Pacific Library Partnership
Innovation and Technology Opportunity Grant Program

Due Friday, October 10, 2014

Please provide the following information in a Microsoft Word document. Please email the completed form to Wendy Cao at caow@plsinfo.org.

1. Title of Project Maker +: A Summer Maker Program

2. Library/Committee applying for funding Palo Alto City Library
   Name Monique le Conge Ziesenhenne
   Email Monique.Ziesenhenne@cityofpaloalto.org
   Mailing Address 270 Forest Avenue, Palo Alto, CA 94301

3. Amount of funding requested $15,000

PLP Innovation and Technology Opportunity Grant Program

1. One paragraph project summary.

Palo Alto City Library (the Library) hopes to introduce **Maker +: a Summer Maker Program** (the Program) that can support three major goals: enhance our STEAM program (Science, Technology, Engineering, Art and Math), support the 41 Developmental Assets, and foster an interdisciplinary exploration among sciences, art and social sciences. Relying on the 41 developmental assets as our guideline, the Program is designed to simultaneously rely on targets in STEAM to help students not only explore the field of technology but also learn psychosocial lessons. By participating in the Program, students will discover solutions for today's social issues through technology. In this way, the Library may be seen as a unique platform for inviting the public to wrestle with both social and scientific challenges. Ultimately, through the Program and our public space, physical and virtual, we will help all of our customers enjoy the experience of exploring a multitude of possibilities that could make our world better. This outcome serves many of the Developmental Assets by empowering students and connecting them to community, while encouraging them to learn more about science and social issues.

2. Explain how this project fits with the library's strategic directions.

The three goals are a demonstration of the core principles in Library's strategic direction. The Library works hard to support the 41 Developmental Assets and to provide multiple means for learning and fostering innovation and facilitating civic participation. The City of Palo Alto has also committed resources to build an eBranch that will serve as a platform for customers to discover, build and grow. Situated close to Stanford and the tech industry, the Library can offer its community and the world significant value by leveraging the unique partnerships and ideas through our beautiful public spaces and ebranch. By reaching the goals, the Program would take a big step towards advancing the Library's strategic direction.

3. A description of the proposed project including the population served and the demographics of that population.

There are two major components to the Program. The first includes opportunities for people of all ages to participate in structured programming. The second includes a contest to engage the Program's high-school-age participants in conversations around technology and the challenging social issue of inequality.

Structured programming will be offered to registered library users of all ages. Activities will be held in the Library's two newly built/renovated branches. Programming will include lessons on computer programming and robotics. Students and adults will be provided hardware to create mini robots. And they will also have the opportunity to create anything with the software knowledge that we are able to impart. The City's IT Director, Dr. Jonathan Reichental, will assist the Library in recruiting volunteers from the City's leading technology companies.

In addition to building partnerships with the world's leading tech companies, we will also seek to strengthen our relationship with the school district, the East Palo Alto Library (which is part of the San Mateo Library System), Space Cookies and other organizations that serve our diverse socioeconomic community.

Through a combination of paid instructors and volunteers, we hope to develop courses on programming and robotics that will not only bring fun and learning to participants in our community but also deliver these skills and knowledge from Palo Alto to everyone in the world through our eBranch.

The second component is a more comprehensive contest to engage a community conversation around technology and the challenging social issue of inequality. In this comprehensive contest, high school students will be challenged with the following prompt:

> Describe a problem that is related to severe income inequality and either propose or design a technology that could be useful in mitigating this problem. Are there any social or political factors that would prevent this technology from being properly implemented? Could public policy have a larger influence than your proposed technology? Why or why not? Or is new policy required to implement your technology?

Using a series of orientations and a training that employs IDEO design thinking methodology, students will work in teams to respond to this prompt through either the development of a new technology or a policy proposal. Students can take advantage of the free courses that we will be offering through the first component of the summer maker program in order to hone their programming skills. The final products from the contest will be on display in an exhibit at one of our new libraries and will be used to spark a conversation on the topic with the community and the world. The ebranch will also be the platform for exploring this topic beyond the summer.

The summer program will not end at the end of the summer, but it will continue to evolve online throughout the year.

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4. The goals and objectives of the project.

There are three major goals: enhance our STEAM program (Science, Technology, Engineering, Art and Math), support the 41 Developmental Assets, and lastly, foster an interdisciplinary exploration. Within these three goals, we also hope to:

- Build bridges with our neighbors by exciting curiosity, fostering empathy and sparking the imagination.
- Fill a gap in school curriculums by linking subjects – specifically, by connecting science to pressing social issues of our times.
- Allow students the opportunity to have fun with science and technology.
- Connect science and social issues to the Summer Reading Theme on Music.
- Foster a greater understanding in the community around significant social issues.
- Develop new ideas for technology to support readers and libraries.
- Provide high quality free courses on technology and an online forum for discussing technology and social issues.

5. The project timeline (activities).

January, 2015: Developing partnerships with additional funders, collaborators and volunteers
February: Staff readiness
March: Advertising the Program, soliciting participants and reviewing funding status
April – May: Communicating with participants
May: First orientation
June – August: The Program (pre and post evaluations)
July 25th: Opening of final exhibits

6. The evaluation of the project.

The program will be evaluated both qualitatively and quantitatively. Using pre/post surveys, the Library will learn: its impact on the knowledge of STEAM among Palo Alto and East Palo Alto's students, its effectiveness in supporting the 41 Developmental Assets. To use various metrics, including participant numbers, the Library will learn: its reach into the local community, including East Palo Alto, the popularity of the variety of programs, the Library's reach in fostering a wider conversation and a deeper understanding of inequality and the interest of the participants.

7. The project budget.

Funding Source	**Amount**	**Appropriation**
PLP	$15,000	Hardware and software for building and programming mini robots: $15,000
City of Palo Alto (including in-kind contribution)	$5,000	IDEO Design Thinking Training: 20 hours Promotional Materials: $2,000 Instructors: $1000

Community Donors (including in-kind contribution)	$30,000	Finch: $10,000 Vex IQ: $5,000 Lego WeDo: $2000 LittleBits: $3000 IPads for HopScotch: $5000 Instructors: 10 hours Local School Robotic Team: 20 hours