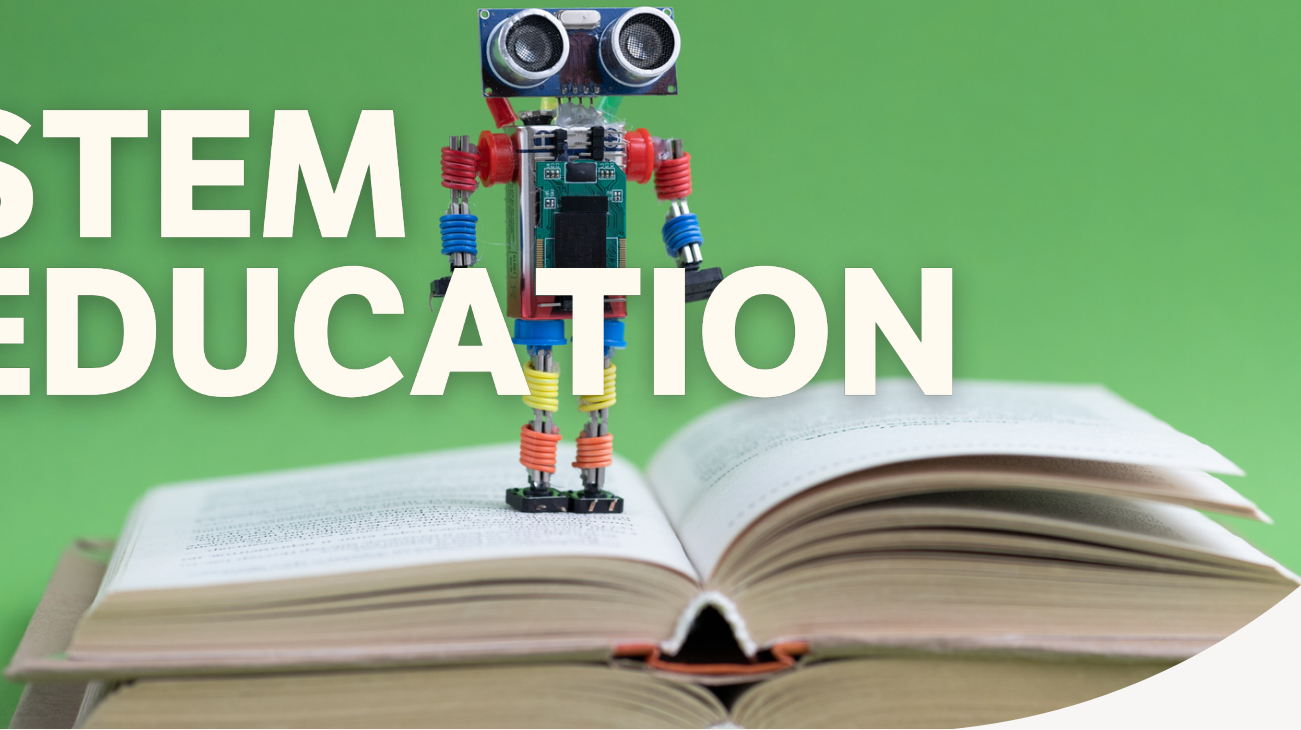


# STEM EDUCATION



2023

## Cause Toolkit

This toolkit is intended to provide your company with inspiration and resources to best engage employees in your Groundswell Workplace Giving Program, by highlighting nonprofits working in the area of Science, Technology, Engineering and Math (STEM). You can choose from the resources included in this toolkit to determine what will work best to educate and engage your employees around this cause.

# STEM Education Overview



STEM education refers to education in the fields of science, technology, engineering, and mathematics. It typically includes instruction in a wide range of disciplines, including biology, physics, chemistry, computer science, and mathematics, as well as engineering and technology. STEM education is considered important because it helps students to develop a wide range of skills that are valuable in today's rapidly changing job market. STEM careers also tend to offer higher earning potential; according to the Bureau of Labor Statistics, in 2021 STEM jobs saw an annual mean wage of \$100,900, compared with \$5,260 for non-STEM jobs.

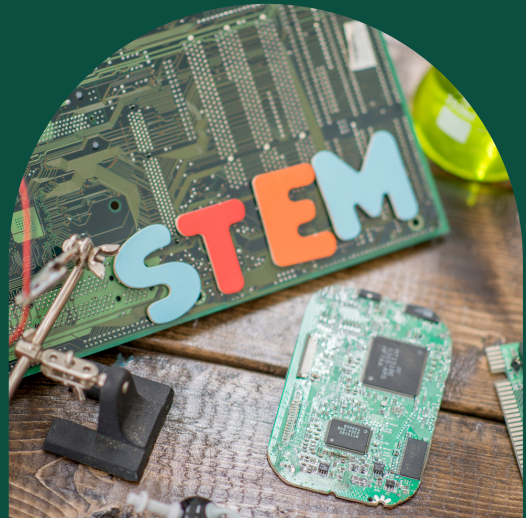
While there is little doubt about the importance of STEM-related education and training, there is a significant lack of diversity in the STEM workforce, especially for Hispanic adults who make up only 8% of all STEM workers despite being 17% of total employment. Black workers are also underrepresented, comprising only 9% of all STEM workers and just 5% in engineering and architecture jobs. The long-term outlook for diversity in STEM is closely tied to representation in the STEM educational system, which currently shows that Black and Hispanic adults are underrepresented in STEM college graduates compared to their share in the population. Gender disparities also persist, with women making up a quarter or fewer of workers in computing and engineering.

Many companies are working to support greater diversity in STEM education and related workforce training programs - to build a strong pipeline of talent for the future. Many companies are providing funding for STEM programs in under-resourced schools and communities, which can include funding for equipment, resources, and teacher training. Other companies offer internships, mentoring, and job shadowing opportunities, giving students hands-on experience and exposure to careers in STEM fields.

# STEM Education Facts and Data

## 8% growth

According to the U.S. Bureau of Labor Statistics, employment in STEM occupations is projected to grow by 8% from 2019 to 2029, which is faster than the average for all other occupations.



## 69% gap

There is a shortage of skilled STEM workers: Despite the growing number of STEM jobs, there is a shortage of skilled workers to fill them. In a 2020 survey, 69% of manufacturing executives reported that they were having difficulty finding skilled workers to hire.



# STEM Education Nonprofit Spotlights

There are many non-profit organizations across the United States that support STEM education and lay a foundation for students to be prepared for STEM careers. Listed below are a selection of nonprofits you can find on the Groundswell app:



## FIRST

FIRST® inspires young people to be science and technology leaders and innovators by engaging them in exciting mentor-based programs that build science, engineering, and technology skills, that inspire innovation, and that foster well-rounded life capabilities including self-confidence, communication, and leadership.



## DIY Girls

DIY Girls mission is to increase girls' interest and long-term success in technology, engineering and making through innovative educational experiences and mentor relationships.



## StreetCode Academy

StreetCode Academy bridges the digital divide, empowering communities of color to achieve their full potential by sharing the mindset, skills, and access they need to embrace tech and innovation. We teach students how to communicate with people in tech, tech companies, and the tech community so that when we make introductions to industry professionals, students are ready to actively engage and take advantage of their growing network.



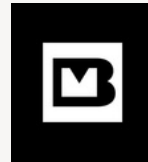
## Code.org

Code.org® is a nonprofit dedicated to expanding access to computer science in schools and increasing participation by young women and students from other underrepresented groups.



## Project Exploration

Project Exploration creates transformative learning opportunities for youth underrepresented in the sciences — particularly students of color and girls — by equipping them with the skills, practices, and mindset needed for a lifelong pursuit of learning.



## Mission Bit

Mission Bit aims to inspire youth of color to explore the world of STEM with project-based computer science education that embraces their identities. Mission Bit empowers young innovators who reflect our diversity to become leaders of the global technology revolution, developing solutions that serve our whole community.



## 500 Women Scientists

The mission of 500 Women Scientists is to serve society by making science open, inclusive, and accessible and transform society by fighting racism, patriarchy, and oppressive societal norms.



## Lumity

Lumity provides teens and young adults from under-resourced communities with transformational experiences to prepare them for lifelong STEM careers. Our STEM education program, partnerships, talks, and activities break down barriers between under-resourced Chicago communities and businesses.

# STEM Education

## Engage Your Employees

### Kickoff

Company-wide email or blog post at the start of your campaign stating your company's support for STEM - whether from an educational perspective, workforce training, etc - and your call to action. This could include links to resources, and highlighting specific nonprofits that have been vetted for donations - including featured nonprofits found on the Groundswell platform.

### Mid-Campaign

Share nonprofit recommendations from your Employee Resource Group (or from Groundswell's impact team) as well as links to what to READ, WATCH, or LISTEN to better understand the history of STEM, as well as some of the challenges with regards to access, diversity, and inclusion.

### End of Campaign

Share the results of the campaign—how many employees participated/donated, number and amount of donations, etc.

If there is a time-sensitive match that expires at the end of month, remind employees to log into their Groundswell account to contribute and donate

### Employee Engagement

Encourage employees to not only donate to nonprofits in the STEM space, but also consider supporting employees who want volunteer, such as mentorship and other training support.

**Mentoring:** Employees can partner with a nonprofit to volunteer as a mentor students interested in STEM fields. This could involve providing guidance and advice, sharing personal experiences, and answering questions about education and career paths.

**Hosting site visits:** Employees can offer to host site visits at their workplace for students interested in STEM fields. This would give students a chance to see what a career in STEM looks like in practice and learn about the skills and education required for such roles.

# STEM EDUCATION

## Shareable Resources

### Read

- [Science in the City: Culturally Relevant Stem Education](#) by Bryan A. Brown
- [Lab Girl](#) by Hope Jahren
- [The Information: A History, A Theory, A Flood](#) by James Gleick
- [Black, Brown, Bruised: How Racialized Stem Education Stifles Innovation](#) by Ebony Omotola McGee



### Watch

- [CodeGirl](#)
- [The Code: Story of Linux](#)
- [The Farthest](#)
- [Girl Rising](#)

### Listen

- "[STEM Read](#)": This podcast explores the connections between STEM subjects and literature, featuring interviews with authors and discussions on books related to science, technology, engineering, and mathematics.
- "[Engineering Career Coach](#)": This podcast provides career advice and strategies specifically for engineers, including topics such as leadership, networking, and entrepreneurship.
- "[STEM Everyday](#)": This podcast features interviews with educators, researchers, and STEM professionals, as well as practical tips for incorporating STEM education in the classroom.



## Groundswell is your ally in corporate philanthropy.

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Corporate giving programs aim to empower employees and help companies facilitate and support philanthropic efforts. As global access grows and corporations become more diverse, employee representation becomes an increasingly important subject.

Groundswell enables companies to lay the foundation for their employees to adopt a generous giving attitude towards charities and world-shaping efforts.

## Contact

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