HILLSBORO-DEERING SCHOOL DISTRICT

PROPOSAL NARRATIVE: THE GOAL OF PROMOTING LIFELONG LEARNING

INTRODUCTION

Hillsboro-Deering Elementary School is a part of the Hillsboro-Deering School District in New Hampshire. This vital, high-spirited learning community has a student body of about 450 young ones from Kindergarten to Grade 5. The school is found in a rural town with a Colonial history nestled in the hills of New Hampshire, close to the homestead of President Franklin Pierce. We appreciate the opportunity to apply for the Accelerating Promising Practices for Small Libraries Grant. The elementary school library is an important part of student life. Every child in the school visits it at least once a week. It is our vision to transform the school Library Media Center so that it can expand its capacity to support cross-disciplinary, inquiry-based, project-based methods of learning which uses the resources of the library. We'd like to create an even more dynamic center of student learning where students are excited to come, and where they foster and develop their critical thinking, creativity, and collaboration.

PROJECT JUSTIFICATION

What need, problem, challenge, or opportunity will your project address, and how is it identified.

Prior to applying for the Accelerating Promising Practices for Small Libraries grant, the elementary school librarian carried out a survey from January 11 through January 18, 2019. Relevant stakeholders were contacted. They were the high school and middle school district librarians, about 30 elementary school teachers, 450 elementary students, and the elementary PTO (parent-teacher organization) were contacted to identify how to transform school library practice. Community input was direct from our users.

By far the largest survey respondents were the 450 elementary students whose opinions matter the most. Kindergarten through fifth grade students identified four major needs of the library, and the Library Media Specialist identified the fifth need.

- books
- (devices and digital tools)
- furniture
- projects
- more adult help

The greatest number of student responses was for more books, which cannot be funded through this grant. This desire especially warmed the heart of the Library Media Specialist. The children appreciate the printed materials that are at the heart of literacy in our library learning center. This grant can provide book displays that better showcase books purchased with school district funds, especially ones related to the desired Engineering is Elementary curriculum. The current linear shelving does not do justice to the collection and inhibits our very youngest library users from fully accessing the collection because they cannot read the book spines. Mobile book displays with acrylic book holders which hang off the slatwall panels will alleviate this problem. This will add additional book accessibility to students and have a effect of "merchandising" the books for greater appeal.

The second need students identified was for devices and digital tools with which to access existing library databases, electronic books, and kid-friendly websites. Existing library devices can be used to document this grant funded project, resulting in media creation and not just consumption. However, there are media release restrictions due to the age of our students. Furthermore, the Library Media Specialist wants to fully fund inquiry-based, project-based learning. Therefore, this grant will not be used to request digital devices nor to create digital projects with IMLS funding. Instead, tools already within the district can be used. Children can

continue to use the 15 existing desktop computers within the library, and the chromebooks within their classrooms.

Thirdly, students wanted child size furniture and comfortable seating to augment the hard plastic, adult sized furniture that is clumped together in the middle of the library. The existing space supports the use of the library as a multipurpose room but does not create a learner-centric environment. Better furniture and book displays can be the start of library zones that appeal to various age groups.

Their fourth major desire was for library projects. In the summer of 2018, a high level of student engagement was observed during the STEAM (science technology engineering art and math) Summer Learning Camp. The elementary school librarian wants to build on this existing momentum by purchasing several curriculum units of the Engineering is Elementary (EiE) curriculum provided by the Boston Museum of Science. The EiE curriculum units can form the basis for inquiry and project-based learning to develop 21st-century skills. Then existing library print, digital, and electronic resources can be used to extend this knowledge. This will transform our school library practice from a transactional-style approach of checking out books for personal reading into a dynamic center of self-directed, inquiry-based learning in collaboration with classroom teachers. Student personal reading needs can continue to be served under this model. A survey of classroom teachers and the district curriculum coordinator determined which EiE curriculum units to purchase. Furthermore, Kid Adventures, the elementary school's after school program, is seeking to purchase the Engineering Adventures curriculum, also from the Boston Museum of science. Use of the EiE curriculum in the library could align to this program creating a cross-disciplinary approach with the classrooms and after school program.

Currently the range of services provided by the elementary school library is limited by the size of the staff to one Library Media Specialist. A new Academic Support Specliast: Elementary STEAM Education member should be hired for the duration of this two-year project. The American Association of School Librarians (AASL) recommends "at least one full time technical assistant or clerk for each school librarian." (AASL position paper on Appropriate Staffing for School Libraries., www.ala.org/aasl/positionstatements). There are 30 classes per week scheduled into the library at the rate of around 90 students per day . If the elementary school library practice is to be transformed, this additional staffing is required to help students in inquiry-based, project-based learning, implement EIE curriculum units, and expand capacity.

The desired outcome is for the Hillsboro-During Elementary School Library to support a student love of personal reading and align with inquiry-based and project-based learning that occurs in the classroom, in the well attended afterschool program, and with district-sponsored summer school programs.

What best practices or prior IMLS funded work will form your approach?

The American Association of school libraries (AAS L) has published standards that inform this project. One standard is that "students inquire, think critically, and gain knowledge".   Another is that they "apply knowledge to new situations and create new knowledge". A third standard involves "sharing knowledge and participating at ethically and productively as members of a democratic society". And a final standard is that students "pursue personal and aesthetic growth:. (AASL Standards for the 21st Century Learner in Action). These important standards, as well as crosswalked Common Core State Standards, are met through this project.

How would you qualify your library as small and/or rural?

Our library is characterized as small because it serves a student body of approximately 450 elementary students. Currently there is only one licensed Library Media Specialist, and no other Academic Support Specliast: Elementary STEAM Education members are assigned to the library. Therefore, the librarian to student ratio is a whopping 1:450.

Students come from a small town of under 6,000 residents (2017 data). According to the US Department of Agriculture, definitions of rural vary. The Town of Hillsborough meets the definition because it

is largely surrounded by open space with a small population. A five minute drive by car from the school yields views of predominantly forest with some open countryside. The largest town in New Hampshire, Manchester, is located on the edge of Hillsborough County. Its presence skews Hillsborough County data and makes the Town of Hillsborough seem less rural than it actually is. However Manchester is almost 40 miles away, and the state capital, Concord, is 25 miles away. The Town of Hillsborough and district students it serves are well outside these defined urban areas.

Who will benefit from your project? How have you engage them in your planning?

The elementary students of Hillsboro-Deering Elementary School will benefit from this project. They've already been engaged in the planning through a survey. Furthermore their classroom teachers have been polled to determine what engineering curriculum units in the library will align with classroom units of study. From the beginning of the project, the elementary school librarian has made an effort to engage all project stakeholders so that actual, not imagined, needs of the school learning community are met.

How will your project address the goals of APP, your selected project category, and agency wide goal you selected on the IML as program information sheet?

Not only was students and classroom teachers benefit from this project, but it addresses goals of the IMLS to promote lifelong learning. Improved book displays will entice readers to explore overlooked sections of the library. Child-sized furniture will create kid-friendly zones for collaboration and personal reading. Project-based learning, such as the EIE curriculum, will lead to strong student engagement and foster valuable cognitive skills that students can take with them through life. An exciting aspect of this project is that it builds on summer STEAM Camp, and has cross-disciplinary aspects of classroom collaboration and could partner with our afterschool program.

PROJECT WORK PLAN

What specific activities will you carry out?

Specific activities carried out within the grant will be to implement the Engineering is Elementary Curriculum from the Boston Museum of Science, and to install better book displays and create zones of learning by adding child-sized connector benches to the library. This will be done with the assistance of a newly hired Academic Support Specliast: Elementary STEAM Education member for the two year duration of the grant.

Children in grades kindergarten through grade 5 visit the library once a week in a scheduled visit. During their library time, they will be able to get a book for personal reading. Then children in Grades 1 through Grades 5 will participate in an engineering design project based on Engineering is Elementary (EiE) curriculum purchased from the vendor, Boston Museum of Science. The Library Media Specialist has a Bachelor of Science Degree in Industrial Engineering Technology as well as 20 years of elementary teaching and library experience which make her expertly prepared to teach.

Kindergarten students are too young to access this curriculum, but they will make use of an already existing Makerspace cart for library activities that support their inquiry-based learning. Furthermore, they will be able to see the projects created by older students on display, thus sparking their interest in inquiry. The elementary library already has a collection of Makerspace books as resources for all students.

The student-stated need for more books is outside the scope of this grant. However the elementary school librarian notices that many areas of the library are underutilized due to the linear display of books on the current library shelves. She wants augment the current shelving with more learner-centric library book displays, where the current collection can be advantageously displayed. Rotating books through the displays will refresh

the look of the entire collection and create more outward facing titles. Students will more easily find books for personal reading as well as books related to the project.

Child-sized connector benches will create three areas where children can congregate and collaborate. The library already has some bean bag chairs which create a zone for Grade 5 "tween" students. Now younger students will have special areas too, which they will love.

Who will plan, implement, and manage your project? Will partners be engaged and, if so, for what purpose?

The elementary Library Media Specialist will plan, implement, and manage the project with the assistance of an Academic Support Specliast: Elementary STEAM Education member. Partnerships will be sought with classroom teachers, through keeping the Curriculum Coordinator apprised of the grant funded project, and in potential collaboration with the director of the afterschool program, Kid Adventures. The purpose of these partnerships is to create a cross-disciplinary, webbed school library program that supports and enhances the elementary learning community. The elementary school library is not meant to be a stand-alone program.

All identified school district level partners are licensed by the state of New Hampshire in their respective roles. The elementary school librarian has a Bachelor of Science degree in Industrial Engineering Technology which gives her the required skills and experience necessary to teach the Engineering is Elementary curriculum. She also has 20 years of certified classroom teaching and/ or licensed school librarian experience giving her the skills necessary to teach and manage the library program.

Through purchasing curriculum, a partnership will be formed with the Boston Museum of Science's Engineering is Elementary program. Telephone contact has already been made with a representative of the EiE program. Adopting an existing curriculum will eliminate the need for the elementary librarian to create a program from the ground up. This classroom tested, already fielded program is aligned to learning standards, which is a compelling reason to adopt it. The elementary librarian has also contacted a classroom teacher who has use the program for four years. This teacher reports that the program is adaptable to the library setting. She recommended purchasing two or three curriculum units per year. Using time estimates from EiE, a total of five curriculum units are requested over the two years of the grant. Two of the units will be taught concurrently.

What are the risks to the project and how you mitigate them?

There are risks to the project which can be mitigated through careful organization and planning. The librarian is already working at full capacity and devotes much after school and after contracted hours to the running of the library. This project needs the support of an Academic Support Specliast: Elementary STEAM Education member if the project is to have adequate manpower and staffing.

Students are scheduled into the library in 45 minute blocks once every 5 days. This is adequate time to do the EiE curriculum. Some library time will be devoted to getting a book for personal reading. Students already receive about 25 minutes of information literacy instruction in the library and have 20 minutes to check out a book. Tweaking their schedule and perhaps alternating checking out books for personal reading with EiE instruction on alternate weeks will ensure sufficient time to do both. Also the library is open before and after school and at student snack time.

Lack of involvement with classroom teachers could make this a meaningful program but dislocate it from the overall school learning community. It could become uncoordinated with the rest of the school curriculum. Ongoing e-mailed communication to classroom teachers and brief discussions with them as they drop off their classes to the library will create the necessary learning links from the library to the classroom. Weekly and/ or bi-weekly whole school staff meetings (depending on the existing teacher contract) will

enhance communication about the project. The librarian has also been invited to sit in with the Science Vertical Planning team.

Student learning will need to be differentiated. Most but not all, children learn through and are engaged by hands-on projects.   Some children only want to read, and the book displays and child friendly furniture where they can settle in will appeal to them. Whereas other children will want to create media, and still others will thrive with the project-based learning. The Library Media Specialist will need to differentiate instruction. She will need to know the learning styles of various members of the student body. It will be up to her, through observation and questioning students, to determine what point of entry will best involve them in the project. Creating collaborative student groups with skills which vary from student to student will create learning groups with diverse talents that support each other.

A great way to support the success of the project is through ongoing communication to and from all the stakeholders. Early and ongoing reflection and review will identify any problems, and the Library Media Specialist and associate can implement a solution. Tim Carrigan in a Senior Program Officer for the grant. He and other IMLS representatives will be a point of contact and resource as the grant is carried out.

How will you measure your progress and evaluate your project performance goals?

The IMLS has predetermined Performance Measurement Statements. Information gathering activities from pp. 31 of the Accelerating Promising Practices for Small Libraries : FY2019 Notice of Funding Opportunity will be used to survey participants. Students can be given a formative survey and a summative survey at beginning and the conclusion each EiE curriculum unit.

PROJECT OUTCOMES

What are the intended results and outputs of your project? How do they address the need articulated in your project justification?

This project is intended to make the elementary library a vibrant center of learning and to empower student learners. It is intended to seriously address the stated needs and desires of our learners for library projects as informed by the January 2019, survey.

As a result of the project, in Year 1, Grade 1 through Grade 5 students will create hands-on projects using material kits on the two topics of Wind and Weather, and Balance and Forces. In the first half of Year 2, Grade 1 through 5 students will participate in, create, and inquire through the Sounds Like Fun: Seeing Animal Sounds project. In the second half of Year 2, grade levels split into two projects. Grades 3, 4, and 5 will create an Electricity project while Grades 1 and 2 create an Insect and Plant project around hand pollinators. Story books will align each unit with the narrative of a child somewhere in the world, thus integrating the EiE curriculum with social studies and literacy.

The EiE Curriculum has a measurable impact. It is "*the result of research-based design principles and more than 3,000 hours of development, testing, and revision." (eie@mos.org)* EiE students better answer engineering and design questions, are diverse, and express an interest in engineering as a career. *(eie@mos.org)*

How do you define success for your project?
Success for this project is determined by:
- student engagement and interest
- completion of the EiE units and presentation of and display of the artifacts in the library
- increased circulation of under utilized library books

- increased use of library print, databases, eBooks, and kid-friendly websites in the pursuit of personal inquiry questions
- use and enjoyment of connector benches to create library zones of learning
- completion of IMLS Agency-Level Goal 1: Promote Lifelong Learning Performance Measure Statements

What is your plan for collecting and reporting data on your performance goals and outcomes?

Data will be collected through pre- and post surveys (Goal 1: Promote Lifelong Learning Performance Measurement Statements, p. 31 of the NOFO) as the EiE units begin and end. Also through student created artifacts, and teacher and librarian observations and anecdotes. Circulation statistics can be collected through the OPAC (Online Public Access Catalog) software already used in the library. Data on performance goals and outcomes will be stored in a binder kept at the Hillsboro-Deering Elementary School Library. It will be reported as required by the APP Grant.

Is the plan for collecting and reporting data on performance goals and outcomes well-designed and feasible?

Yes. It is typical for elementary schools to collect data through surveys, student created artifacts, anecdotes, and other means of assessment. We are quite versed in this.

Is there reasonable and practical planning for sustaining the benefits of the project beyond the funding?

This project is going to create a school culture of inquiry based learning by providing a strong scaffold around which it can form. The elementary librarian has already started an inquiry-based program in the library through books and a Makerspace cart, which is moving forward slowly. The addition of specific EiE STEM projects and an Academic Support Specliast: Elementary STEAM Education member is going to leap that program forward significantly, kind of like a NASA space program of the 1960's.

Once a child has learned to inquire, that skill cannot be taken away. Each child will have had two years of exposure and experience in inquiry learning, changing the individual, and the school climate and culture. When these skills have been learned, maintenance can be ongoing with less effort. The Library Media Specialist sees inquiry-based learning as integral to the library setting. So her personal values, as well the student's surveyed desires for project-based learning, support continuation of the project beyond the funding period.

CONCLUSION

Stakeholders in the Hillsboro-Deering School District have expressed their desires for a transformed school library. The result is this worthy, thoughtful request for funding. We respectfully request that you sponsor our project and appreciate the opportunity to bring our proposal to you.

HILLSBORO-DEERING SCHOOL DISTRICT
SCHEDULE OF COMPLETION
App Grant - Project Year 1 - 2019-2020 school year

Activity	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20
EiE Unit: Wind and Weather -- Catching the Wind : Designing Windmills (Grades 1-5)	███	███	███	███	███					
EiE Unit: Balance and Forces -- To Get to the Other Side: Designing Bridges (Grades 1-5)						███	███	███	███	███
Purchase and Install Grant-Funded Equipment: Book Displays; Slatwall End Panels, and Connector Benches	███	███	███	███	███	███	███	███	███	███

Activity	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21
EiE Unit: Sound -- Sounds Like Fun: Seeing Animal Sounds (Grades 1 - 5)	███	███	███	███	███					
EiE Unit: Electricity -- An Alarming Idea: Designing Alarm Circuits (Grades 3, 4, and 5)						███	███	███	███	███
EiE Unit: Insects and Plants -- The Best of Bugs: Designing Hand Pollinnators (Grades 1 and 2)						███	███	███	███	███