

Be a  
**WINNER!**

A Science Teacher's Guide to Writing Successful Grant Proposals



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# The Top 10 Reasons to Write a Grant Proposal

## CHAPTER 1

**Y**ou may have a multitude of reasons for seeking a grant, and no doubt you already have an idea for a grant proposal in mind. Although the primary goal for most science teachers is to improve student learning, there are many other reasons for writing a grant, including some that you may not have previously considered. As you read over the following list, open your mind to the possibilities that a grant can have to help you positively influence your students' growth while expanding your professional life. You'll no doubt begin visualizing projects, investigations, and opportunities that extend well beyond your initial ideas.

### **Standards**

You may want to begin the grant writing process by examining your district and state standards, as they may be helpful in guiding you in the selection of project ideas. Additionally, the NGSS performance expectations, with their clearly delineated connections to science and engineering practices, represent a wealth of potential project ideas. A quick perusal of the NGSS performance expectations for your grade level will no doubt inspire you to integrate experiences for your students that engage them in connecting their learning to the world around them.

### **Funded Grants**

Although replicating a previously funded grant is not recommended, you may find that reading over successful grant applications will inspire you to integrate an original twist into an idea that has proven merit. For instance, the Toshiba America Foundation posts examples of previously funded grants for K–5 and 6–12 classrooms on its website. Reading the funded grant proposals may help you to clarify the type of grants that they are interested in.

### **Community Resources**

#### **The School Community**

You will find that students are often more motivated to solve an actual problem that resonates with them than to conduct an investigation that is not well linked to a real-world setting. One way to pinpoint interesting questions for investigation is to facilitate a class discussion that deals with issues and problems that are typical for the school community. Prior to the discussion, the students can engage in conversations with the school nurse, principal, teachers of special needs students, cafeteria manager, and others by asking them to describe problems they encounter during the course of a typical day.

#### **Your Local Community**

Whether you choose to define your community as your school or choose to broaden your scope to encompass your school district's geographical area, there exists a wealth of resources you can use to foster and sustain your dream. Reading the local newspaper will often provide ideas for potential investigations that are closely related to the community. A plethora of topics, such as groundwater

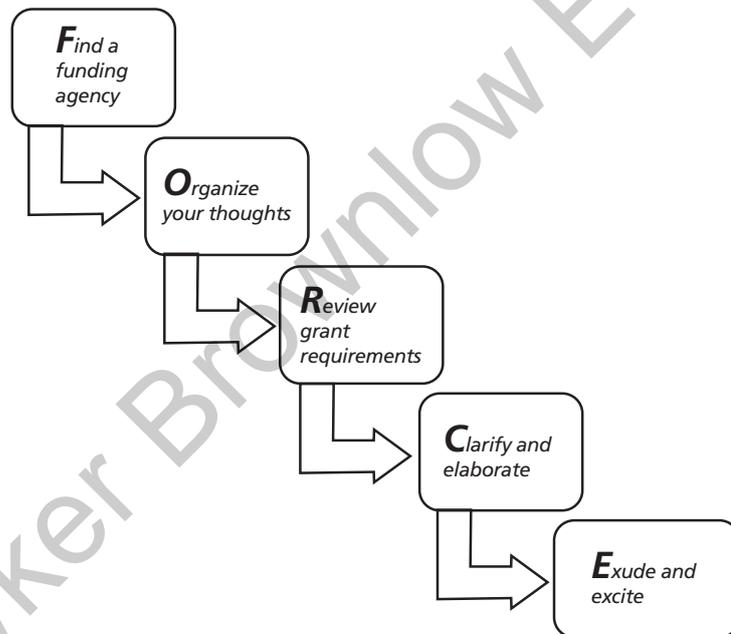
grouping, individualized education program (IEPs), English language learners (ELLs), and so on.

### Grant Writing Is a Process

You may find the approach depicted in Figure 3.2 useful as you begin your journey toward a successful grant proposal. May the FORCE be with you!

Figure 3.2

Use the FORCE Acronym When Starting Your Grant Proposal.



#### Find a Funding Agency

You can begin the process of locating a funding agency by carrying out a search on the internet. If you are a member of the National Science Teachers Association (NSTA), consider perusing the NSTA e-mail lists and reading the monthly *NSTA Reports* to identify sources of potential funding. Examining the websites of professional organizations, attending professional development workshops, and engaging in discussions with colleagues who have been successful in receiving classroom grants can also help you to locate funding agencies. Additionally, most

*Perhaps no other topic in ecology is as fascinating to my students as the topic of rain forests, yet I have no field experience or formal training in tropical ecology. I believe that students learn best through field-based, inquiry-driven curriculum. This philosophy is supported by the NSTA “Position Statement on Scientific Inquiry,” which recommends that science teachers “plan an inquiry-based science program for their students by developing both short- and long-term goals that incorporate appropriate content knowledge.”*

*Attendance at the Summer Institute Connections: Tropical and Temperate America will provide me with opportunities to network with teachers, scientists, local biologists, and archaeologists involved in conservation projects. It will also provide the background necessary to develop field protocols that will engage my students in using tropical forest field techniques to monitor deciduous forest plots on our school property.*

### **Important Points to Remember**

- Frame the need in terms of student learning.
- Let your passion for your idea shine through your writing.
- As with the other portions of the grant proposal, write concisely when composing the needs statement.
- Use data related to your students or school district to sell your idea to the funder.

### **Exercises**

1. What needs exist in your community that could lend themselves to a potential grant proposal?
2. What statistics or evidence do you have that can best support your identified need?

### **Your Turn!**

Using the “Writing the Needs Statement” template in Appendix 1 (p. 103), describe the need and potential impact of your project.

## Describing the Target Population

Granting agencies want to know who is benefiting from their support, with most requiring accurate demographic information. Use the “Documenting Target Population Demographics” template in Appendix 1 (pp. 104–105) to guide the data-mining process. You should consider including the levels of information listed next in your description.

### ***Demographics of Your Students or Classroom***

There are a number of factors that can be used to describe the students in your classroom. At a minimum, you should include the total number of students benefiting from your project and their age or grade level, and the percentage of minority students, ELL students, gifted students, and special education students. If appropriate for your setting, you could describe the number of students who may be economically disadvantaged or the gender ratio of your class, particularly if your proposed project is designed to encourage minority and female students to pursue STEM (science, technology, engineering, and mathematics) careers.

### ***Demographic Makeup of Your School District***

Incorporating information about your school district helps grant readers visualize your setting. When deciding what information to include, *make sure the data help illustrate the need*. Think about any compelling statistics that will convince a funder that your proposal will benefit a needy group of students. If your district has a large underserved population, you can help justify the need through the use of statistics such as the percentage of students who come from single-parent homes, are receiving free and reduced lunch, or are attending Title I schools. Other school data that you may be able to use to illustrate the need for your project include state test scores, graduation rate, dropout rate, or the percentage of students who enroll in AP courses. If you have your eye on technology equipment, consider including the student-to-computer ratio.

### ***Demographic Makeup of Your Town or City***

Demographic information about your school district’s residents can also be used to convince the funder of the existence of

**Tip!** Demographic data change; make sure that yours are up to date when you apply for grants.



**Y**ou've identified a dream, written a grant proposal, and received notification either via e-mail or letter that your proposal will be funded. Now begins another exciting period—making your dream a reality. It is during this time that you will engage your students in science and engineering practices and challenge their minds. This will be a very rewarding experience for you, for your students, and for any of your colleagues involved in the project. Please keep the suggestions in this chapter in mind as you proceed with carrying out activities related to your grant.

### **Managing Your Funded Project**

The first bit of paperwork related to receiving the grant involves writing a brief handwritten thank-you note to the funding agency. This is an instance in which a typed letter or e-mail will not suffice; a handwritten note is a nice gesture to show

**Tip!** Take care of the project director—you! Being a classroom teacher is stressful enough without the added responsibility of managing a project and reporting the project's progress to the funding agency. Aside from the general suggestions of staying positive and organized, eating right, exercising, and resting, you may want to request release from a small portion of your teacher duties to be able to take care of the grant's day-to-day activities. For example, you may want to request to have your homeroom period dedicated to planning experiments and discussing the project results with students. Approach your school principal, and have a conversation with him or her about the benefits your students will receive as a result of implementing the project. It is a good idea to already have some of your colleagues collaborating with you to show that you will be able to reach more students, which will add to the power of your request. If you teach at the high school level, discuss with your administration the possibility of dedicating a portion of your teaching schedule to your project, in which students can conduct related experiments and receive credit for an elective science class.

does not produce the desired results, you may have to call the business manager or superintendent. As a final alternative, you can call the grant manager. Since your project is most likely one that will be completed within one school year, try to spend all of your funds within the fiscal year in which you received your grant or you may run the risk that the district will roll your money into a common account.

**I need an extension after the deadline to finish the project due to school days lost as a result of snow days in our school district. What should I do?** Estimate the effect of these lost days on your project and develop a new timeline to try to remediate the situation. As soon as you have this information, contact the funder, explain the reasons why your project will be delayed, propose the new deadline, and ask for a permission to proceed with the revised timeline.

**I am trying to collaborate with other teachers in the school, but no one seems willing to commit.** Don't let this discourage you; perhaps your peers don't feel they have enough information to make a com-

mitment. Talk to your principal about allowing you to make a short presentation during a teacher planning day or faculty meeting so that you can explain what you are doing, how your students will benefit, and how you envision your collaboration with the teachers in the school. Demonstrate an upbeat and confident attitude as you convey your excitement with the idea of collaborating with them.

**A local TV station that would like to produce a short segment about our project has contacted me.** Discuss the offer with your administration, and if they give you permission, inform the TV station that it is welcome to do the segment