Eight Ways to Land K-12 STEM Funding

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Funding for science, technology, engineering and mathematics education (STEM) is one of the most active and growing fields of philanthropy. Even setting aside government funds, there are dozens of foundations and corporations that make this a primary cause. Funding for K-12 STEM education is especially hot right now, as the importance of early exposure to science careers becomes increasingly apparent.

Here at Inside Philanthropy, we've been watching the opportunities for K-12 STEM funding very closely, covering emerging opportunities and compiling everything we know about where this money is coming from and where it's headed. You can monitor our ongoing coverage at the <u>Science Education</u> news section, and dig deep into the funders at our GrantFinder <u>Guide to Science Education</u>.

This article, however, will give you a packed synopsis of some of the main avenues to K-12 STEM funding, including eight main approaches that frequently receive funds, and links to funders throughout.

One note here: Our Science Education coverage is a combination of K-12 and higher ed, along with science centers and museums. You can read more specifics about higher ed opportunities here. This primer will focus solely on K-12 funding, but will be of use to both schools and education programs outside of the classroom.

Inside K-12 STEM Funding

The most important thing to note about STEM funding is that it's driven by several different motives, and understanding where a funder is coming from will be crucial to finding the right fit. For some, typically Silicon Valley tech philanthropists, it's about nurturing innovation. For others, it's about global market dominance and getting ahead of China. Corporate funders are interested

in keeping their industries strong, and in many cases, directly training and recruiting future employees. Then there are funders who consider it a justice issue, ensuring that disadvantaged students graduate with access to future jobs and competitive pay.

Generally, there are a handful of program categories that win grants in this field:

- Professional development for K-12 teachers
- Informal education such as camps and afterschool programs
- Competitions, awards and science fairs
- STEM equipment and curriculum
- · Implementing STEM standards and reform

Here are eight ways to be competitive for this kind of funding:

1. Focus on Diversity

This cannot be emphasized enough. There is a stark underrepresentation of both women and minorities in this field, fueled by a chilling sentiment among students at young ages that science is "not for me." Almost every major STEM education grant program out there emphasizes increasing diversity.

Programs which engage girls in STEM through mentoring and camps, such as Techbridge, frequently receive grants from family foundations and massive corporations alike. It's not an exaggeration to say that almost <u>every major corporation</u> giving to education funds diversity programs, but <u>Intel</u> is one of the notable companies with prominent programs on underserved minorities and girls.

The programs most successful at gaining funding here seem to make it a core, identifying goal to serve these demographics, as opposed to just one guiding factor.

2. Look to Corporations

This may seem obvious, but corporations are the biggest players in this area of philanthropy. What might not be obvious is just how many opportunities there are for programs of all shapes and sizes, including school districts, libraries,

individual teachers, competitions, and after-school programs. It might seem like corporate funding is only for huge, company-branded partnerships (which many don't feel comfortable with), but there are a lot of corporate foundations that take a community-based approach to STEM K-12 giving.

<u>Motorola Solutions</u>, for example, gives several medium-sized grants in cities where they operate. <u>American Honda</u> has similar, frequent opportunities to apply for grants. And even mega-corporations like <u>Chevron</u> create opportunities for individual educators to gain small chunks of funding. Then there are field-specific programs, including specialized curriculum or in-kind donations of equipment, such as those focused on <u>biotech</u>.

The main thing to remember in this approach is to think locally, no matter the corporation. Pursue companies with a big presence in your backyard, and pounce on regional or state employers like <u>Freescale</u> in the Southwest. These companies need a robust, smart workforce in your community, so offer it to them.

3. Make It Fun

Good old Bill Nye made science fun and funny, and as a result there's a whole generation of adults whose eyes light up at the mention of his name, who grew up with his passion for the field. Research is showing that early moments of inspiration and engagement in science play a huge role in getting kids on the path to STEM careers. So there's a major contingent of STEM funders pouring money into finding out how and when to excite young people about science.

The <u>Noyce Foundation</u> is one funder that <u>takes this approach to heart</u>, devoting its funding to informal education programs that are accessible and exciting to all kids, and make STEM an exciting part of daily life, and not just an intimidating class. There's another unique <u>program</u> by the company <u>Cognizant</u>, which is jumping on the Maker and Makerspace craze to bring some of that creative, mad-scientist energy to an often stodgy topic. And there's an entire other category of funding related to keeping it fun:

4. Get Competitive

Science fairs and competitions, and participating schools and programs, rake in the money from STEM funders. Similar to diversity, you'd have a hard time finding a corporate STEM funder that has not created, sponsored, or funded teams in science competitions.

Aside from competitions for student participation, there are a number of teacher competitions and awards out there open to nominations from schools. <u>Siemens</u>, for example, is particularly involved in a variety of competitions for students, as are <u>Dow</u> and <u>Broadcom</u>. And <u>Amgen</u> is one example of a company that holds annual awards for teachers.

5. Hit the Lab

One big area of support for K-12 instructors in STEM fields involves giving teachers experiences outside of the classroom to bring back to their schools. Professional development opportunities are a big focus for funding in general, but a number of science funders are big on the idea of connecting basic education to the cutting edge of research. The idea is that too often, K-12 teachers are using dusty old textbooks, or are not plugged in to the excitement of scientific discovery that makes the field so engaging.

Such funders will send middle or high school teachers to universities to participate in research, and then bring back the experience and lessons learned back to their students. The Research Corporation for Scientific Advancement is one foundation with such a dedicated program. M.J. Murdock Charitable Trust in the Northwest also has a similar program. And while they are more along the lines of straight professional development, ExxonMobil Foundation funds a couple of science teaching academies for teachers, including the Sally Ride Camp.

6. Ditch the Chalk and Pick up an iPad

That's admittedly a snarky oversimplification. But funders do love innovative teaching tools. There are many foundations that get very excited by applying technological tools in classrooms, especially for STEM-related subjects. <u>Gates</u> has given quite a bit to support software for use in education. And the New York Community Trust has made grants to the New York Hall of Science for high-tech learning tools, including <u>one program</u> that has students monitoring and analyzing

pollution in the city. And Chevron funds a program that builds <u>Fab Labs</u> with high-tech manufacturing equipment in schools.

7. Specialize

Inviting students to "get involved in STEM" is probably the worst way to do that. Telling them you want them to get involved in 3D design and printing, or making drones, on the other hand, is much better. Offer an opportunity for teenagers to become "CyberPatriots," hacking away to protect the country from digital threats. Invite girls to start coding and build the next big mobile app. Or for a softer, fuzzier approach, provide a program that culminates in giving puppies veterinary checkups.

All of these are actual examples of K-12 STEM programs that zero in on supercool, real-world examples of science in action. This not only comes off as a far more interesting sell to kids, but appeals to funders that specialize in specific fields, like engineering or computer science.

8. Reform

Okay, this is where some portion of education grantseekers will roll their eyes and think, "Oh boy, here we go." But the truth is, an immense chunk of all education funding involves education reform, standards like Common Core, school choice, and alternatives to public schools. Major funds go to programs like Americorp and to charter schools. The largest education funders in the country, the <u>Gates Foundation</u> and the <u>Walton Family Foundation</u>, are built around such work, and others like <u>Carnegie</u> and <u>GE</u> are also supportive.

If this isn't for you, no problem; there are lots of other opportunities. But there is a lot of philanthropy dedicated to this kind of program right now.

There you have it, IP's crash course on where to find STEM funding for K-12 education. Good luck, and we invite you to browse the guides and keep a close eye on the blog for the latest developments.