

ALTERNATIVE FUNDING FOR SCIENCE & STEM EDUCATION

FLINN
SCIENTIFIC

A RESOURCE FOR STEM
EDUCATORS LOOKING FOR
ALTERNATIVE (DYNAMIC)
FUNDING SOURCES TO
ENHANCE THEIR PROGRAMS

WHAT YOU NEED TO KNOW ABOUT GRANTS &
PROPOSALS THAT EXIST WHICH CAN
TRANSFORM THE WAY YOU TEACH!



Exploring Grants and Alternative Funding Sources to Enhance Student Learning in Science & STEM.

As your trusted lab partner, FLINN understands there are funding shortfalls and inconsistency across the nation from a budgeting and spending perspective. Unfortunately at the moment there is not a per student dollar amount allocation for science and STEM however there is dynamic funding available through alternative sources...

We have put this session together in order to help you potentially secure some additional funding through the use of grants and successful proposal applications. Overall, we would like to help you enhance student learning and facilitate teacher instruction through having the right resources available to offer the most comprehensive program possible in your situation in the areas of science and STEM education across the K-12 spectrum.

OVERVIEW OF THIS SESSION

1. **Understanding funding sources in education**
2. **Impact of budgets on student learning**
3. **Basics of Grants and Proposals**
4. **Preparing for grant applications**
5. **Proposal Writing 101 / 102**
6. **Funding Sources and Considerations**
7. **Count on FLINN to help you get your grant!**

When the time comes, we are prepared to help you develop and execute the best solution for your needs. In this document, we will explore some background information that will help to guide the decision-making process in school grants and alternative funding formats.

*These materials contain content provided by third parties and are being distributed for your convenience only. We make no representations about the accuracy of these materials and urge you to consult federal, state, and local public health guidelines for the most up-to-date information on dynamic funding sources available for various science & STEM programs.



Online

www.flinnsci.com

Email

flinn@flinnsci.com

Phone

1-800-452-1261

Fax

1-866-452-1436 (toll free)

Mail

Flinn Scientific, Inc.

P.O. Box 219, Batavia, IL

60510-0219

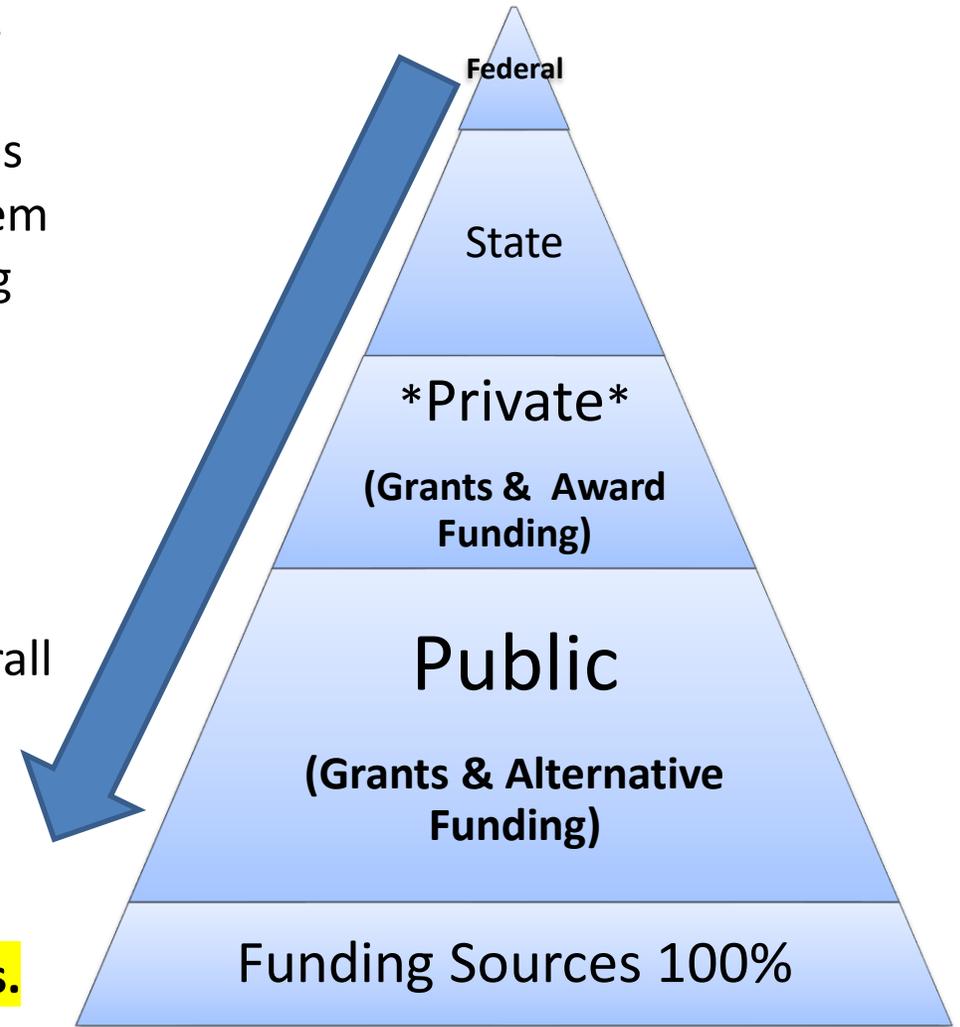




Understanding Funding Sources in Education

There are multiple sources of funding for schools and educational programs. It is a top-down hierarchy system where some of the funding comes from the federal level, then the state, then potentially private sources and the bulk from public (local municipal) sources that contribute to the overall aggregate budgeting.

Many schools use alternative funding from grants to offer amazing science & STEM programs.



1. Congressional Research Service <https://crsreports.congress.gov> RL32159
2. Flinn Scientific Professional Learning Series 2020

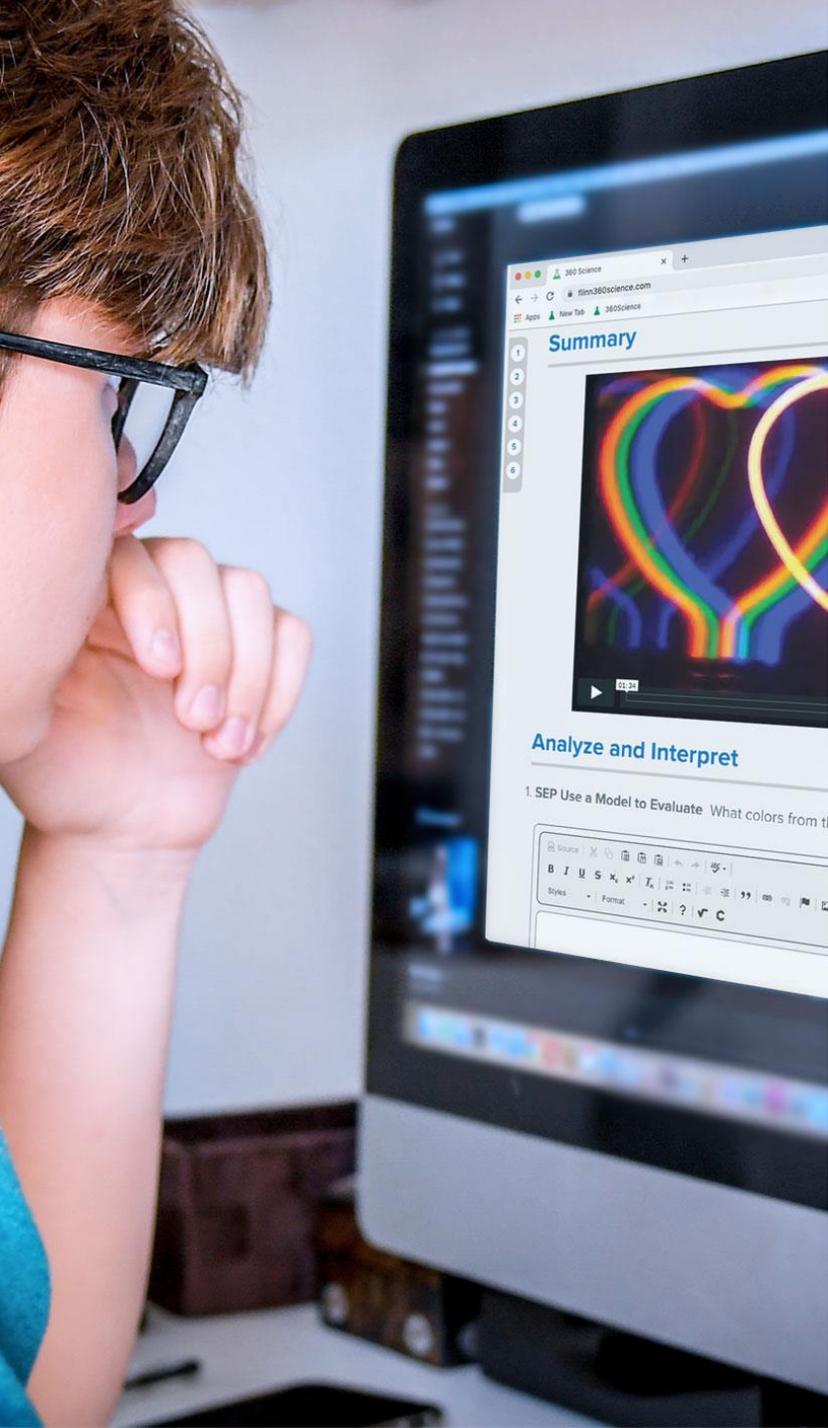


How funding directly impacts your delivery of science and STEM courses?

Science and STEM are hands-on programs that require materials and equipment in order to facilitate the authentic learning and engagement of your students. Having access to the materials, chemicals, apparatus, consumables and digital resources helps to facilitate teacher instruction and enhance student learning.

Not having a budget that allows for the purchase and consumption of these resources will have a negative impact on your science and STEM program if you cannot perform certain activities (investigations) because you do not have the materials in the school.

Traditionally, there have been outside sources of funding available to augment science department budgets through grants, benefactors, and special programs that exist in both the public and private domain.



What can occur if the school departmental budget is not adequate?

- The impact on science programs when adequate funds are not available include the following:
 - Altered curriculum
 - **Limited resources equal loss of hands-on experience when labs/experiments are not able to be performed**
 - **Achievement gap vs. student outcomes**
 - Selective curricular expectations due to budgetary restraints creates inconsistency across grade levels
 - **Potentially fewer students continuing into a STEM trajectory in post-secondary and career aspirations**

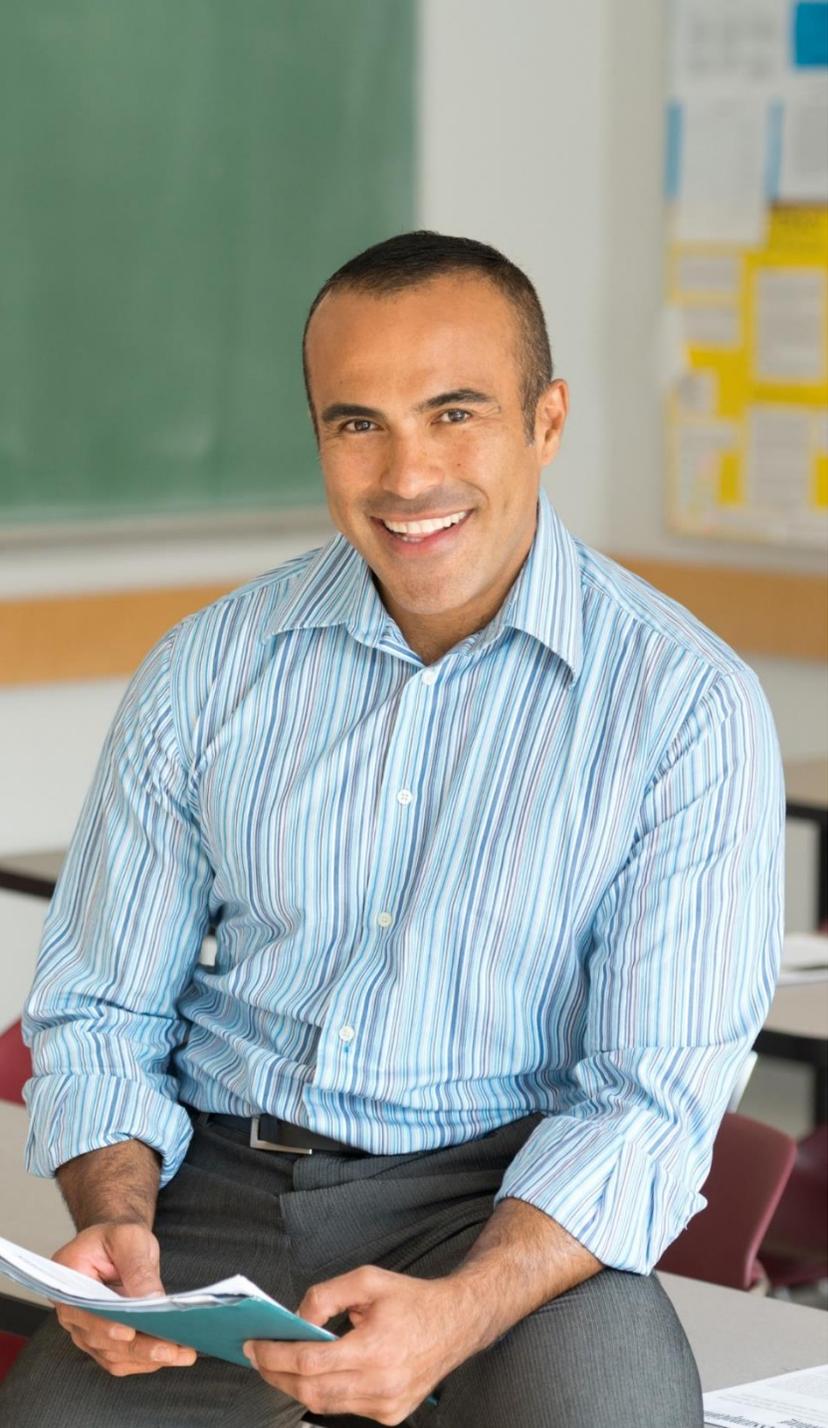


Why should I apply for a grant?

In science and STEM education today, most teachers and administrators are interested in obtaining classroom grants for the purpose of extending the learning opportunities for their students and themselves. This might be achieved by adding an expensive piece of equipment to the science lab, taking students on a research field trip, obtaining funding to attend a professional development activity or event that will enhance your teaching, or seeking an opportunity available specifically to science educators.

Consider the following points:

- **Many grant programs do not receive enough qualified proposals.**
- **If you don't apply, you'll never win!**
- **Receiving a grant may positively impact your students.**
- **The more proposals that you write, the easier it gets.**

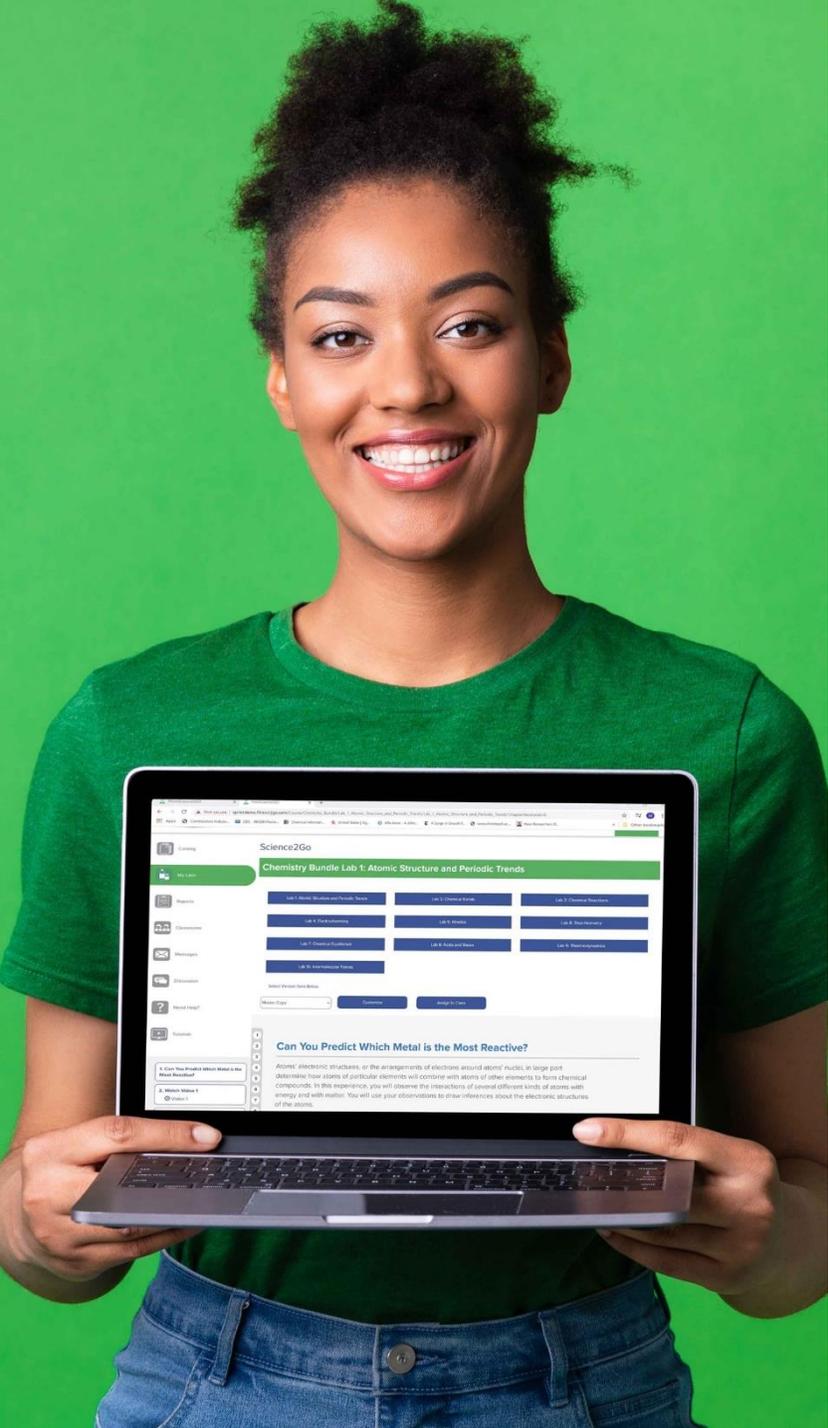


Understanding Grant Proposal writing

A well-formed grant proposal is one that is carefully prepared, thoughtfully planned, and concisely packaged.

The potential applicant generally seeks first to become familiar with ALL of the pertinent program criteria of the funding institution and investigates alignments.

Before developing a proposal, the potential applicant may refer to the information contact listed in the agency or foundation program description to learn whether funding is available, when applicable deadlines occur, and the process used by the grantor agency or private foundation for accepting applications.



What would I use a grant for in my classroom?

Take inventory of what your students and science program needs to deliver a complete curriculum and meet **Common Core State Standards and Next Generation Science Standards or State STEM / Science alignment standards.**

Divide the inventory into categories other than 'science supplies'

- ✓ Technology to enhance learning (software to manage your lab; online courses to supplement student learning)
- ✓ Safety (safety materials, equipment, etc.)
- ✓ Safety courses & certifications
- ✓ Lab safety equipment including fume hoods, cabinets etc.
- ✓ New equipment to replace outdated and remain compliant with safety standards, etc. (digital microscopes)
- ✓ Chemicals
- ✓ Safety chemical cabinets for chemicals etc.
- ✓ Instructional materials required
- ✓ Professional development / learning opportunities



What resources exist to obtain funds at the school level for you today?

- **Parent/Teacher organizations** – *provide a wish list every year*
- **Explore fundraisers** *to support the science department*
 - Be specific what the funds will support
- **Local outreach to businesses** *for donations to support specific needs/equipment purchases, etc.*
- **Collaborate with other departments** *in school or at district level for effective budget utilization*
 - IT department or Risk Management: funds for software purchase/license purchase of chemical inventory program; licenses for classroom sets of online learning programs
 - Risk Management: Lab safety equipment, professional development in lab safety for students and teachers
 - Curriculum coordinators: Instructional materials; professional development
 - School construction/renovations for science: Repair and Replacement Funds
- **Set up teacher donation request websites:** *Donors Choose. Adopt a Classroom, Classwish, GoldStar Registry, iLoveSchools, etc.*



Background Preparation for Grants & Proposals: Get Informed First!

- a. **Survey your Colleagues at different schools** — ask them relevant questions to help your proposal and justify the funding request.
- b. **What is your annual science budget?** For supplies?, for equipment?, for travel?, for PD?, for curriculum? For digital content?
- c. **Where do you get your current funding?**
- d. **How have you supplemented your budget?**
- e. **What is the process to demonstrate needs to your School Administration & Community?**
- f. **Who else locally has been successful in receiving a grant / providing grants?**



Background: Engage Educational Leaders!

- a. **Ask for their support** – in time, support, and investment. *360° perspective needed.*
- b. **Share your vision for improvements and needs** – *What are you going to do with more support? Reflection on school / district?*
- c. **Demonstrate Impacts on Teaching & Learning** – *Showcase Success Progression – You are your best promoter – Provide justification – It is competitive out there!*



Background: Communicate your needs!

Share your Vision – What do you see? Improvement? Achievement? Future Leaders? Progression?

What specifically do you need? – Recommendations

Why do you need it? - Justification & Rationale

Look Professional – Proposals & Application & Support info

Ask Professionally – Gratitude, not entitled.

Expect the Best – from your students and your school administration – they expect the best of you!

Only Quality – Investors expect the best from their investments – value not price!

***FLINN Can help you with each of these aspects of successfully writing a proposal for a grant**

Background: Advocacy!

Givers and Takers – Align with those that are responsible stewards and share your goals/objectives for learning.

Respect Loyalty – Investors of time and money deserve respect and loyalty.

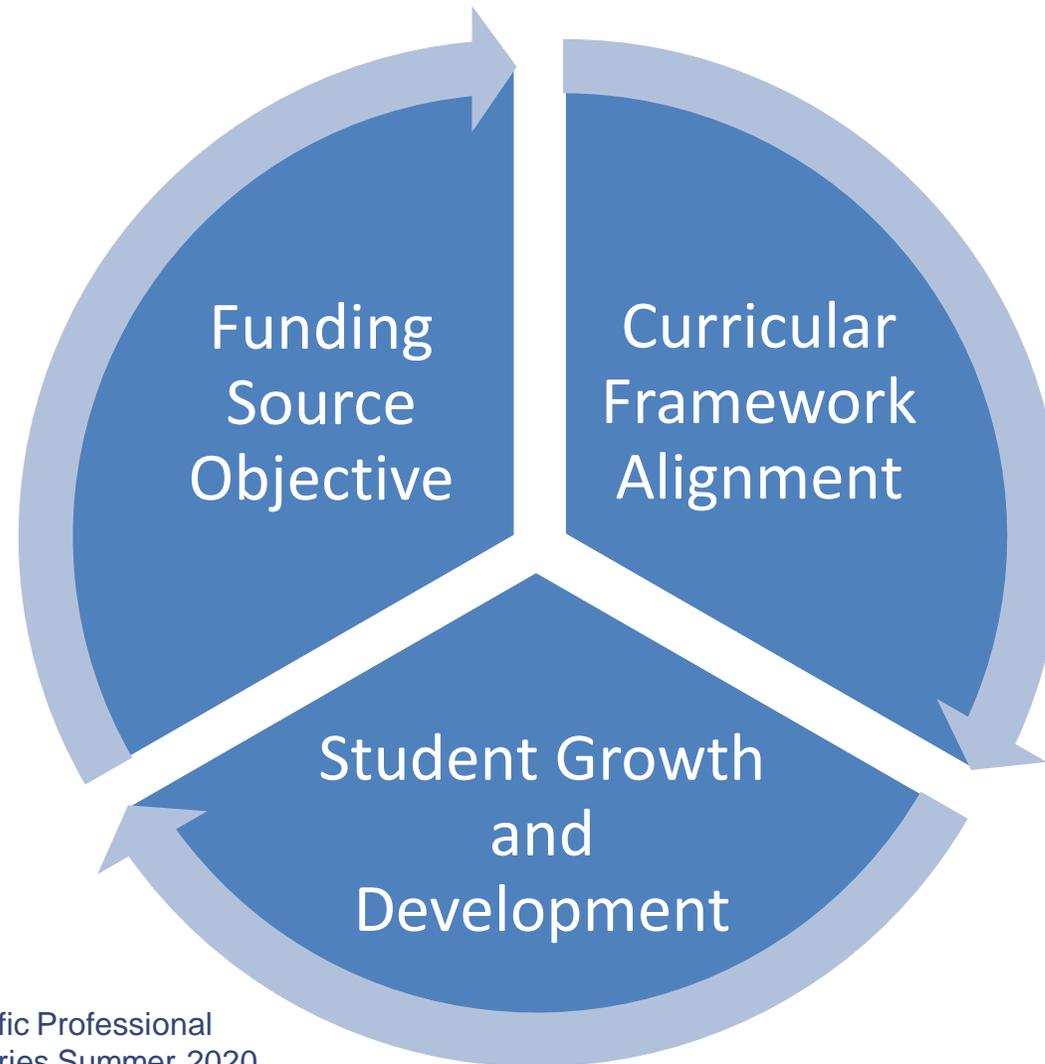
You've done the Ground Work, Now Create your Unique Strategy:

- a. Next steps to achieve short-term and long-term goals
- b. Organize your thoughts and start to plan forward for writing your proposal for alternative funding
- c. Use trusted thought leaders in the industry for insight and assistance
- d. Stay enthusiastic – it will be reflected in the proposal!





ALL Successful Grant Applications incorporate the following pillars into their unique proposal:

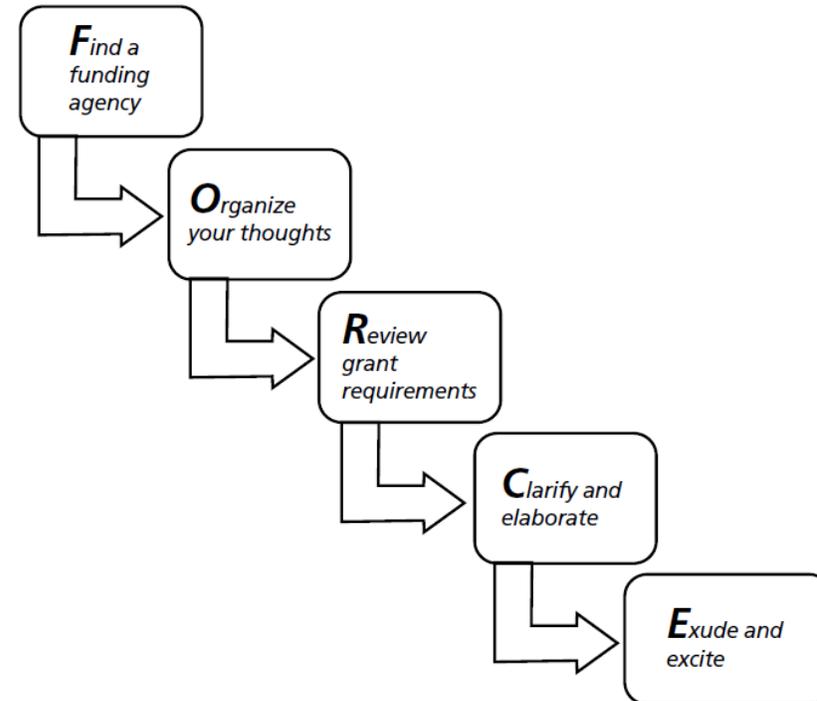


1. Flinn Scientific Professional Learning Series Summer 2020



Before you begin to write your grant proposal, please use the 'Force' -

Use the FORCE Acronym When Starting Your Grant Proposal.





Proposal Writing for Science

Grant seekers should know that the basic requirements, application forms, information, and procedures vary among grant-making agencies and foundations. **There are some similarities, but each grant needs to be 100% customized for consideration and compliance. DO NOT RECYCLE.**

Federal agencies and large foundations may have formal application packets, strict guidelines, and fixed deadlines with which applicants must comply, whereas smaller foundations may operate more informally and even provide assistance to inexperienced grant seekers. **Make sure you understand your target funding source and align with their objectives.**



Proposal Development Strategy 101

The first step in proposal planning is the development of a clear, concise description of the proposed project.

To develop a convincing proposal for project funding, the project must fit into the philosophy and mission of the grant-seeking organization or agency; and the need that the proposal is addressing must be well documented and well articulated.

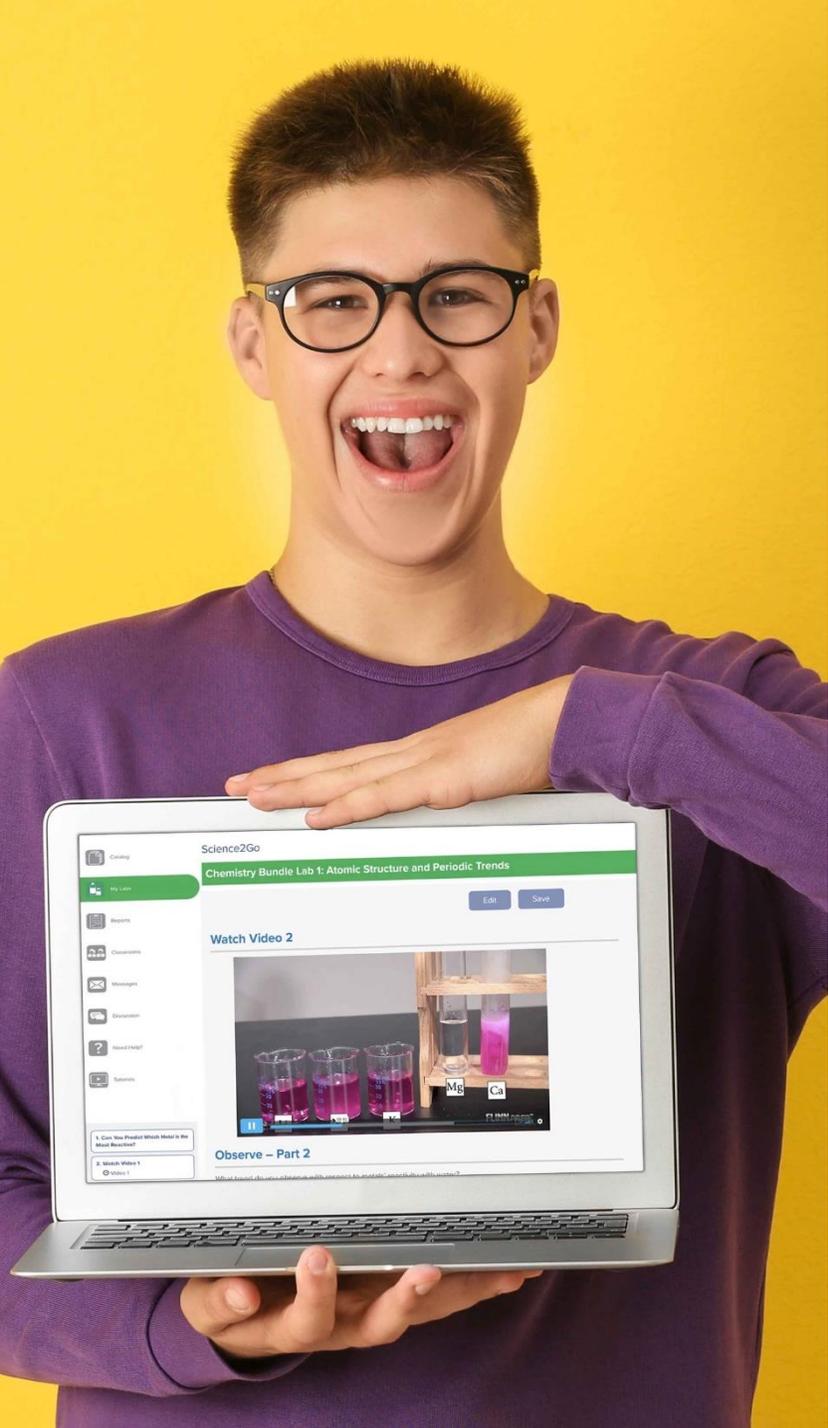
Typically, funding agencies or foundations will want to know that a proposed activity or project reinforces the overall mission of an organization or grant seeker, and that the project is necessary.
ALIGNMENT IS ABSOLUTELY CRITICAL!



Proposal Development Strategy 102

To make a compelling case, the following should be included in the proposal:

- nature of the project, its goals, needs, and anticipated outcomes;
- how the project will be conducted;
- timetable for completion;
- how best to evaluate the results (performance measures);
- staffing needs, including use of existing staff and new hires or volunteers; and
- preliminary budget, covering expenses and financial requirements, to determine what funding levels to seek.



Community Involvement is Critically Important

For many proposals, community support is essential. Once a proposal summary is developed, an applicant may look for individuals or groups representing academic, political, professional, and public organizations which may be willing to support the proposal in writing.

The type and caliber of community support is critical in the initial and subsequent review phases. Numerous letters of support can influence the administering agency or foundation.

An applicant may elicit support from local government agencies and public officials. **Letters of endorsement detailing the exact areas of project sanction and financial or in-kind commitment are often requested as part of a proposal to a federal agency.**

Several months may be required to develop letters of endorsement, since something of value (e.g., buildings, staff, services) is sometimes negotiated between the parties involved.



Community Involvement Win-Win Outcomes

While money is the primary concern of most grant seekers, thought should be given to the kinds of non-monetary contributions that may be available.

In many instances, academic institutions, corporations, and other nonprofit groups in the community may be willing to contribute 'in-kind' technical and professional assistance, equipment, or space to a worthy project.

Not only can such contributions reduce the amount of money being sought, but evidence of such local support is often viewed favorably by most grant-making agencies or foundations.



The use of a 'Concept Paper' initially

The grant seeker, after narrowing the field of potential funders, may want to approach the most likely prospects to confirm that they might indeed be interested in the project. **Many federal agencies and foundations are willing to provide an assessment of a preliminary one or two page concept paper before a formal proposal is prepared. Take advantage of these opportunities!**

The concept paper should give a brief description of the needs to be addressed, who is to carry out the project, what is to be accomplished, by what means, how long it will take, how the accomplishments will be measured, plans for the future, how much it will cost, and the ways this proposal relates to the mission of the funding source.



Overall considerations for writing a successful grant application

An effective grant proposal has to make a compelling case. Not only must the idea be a good one, but so must the presentation. Things to be considered include the following:

- All of the requirements of the funding source must be met: prescribed format, necessary inclusions, deadlines, etc.
- The proposal should have a clear, descriptive title.
- The proposal should be a cohesive whole, building logically, with one section leading to another; this is an especially important consideration when several people have been involved in its preparation.
- Language should be clear and concise, devoid of jargon; explanations should be offered for acronyms and terms which may be unfamiliar to someone outside the field.
- Each of the parts of the proposal should provide as brief but informative a narrative as possible, with supporting data relegated to an appendix.



Proposal Basic Components 'Top 10 List'

The basic sections of a standard grant proposal include:

1. **Cover letter**
2. **Proposal summary or abstract**
3. **Introduction describing the grant seeker or organization**
4. **Problem statement (or needs assessment)**
5. **Project objectives**
6. **Project methods or design**
7. **Project evaluation**
8. **Future funding**
9. **Project budget**
10. **Enthusiasm and Energy!**



Funding Sources for Grants

Once the project has been specifically defined, the grant seeker needs to research appropriate funding sources.

Both the applicant and the grantor agency or foundation should have the same interests, intentions, and needs if a proposal is to be considered an acceptable candidate for funding.

It is generally not productive to send out proposals indiscriminately in the hope of attracting funding. Grant-making agencies and foundations whose interest and intentions are consistent with those of the applicant are the most likely to provide support. **'Qualified proposals count!'**

An applicant may cast a wide, but targeted, net. Many projects may only be accomplished with funds coming from a combination of sources, among them federal, state, or local programs and grants from private or corporate foundations. **Be creative and enthusiastic!**



Federal Grant & Funding Database

The best funding resources are now largely on the internet. Key sources for funding information include the federal government's *Assistance Listings* at <https://beta.sam.gov> and the Foundation Center, <http://www.foundationcenter.org> the clearinghouse of private and corporate foundation funding.

For a summary of federal programs and sources, see CRS Report RL34012, *Resources for Grantseekers*, by Maria Kreiser and other CRS reports on topics such as community or social services block grants to states, rural development assistance, federal allocations for homeland security, and other funding areas.



Funding Sources close to home

There are many types of foundations: national, family, community, corporate, etc. For district or community projects, as a general rule, it is a good idea to look for funding sources close to home, which are frequently most concerned with solving local problems. Corporations, for example, tend to support projects in areas where they have offices or plants.

Most foundations only provide grants to non-profit organizations (those registered by the Internal Revenue Service as having 501(c) tax-exempt status), though the Foundation Center publishes information about foundation grants to individuals. School districts typically qualify for this non-profit organization (NPO) status.

Once a potential grantor agency or foundation is identified, an applicant may contact it and ask for a grant application kit or information. Federal agencies may refer applicants to the website Grants.gov (<http://www.grants.gov>).

Later, the grant seeker may ask some of the grantor agency or foundation personnel for suggestions, criticisms, and advice about the proposed project. In many cases, the more agency or foundation personnel know about the proposal, the better the chance of support and of an eventual favorable decision.

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Deadline for the Shell Science Teaching Award
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www.nsta.org/shell



Shell Foundation and the NSTA Science Teaching Awards



WIN A SCIENCE LAB Support Package for Your School

WHO: K-12 teachers of science located in regions of
Shell assets

WHAT: The 2020–2021 Shell Science Lab Regional
Challenge, a program of NSTA

HOW: Share your exemplary approach to science lab
instruction in your school using limited school
and lab resources

WHY: Over \$420,000 in prizes will be awarded, including
three principal and science teacher grand prize
trips to NSTA's National Conference on Science
Education

WHERE: For more information, visit
<https://www.nsta.org/shell-science-lab-regional-challenge>
or write to ShellScienceLab@nsta.org

1. <https://www.nsta.org/shell-science-lab-regional-challenge>
2. ShellScienceLab@nsta.org



Funding / Grant Sponsors (Live Links)

<https://info.betterlesson.com/matching-grant-program-overview>
(\$30,000 - \$150,000 per grant available)

<https://www.codegameschallenge.org/> (\$1000-2000 awards)

<https://educatorsusa.org/our-programs/micro-grants/>
<https://educatorsusa.org/our-programs/micro-grants/>
(\$250 - \$5000 per grant)

<https://www.honda.com/community/applying-for-a-grant>
(\$20,000 - \$75,000 grants available for science and STEM)

<https://www.neafoundation.org/for-educators/learning-and-leadership-grants/>
(\$2000 - \$5000 grants available)

<https://www.donorschoose.org/> (ongoing grants)

<https://www.dell.org/how-we-fund/apply/> (on-going grants)

<https://www.naiku.net/grants/>



More possible sponsors / donors

https://www.sony.com/en_us/SCA/social-responsibility/giving-guidelines.html

<https://steamuniverse.com/webcasts/2017/09/steam-funding-stem-092617.aspx?tc=page0>

<http://www.toshiba.com/taf/612.jsp> (STEM grants available)

<https://beta.sam.gov>

<http://www.foundationcenter.org>

1. Flinn Scientific Professional Learning Series Summer 2020



Flinn Proposal for Science and STEM template for securing funding for various initiatives

Flinn Scientific has the experience needed to assist you in generating a successful proposal for different grants and programs. We have a proposal template that can be used for local, state, federal and international Science & STEM programs.

Contact FLINN to schedule a conversation with one of our funding specialists who can help you align your potential grant with one of our templates. We have been assisting educators and school district leadership with securing funding for science and STEM program enhancements and also assisting with some COVID-19 funding for remote and blended learning applications.

Contact us today to start your dialogue about grants and proposals for your science & STEM program!

1-800-452-1261 flinn@flinnsci.com www.flinnsci.com

We are here to help you enhance your science and STEM programs!

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Ask about our custom district solutions designed to support safety in schools and the continuity of learning for students.

- Custom safety and professional development/learning proposals to ensure full school safety
- Full PPE for students, faculty, and support staff
- Blended science learning solutions that provide continuity of lab instruction for both onsite & remote learners

