# 2022 ANNUAL REPORT

## CELEBRATING 5 YEARS OF SPARK SHOP

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## **FROM THE DIRECTORS**

5 years ago, SparkShop began as we sat on opposite ends of our couch, thinking of how we could share our love and knowledge of STEM with the next generation — we couldn't wait to bring them into our world. So many



students never experience how fun STEM can be, or the opportunities it can provide. With SparkShop, we have kindled their confidence, creativity, and knowledge and watched them thrive. We started as a 2-woman team that knew every student on our roster, and now stand 6 employees strong, and have reached over 5,000 young people.

It's easy to assume that this growth was inevitable, but there were countless periods of uncertainty. The pandemic left SparkShop's future unclear, but we've remained creative and agile to meet the ever-changing needs of students and teachers. In 2022, what many in education have described as their hardest year yet, we rose to the challenge and surpassed expectations. We reached over 1,000 kids, expanded our program into 3 new schools, and grew our team by 200%.

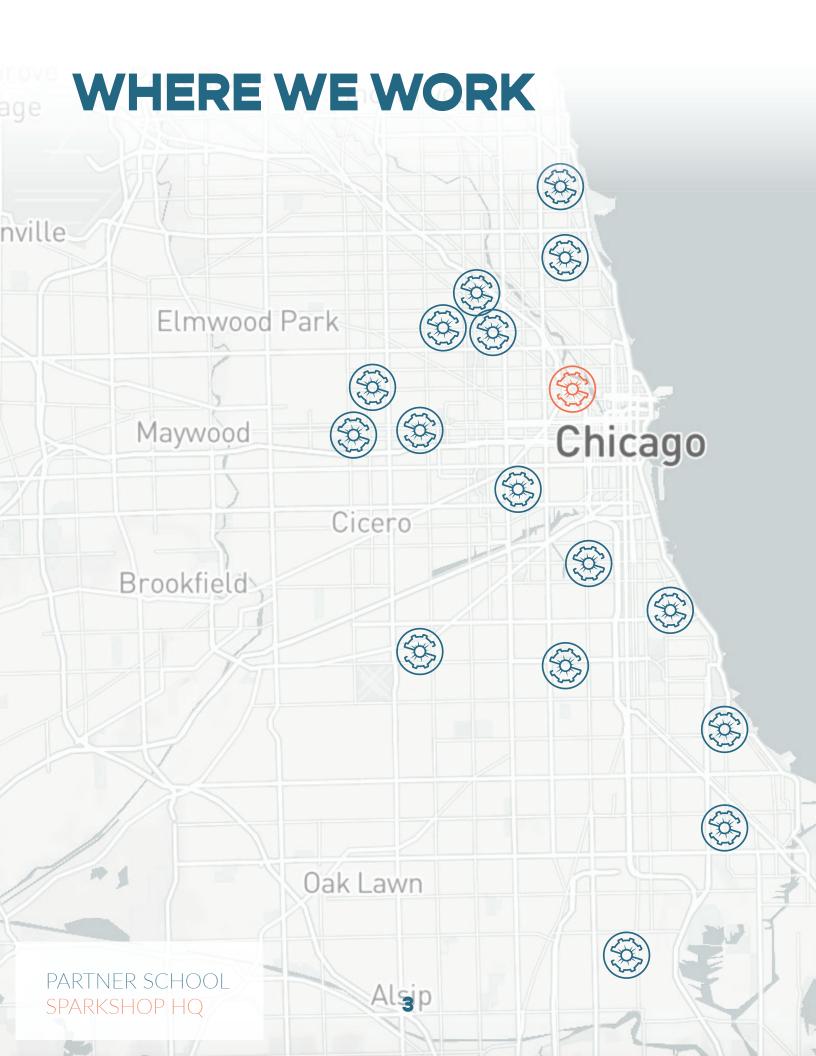
Cheers, to the 5 years your help has made possible. We couldn't have done without you, and are eager to see what the next 5 years hold.

Shonali Ditz & Tiernan Murrell Co-Founders and Co-Directors

### **BY THE NUMBERS**

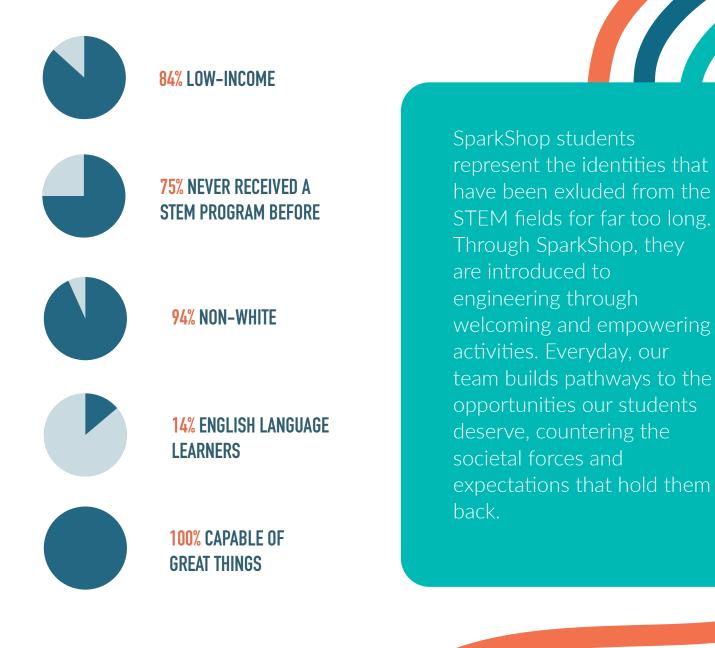
This year, we celebrated SparkShop's 5th birthday! Here's a snapshot of just how far we've come in that short amount of time.

	2017	2022
Total students reached	482	5,315
Total teachers supported	22	75
Active Partner Schools	10	24
Percentage of schools receiving our program for free	80%	100%
Curriculum hours in program	7	45
Full time staff	2	6
Volunteers	15	200
Annual Budget	\$40,000	\$540,000
Lifetime funding raised	\$40,000	\$1,558,668



## **OUR STUDENTS**

We reached **1,038 4th & 5th graders** this year! They represent the diverse backgrounds needed in the next generation of engineers, innovators, and problem solvers!



#### THEORY OF CHANGE



Our programming is designed to increase three measurable outcomes:

- Confidence
- Identity
- Engagement

High-quality STEM experiences build curiousity, resilience, and creativity in young people.

In 4th and 5th grade, students are forming their sense of self around their perceived academic strengths and weaknesses. Inspiring, confidence-building experiences with engineering can change the course of their lives!

The kids in our community who have historically been excluded from engineering deserve to feel empowered to solve technical challenges and find a home in a career sector that's growing, lucrative, and rewarding!\*

\* According to a 2021 report by the Bureau of Labor Statistics, STEM employment is growing at twice the national average rate and median STEM wages are 110% higher than median non-STEM wages.

## **PROGRAM FOR STUDENTS**

Our 4th & 5th graders learned how to apply the engineering design process to tackle any problem they are passionate about!

We delivered a full year of STEM enrichment curriculum that allowed our students to practice engineering in their classrooms weekly.

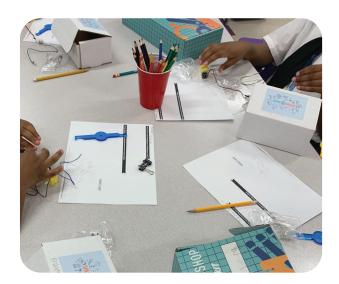


Our beloved supply kits were filled with materials designed by our curriculum team, sourced by our operations team, and lovingly packed by volunteers. These kits give every SparkShop student equal and abundant access to resources for creating, tinkering, experimenting, and innovating!



Each unit includes:

- hands-on STEM lessons
- 3 connected lessons in art, social studies, music, and more
- 3 student-guided activities for independent work



### **PROGRAM FOR TEACHERS**

40 teachers across the city of Chicago ran a full year of SparkShop lessons in their classrooms!

They received 36 original SparkShop lessons that are

- Turnkey
- Culturally responsive and relevant to students' lives
- Aligned to Next Generation Science Standards, Common Core State Standards, and Illinois Social Emotional Learning Standards



"I'm really excited and happy that SparkShop has found a way to continue to meet the needs of our students as the program continues to evolve."

> Cindy Cunningham STEM Specialist Nicholson STEM Academy

65%

of our teachers said that running SparkShop reduced their planning time and made their job easier!

### PARTNERSHIPS

We grew our partnerships with organizations, individuals, and companies that share our vision and values.



#### AMERICAN PRECISION MUSEUM

We developed two new curriculum units for APM. Thousands of rural New

England kids received "Achieving Repeatability" and "Measure the World" kits! Our team also traveled to Vermont to tour the museum and set a collaborative vision with their board.





#### NORTHWESTERN UNIVERSITY

Northwestern's School of Education and Social Policy awarded ISBE Professional

Educator credit to teachers who participated in our first original professional development (PD) workshop. 63% of attendees had never attended a STEM focused PD before!





#### DR. EVE L. EWING

Dr. Ewing met with our team to record answers to

questions from our students about her new book "Maya and the Robot!" We distributed over 1100 copies of the book and it was a highlight of the year for many of our students. The SparkShop team loves Dr. Ewing's work and working with her was such an honor!



#### UNIVERSAL ROBOTS

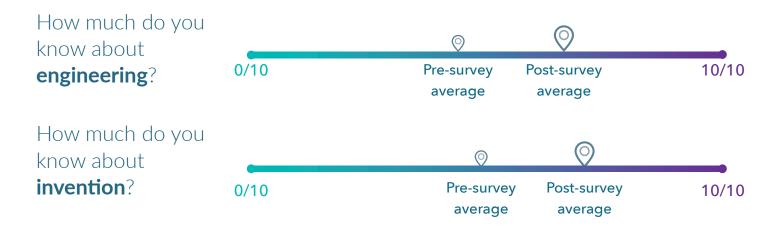
UR donated one of their amazing cobots (collaborative robots!) to

SparkShop as part of an internal pilot to explore elementary school education outreach. Our UR3e has a user-friendly interface and can be adapted for countless tasks! This robot will be a part of our workshops that allow classes to dive deeper into STEM content and explore technology that's traditionally cost-prohibitive!



#### IMPACT

All insights are gathered from student pre/post surveys designed to measure changes in confidence, identity, and engagement.



At the beginning and end of our program, we ask kids what they want to be when they grow up.

Popularity of STEM careers on pre-survey



# 100%

of teachers surveyed agreed that students who often struggle to engage at school are highly engaged in SparkShop. Popularity of STEM careers on post-survey



After SparkShop, our students are:

- **2x** as likely to pick a STEM career
- **42%** less likely to say "I don't know" about their future careers

# **NOTES FROM OUR KIDS**

This was the most beloved part of our 2021 annual report and we're excited to continue the tradition. Below, you'll find our students' answers to our survey question: "What advice would you give to future SparkShop students?" Here are some of our favorites, free of any editing.

SparkShop is a place to be yourself and have fun, and you don't need to be scared to make mistakes because you can work it out together.

KAELOPE, 11

You will have so much fun making inventions.

FARHAN, 9

I'll tell them to always share your ideas because they could be something great in the future.

ROBERT, 12

if you pay attention you can do your best and work hard and of course have fun. One day your gonna love Spark Shop

DE'ASIA, 10

Try, try, and try again. Make improvements if it doesn't work and if you need help ask for help.

SANIYYAH, 11

U CAN DO ANY THING IF U PUT UR MIND TO IT U CAN MAKE ANY THING

JAHAN, 10

be humble, brainstorm, be nice, and make friends!

BELLAMY, 10

try your best and your mistakes can make something beautiful

#### KAMARRII, 9

# OUR TEAM

#### STAFF

SparkShop grew to a team of 6 talented engineers, teachers, and nonprofit professionals! Pictured from top left:

- Azaria McKay, Program Implementation
- Eileen Patton, Alumni & Impact
- Shonali Ditz, Co-Director
- Stephanie Batres Spezza, Curriculum Dev.
- Tiernan Murrell, Co-Director
- Jess LeMaster, Operations & Infrastructure



#### BOARD OF DIRECTORS



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Ed Coleman President & CEO West Side Forward



Dr. Tim Dohrer Director - MSEd Program Northwestern University



Tiernan Murrell Co-Founder & Co-Director SparkShop



Jim Bittler Mechatronics PhD Student University of Illinois - Chicago



Shonali Ditz Co-Founder & Co-Director SparkShop



Ted Ganchiff Founder & CEO GdotA



Cheryl Simon Picture Book Author

# VOLUNTEERS

200 volunteers joined us at 15 events, magnifying the impact of our small team!



#### OUR VOLUNTEERS:

- Packed over 4,000 kits for Chicago students.
- Starred in original educational videos introducing students to engineering careers and skills.
- Gathered in 5 different locations across the city and suburbs.









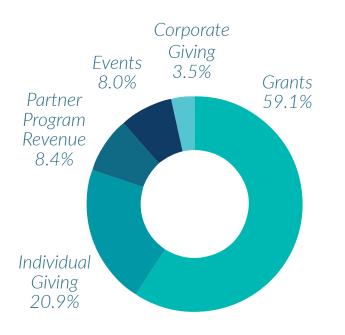


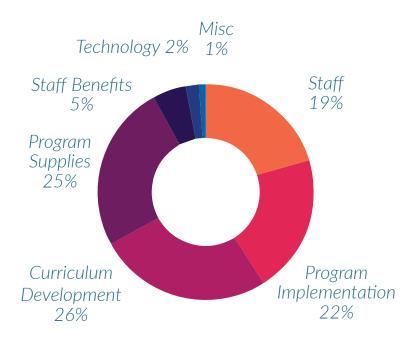


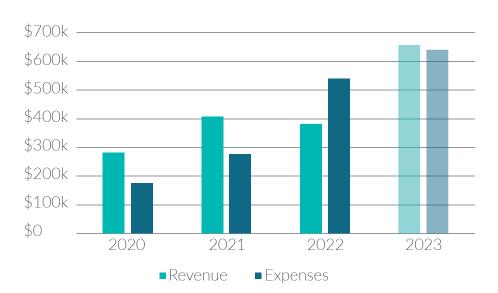
### FINANCIAL SUMMARY

#### REVENUE

#### **EXPENSES**







#### **FY2023 PROJECTION**

We are making big moves in 2023 to expand of our core program and launch two new ones to support SparkShop alumni. We're well on our way to our goal of a one million dollar operating budget by 2025!

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**FUNDING PARTNERS Farley Family Charitable Foundation** The Max and Victoria DREYFUS FOUNDATION FIELD THE ASSOCIATION FOR FIRST MANUFACTURING Congregational **NOTES**<sup>®</sup> TECHNOLOGY Church WESTERN SPRINGS **Richard C. Caris Charitable Trust Steven & Susan Cobin Family Foundation** Maureen and Paul Rubeli Foundation **IN-KIND DONORS** UNIVERSAL McDermott Will & Emery ROBOTS noPrints MHUB **VOLUNTEER PARTNERS** ╬ FIRST Congregational nucurrent Church MHUB 15