# Grant Writing Guide

## Vernier Software & Technology

*Vernier Software & Technology supports the invaluable work of our colleagues in K−college education. This guide provides helpful advice on the writing of grants to fund data-collection technology initiatives for today's science programs. We understand the educational efficacy of probeware use in the classroom and seek to help you bring these important tools to your K−12 schools, college laboratories, and field investigations.*

*—Your colleagues at Vernier*

# Supporting Your Vision

As district funds for science, technology, engineering, and mathematics (STEM) programs are reallocated, many educators are forced to look to alternative sources of funding for technology initiatives in their classrooms. Technology in *your* classroom, however, does not need to be financially out of reach. Plenty of grant money is out there—the trick is finding it, then asking for it a little better than everyone else to help stand out.

Once you've identified the need grant funding can meet, it is time to write a grant proposal. This guide is designed to help you write one successfully. We hope this guide and the provided resources will help secure the funds necessary to help students form a deep understanding of STEM.

**Note: Due to the COVID-19 pandemic, many states, school districts, colleges, universities, and private institutions have had to greatly reduce funding for education while simultaneously asking educators to implement new tools to accommodate different models of remote learning. Though the CARES Act funding deadline expired at the end of July in 2020, Congress may still pass more relief funding that helps educators. For more information, visit https://www.ed.gov/**

# Building Your Idea

Once you have your grant proposal idea, it can feel daunting to take it from start to finish. These three steps will help you take your idea and build it into a strong grant proposal.

1. **Identify the problem.** Think about the road blocks getting in the way of your students' learning. Perhaps students aren't gaining a deep understanding of science, so they need more access to hands-on experiments. From here, you can pinpoint what solutions the grant funding will cover.
2. **Be collaborative.** It will be helpful to meet with your colleagues and brainstorm about the details that may comprise the grant funding proposal. After all, your colleagues may be able to shed light on topics or issues you overlooked. Be open-minded as you discuss goals with your team, and do not be afraid to dream.
3. **Fine-tune the vision.** After you have generated a list of things you would like to include, it's time to get specific. Think about what it would take to actually implement your ideas and make them a reality. For example, let's say you want to build a STEM lab in your school. It may be helpful to ask these questions before you write your proposal.
   - What type of equipment is needed?
   - What software is necessary?
   - How will you train teachers either in your school or district to use this new technology?
4. **Inventory your needs.** Make an inventory of items and services that you will need to accomplish your vision. Include a complete parts and accessories list that specifies order codes and prices. Also, itemize the consumables (e.g., solutions and chemicals) used in science experiments.

# Identifying Your Funding

Now that you have an idea, you need to find a funding source. Many sources provide funding, including federal and state agencies, major corporations, small businesses, foundations, local organizations, and various educational districts. A number of these sources post information about their funding initiatives on the internet.

A simple Google search will produce many web pages with information about funding sources and grant writing. While it may seem logical to look first to governmental agencies and large corporations for funding, do not overlook your local PTA, service organizations, or district foundations—they often have funding available that goes unused.

Vernier Software & Technology is proud to partner with a number of companies and organizations that offer a variety of grants, funding, and other awards for educators seeking to further STEM education in their communities. You will find a list of these resources in the **Getting Help** section of this guide.

# Writing Your Proposal

Once you have identified a few possible funding sources, it is time to put pen to paper. The following are helpful tips on writing a successful proposal:

1. **Stick to the facts.** Avoid abstract ideas or generalities about the state of education—there's more power sticking to factual, specific details about your case.
2. **Communicate effectively.** Beware of jargon and language specific to your field. You don't know the background of the proposal readers; therefore, it is best to write with precision and common language.
3. **Do your homework.** Take the necessary time to get to know your funder and their guidelines. Invest the time to find out a bit more about those organizations and to fully understand their funding criteria. Organizations' missions vary widely, as do their grant submission periods and project completion date requirements.
4. **Use the right format.** Make sure you follow any format guidelines provided carefully. It may be beneficial to first contact a representative through a query letter, telephone call, or email. Once contact is established, obtain a copy of the grant guidelines and then follow the guidelines closely.
5. **Begin with a summary.** This brief summary should distill the nature of your request—the problem, the proposed solution, etc.—so that your readers have a clear vision of what you need as they review the rest of your proposal.
6. **Be realistic.** Do not ask for more than you need. Make sure your figures are correct and keep records of how those figures are calculated.
7. **Check your materials carefully.** Many strong grant proposals have been denied simply because they were missing materials. Make sure your application is complete.
8. **Take your time.** Thoughtful, well-written proposals are received far better than hurried ones. Give yourself time to write.

9. **Read the instructions, then read them again.** Carefully review the instructions a few times to ensure that your grant follows guidelines.
10. **Be on time.** Like so many things, punctuality in grant writing is key to success. Write the grant deadline on whiteboards, in calendars, and on sticky notes posted around your office to ensure the deadline is at top of mind.

In addition to these tips, it would be wise to get a fresh pair of eyes to proofread the proposal before submission.

# Putting It All Together

Though every grant application will have unique requirements and expectations, it may be helpful to follow the format below and have this information saved on your computer to use for future grant applications:

**Title Page** Fill out all of the basic information, such as your name, address, telephone number, who the grant is for, the name of the program, the total cost of the program, and a brief, but concise summary of the program needs and goals.

**Statement of Problem** Describe your problem and how you plan to solve it. This part needs to be deeply moving, compelling, and motivating. Focus on the need and your objectives. Describe who will benefit from this program, and highlight how many people your program will serve.

**Goals** Define your goals and objectives. State your vision. Create enthusiasm and excitement for how your program goals will improve and enrich a poor situation.

**Plan of Action** Provide details for how you will meet your goals and objectives. Explain the materials and services you will need and exactly how they will be used. Describe a clear plan of action, and explain how you will implement your plan. If this is a time-related program, show a detailed timeline.

**Staff and Facilities** Identify everyone involved in your project. Determine how you or your staff will adhere to the plan. Describe the facilities and any equipment necessary for the success of your program. If appropriate, mention whether you or others have had special training that relates to your program.

**Evaluation** Document how you will determine the success of the program throughout its duration. Detail how you will determine if your goals and objectives have been met. Incorporate requirements set forth by the funding organization.

**Budget** Define program costs and expenses. Be sure to include everything from equipment to training. Be realistic and accurate with budget information. Identify who will manage the money and

how they will account for all financial dealings.

# Supporting Your Proposal

Many funders are interested in seeing literature to substantiate your claim that your idea will improve instruction in your classroom. We have compiled a list of support articles describing the benefits of the use of computers, calculators, and handhelds for data collection in the classroom. Many of the articles, including Vernier's white paper, may be accessed directly on the internet. In addition, you will find a list of reference articles at the end of this document.

# Following Up on Your Grant

Once you have been awarded a grant, it is important to follow up with the funder regarding expectations and payment information. Even if you are not awarded the grant, follow up with the funder to learn details about the organization's decision not to fund your proposal; such information may prove instructive in your next proposal.

# Getting Help

If you are still feeling intimidated by the writing process, don't worry—there are some wonderful, useful sites available to guide you every step of the way:

**Fundsnet Services.com**
http://www.fundsnetservices.com/

This is a comprehensive source for grant writing that includes links to sites on writing successful grants as well as applications, forms, and fundraising information.

**Non-Profit Guides**
http://www.npguides.org/index.html

Designed to help you win grant funds, this includes a guide to writing funding proposals, sample letters, budgets, and applications as well as links to other grant writing sites.

**Candid**
http://www.candid.org

Candid is a nonprofit organization that connects grant writers with grant funding organizations.

**AAAS Science Magazine**
http://www.sciencemag.org/careers/where-search-funding

This site provides a list of where to get funding and a whole section on how to get funding. There are tool kits, discussions on common mistakes, and a brief tutorial on how to best follow submission guidelines.

**STEMfinity**
https://www.stemfinity.com/STEM-Education-Grants

This site provides a list of links to grants supporting STEM in the classroom for every state.

**University of Wisconsin-Madison Libraries**
https://researchguides.library.wisc.edu/proposalwriting/websites

This site provides links to resources for both federal and non-governmental funding and also offers examples of good proposals along with links to discussions about the elements that make an effective proposal. Grant-writing tips, budgeting information, and other funding guidance are included.

# Grants from Partners

Our partners offer a variety of funding opportunities for science educators. Take a look at these grants to see if your proposal is a good fit.

**LEGO® Education**
https://education.lego.com/en-us/shop/grants-and-funding

**LabArchives**
https://www.labarchives.com/lagrant/

**Scratch Foundation**
https://www.scratchfoundation.org/what-we-fund

# Awards from Vernier Software & Technology

We are happy to partner with a few organizations to provide grant opportunities for educators. We also have an engineering contest that could go far in funding an engineering education-focused project. Learn more about these opportunities below.

https://www.vernier.com/about-us/grants/