPIONS,

No doubt about it, the past year has been an extraordinarily difficult one for students, families, teachers, school administrators, and other staff filled with many challenges and uncertainties. As we look forward, I think we all can agree that we are approaching the upcoming year with a renewed sense of purpose and hope.

In reflecting on the last academic year, Students 2 Science (S2S) thinks about the many societal inequities that the pandemic uncovered. We have strengthened our resolve to serve the many students and teachers who need us, as well as sharpened our focus on how we can leverage our programs and expertise to make an even larger impact.

We live in one of the wealthiest countries in the world, yet nearly 51% of all students in grades K-12 are part of low-income households. That is 28.7 million children, the majority of whom are from families of color. These children have limited access to high-quality education, which severely limits their potential for success and deprives the world of their untapped talent.

The path forward for S2S is to help close the education gap by bringing high-quality STEM education to students in need. We want to introduce these students to college and career pathways that spark a passion for STEM so they can fulfill their potential and be empowered to succeed as part of the global workforce.

We have made great strides, exemplified by our partnerships with many school districts across New Jersey. A highlight is the renewal of our formal contract with Newark Public Schools for the next five years. We are incredibly proud of these partnerships and everything they symbolize about our joint commitment toward a better future for our nation’s students.

In addition to fortifying our resolve, we have also strengthened our team by further expanding the S2S Board of Trustees with members who bring additional skills and diversity to help us advance our mission. In addition, we celebrated rebuilding our team and welcoming back treasured colleagues after a pandemic-forced furlough.

Our vision is to serve one million students in school districts and communities across the US by the year 2030. The overall goal of S2S is to excite more students, educators, volunteers, schools and donors to engage and partner with our programs. Your exceptional support and partnership are what fuels our continued growth and success.

Together, we can harness the needed resources to bring lasting change to the communities and students we are privileged to serve. We look forward to working with you to achieve that potential.

Thank you for believing in S2S!

Paul Winslow, PhD
President, Students 2 Science, Inc.
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Expanding STEM Leadership

This past year, we dedicated strong focus to assessing and evolving our organizational repositioning, branding and growth to better reflect who S2S is and what we do.

New Logo

[Image of new Students 2 Science logo]

Updated Mission Statement

Inspire, motivate, and educate elementary, middle, and high school students in economically disadvantaged communities to pursue careers in STEM and foster a more diverse, equitable and inclusive workforce.

New Website and Online Resource Center

We are currently working on two key projects that will launch in Fall 2021:

- A new S2S website with a fresh look, including a user-friendly, secure interface and refreshed content designed to optimize user experience
- An Online Resource Center comprising essential program toolkits, college and career videos, webinars, and a wide variety of helpful STEM resources for educators, families, and other key constituents. The Center will be an integral part of our efforts to make STEM resources easily accessible to everyone

S2S Board of Trustees

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<td>Sheila Thorne, President/CEO, Multicultural Healthcare Marketing Group, LLC</td>
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<td>Paul Winslow, PhD, President &amp; Co-Founder</td>
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Students 2 Science Inc. Accomplishments Report

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2020-21 at a Glance

Pivot to All Virtual
Our Virtual Lab (V-Lab) Program, created in 2014, allowed S2S to continue supporting teachers and students during the pandemic. We completely shifted focus to the V-Lab program to meet the increased remote learning needs of partner school districts. All program staff were assigned to development, scheduling, and delivery of V-Labs. We rolled out the following options, with both synchronous and asynchronous modes, as a COVID-19 contingency:

TRADITIONAL V-LABS
Designed for students remaining in a physical classroom conducting hands-on experiments led by S2S instructors

HYBRID V-LABS
Developed for schools following a hybrid format with hands-on experiments for students in the classroom while the S2S instructor demonstrated the experiment for students learning virtually at home

AT-HOME OR ALL-REMOTE V-LABS
S2S instructor-led experiment demonstration for students learning via remote instruction

The Year in Numbers
Served 33,008 STUDENTS via hands-on, real-world STEM experiences through the V-Lab Program

16,531 students served through East Hanover Technology Center

16,477 students served through Newark Technology Center

Delivered 2,440 V-Lab classes in 3 different formats

Partnered with 123 schools from 17 school districts and 7 charter schools/networks in NJ and PA

Collaborated with 5 after school programs to expand outreach beyond traditional classrooms
Growth Highlights

S2S and Newark Public Schools
In Spring 2021, the Newark Board of Education voted to renew the S2S Newark Technology Center’s contract for the next five years, validating the positive impact of S2S programs on Newark Public School students. Even during a global pandemic, Newark Public Schools saw the importance of S2S programs for their students.

“As we embark on our historic 10-year strategic plan, Students 2 Science continues to support our vision for science education, and we applaud those efforts.”
Roger León, Superintendent, Newark Board of Education

The S2S Newark Technology Center was established as part of a public-private partnership between Newark Public Schools, the City of Newark and S2S to immerse more than 36,000 students in real-world, hands-on, career-oriented STEM education. Since the establishment of this partnership in 2016, S2S has served over 60,000 students in Newark via our in-lab and virtual programs.

Expanding Outreach to After School Programs
In Spring 2021, we successfully launched a 10-week pilot initiative in partnership with four Boys & Girls Clubs in NJ, reaching 1,265 students.

This expansion into after school programs allows S2S to engage students from economically disadvantaged communities in STEM programs outside of traditional classrooms and help address pandemic-related learning loss. Our other after school partnership includes Oasis Haven for Women & Children, a nonprofit in Paterson, NJ, that provides children in need with educational and social service programs. We will continue to expand this initiative during the current school year.
Growth Highlights (cont’d)

**Partnership with Cadence Learning**

Last summer, we partnered with Cadence Learning, an educational non-profit with a national coalition of partners serving students in economically disadvantaged communities. Through Cadence, we made V-Lab content available to more than 500,000 students in 20 states.

**Virtual Volunteering**

In a year full of the uncertainties of remote/hybrid learning, S2S volunteers found many creative ways to make a difference in the lives of our students.

Volunteers introduced students to STEM career opportunities via our College & Career Webinar Series, created engaging virtual STEM projects supportive of e-learning, and live-streamed into classrooms to encourage and inspire students with their own STEM stories.

All content developed through these initiatives will be made available on our Online Resource Center. We are so grateful for the commitment and dedication of our amazing volunteers!

**College & Career Webinar Series**

In Spring 2021, we launched our College & Career Webinar Series, developed in collaboration with corporate partners. The webinars are designed to build middle and high school students’ knowledge of 21st Century STEM college and career pathways.

We hosted three incredible sessions:

- Sanofi US and the Boys & Girls Club of Hudson County
- PTC Therapeutics, Inc. and Passaic Academy for Science and Engineering
- Insmed Incorporated and Bound Brook Middle School

Overall, the series has been very well-received among our students, and we look forward to hosting many more of these events in coming years.

**Awards**

Our President and Co-Founder Dr. Paul A. Winslow received two prestigious awards for his work over the past decade to inspire and empower students to succeed with STEM and pursue related college and career pathways. Congratulations to Paul on these well-deserved recognitions!

**2021 RUSS BERRIE MAKING A DIFFERENCE AWARD**

Honors NJ residents whose outstanding community service and heroic acts have made a substantial impact on the lives of others

**2021 NJBIZ ICON AWARD**

Celebrates NJ business leaders over the age of 60 for their contributions, success, and leadership
S2S worked with metrics consultant High Impact Partnering to measure the impact of the V-Lab program, while focusing on feedback from teachers and administrators. Surveys analyzed the implementation and outcomes of the V-Lab program at two points in time during the past school year. They also gauged how teachers and administrators currently view and use the V-Labs in their schools and their plans for using the V-Labs in the future.

THE RESULTS WERE OVERWHELMINGLY POSITIVE

The chart below displays teachers’ and administrators’ ratings (scale of 0-100%) on constructs developed through factor analyses. Constructs evaluated include:

- Overall program design (Structural Program Elements)
- Program alignment to education standards and curriculum (Alignment & Instructional Experiences)
- Program’s impact on students’
  - Problem-solving skills
  - Knowledge of STEM career pathways
  - STEM content knowledge
- Impact on teachers’ knowledge of and ability to teach STEM content

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**Teacher and Administrator Survey Results**

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<tr>
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<th>Teacher</th>
<th>Administrator</th>
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<tbody>
<tr>
<td>Structural Program Elements</td>
<td>92.3%</td>
<td>89.0%</td>
</tr>
<tr>
<td>Alignment &amp; Instructional Experiences</td>
<td>90.6%</td>
<td>88.9%</td>
</tr>
<tr>
<td>Approaches to Problem-Solving</td>
<td>85.1%</td>
<td>80.7%</td>
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<tr>
<td>Student STEM Careers</td>
<td>87.9%</td>
<td>83.2%</td>
</tr>
<tr>
<td>STEM Knowledge &amp; Skills</td>
<td>83.2%</td>
<td>85.3%</td>
</tr>
<tr>
<td>Teacher Knowledge &amp; Skills</td>
<td>81.8%</td>
<td>85.3%</td>
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</tbody>
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1. The underlying big ideas/concepts measured by survey questions
2. A technique used to reduce a large number of questions/variables into fewer overarching factors
Looking Ahead

Our vision is to serve 1 million students annually in school districts and communities across the country by the year 2030.

The S2S overarching goal is to help build a strong, diverse and qualified talent pipeline to support the 21st Century STEM workforce and create a more equitable and resilient society.

TO FURTHER OUR VISION, WE PLAN TO:

Establish three to five S2S Technology Centers in strategic locations across the country.

Target regions:
Chicago, Jersey City, Pittsburgh, Raleigh, St. Louis and/or San Francisco Bay Area

Expand to 10,000 V-Lab classes nationally through partnerships with public schools, charter school networks, and after school/out-of-school programs.
Testimonials

“I really love how interactive they are and how much fun Nico has with doing them. I also enjoy watching them and Nico telling me all about it.”

Milene Baptista, mom of Nicolas Baptista Lopes (pictured below), a 7th grader in Honors Science class at Bound Brook Community Middle School, Bound Brook, NJ

“The Students 2 Science program has been a great experience for our students during a very difficult school year! The staff at S2S helped us manage the delivery of science labs during complete virtual instruction. And then as we transitioned to hybrid instruction, they provided us with all the lab materials for students to use in person and at home. Our students looked forward to each and every lab. It was an excellent way to make curricular connections in a real-world way.”

Mrs. Emily Gigliotti, Educator, Urban Pathways 6-12 Charter School, Pittsburgh, PA

“The past year has presented several challenges to maintaining an interesting, motivating, and rigorous science program in public schools. The V-Labs helped alleviate those challenges by providing an opportunity for students to observe, engage, and learn science concepts as well as introducing them to career possibilities. The V-Lab instructors continue to be flexible, responsive, and inviting, making our virtual time together enjoyable.”

John Severs, District Supervisor, Science, Irvington Public Schools, NJ

“Thank you so much for the great programs this year! This was a tough year to teach science in a meaningful way and your V-Labs helped make it more interesting and fun for the students (especially our virtual learners).”

Jill Goldan, Educator, Smalley School, Bound Brook, NJ
S2S Donors & Supporters

Airgas
ADP Foundation
Atlantic Health System Department of Cardiovascular Medicine
BAE Systems
Bayer Fund
The Bayview Foundation
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Belmay Family Foundation
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PTC Therapeutics, Inc.
Pucillo Family Foundation
Ramapo College of New Jersey Foundation
Sanofi US
Sills Cummis & Gross P.C.
Thermo Fisher Scientific
Timothy Fitzgerald
Victoria Foundation
Viscot Medical, LLC

For financial information, please refer to our Audited Financial Statements and Form 990.
Partner Districts, Charter Schools & After School Programs

PUBLIC SCHOOL DISTRICTS
Bound Brook School District
East Orange School District
Englewood Public School District
Hillsborough Township Public Schools
Irvington Public Schools
Jersey City Public Schools
Kenilworth Public Schools
Newark Public Schools
North Plainfield School District
Orange Township Public Schools
Passaic Public Schools
Paterson Public Schools
Pittsburgh Public Schools, PA
Rahway Public Schools
Somerset County Public Schools
Somerville Public School District
South Bound Brook Public Schools

CHARTER SCHOOLS/NETWORKS
BRICK Education Network
Central Jersey College Prep Charter School
Discovery Charter School
Great Oaks Charter Schools
Greater Brunswick Charter School
Maria L. Varisco-Rogers Charter School
Urban Pathways Charter School, Pittsburgh, PA

AFTER SCHOOL PROGRAMS
Boys & Girls Club of Hudson County
Boys & Girls Club of Mercer County
Boys & Girls Club of Northwest New Jersey
Boys & Girls Club of Paterson & Passaic
Oasis–Haven for Women & Children, Paterson, NJ
Students 2 Science
EMPOWERING STUDENTS TO SUCCEED WITH STEM

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Click here to support S2S and empower students in economically disadvantaged communities with a world-class science experience.