

Sherman Oaks Friends of the Library

Sherman Oaks Public Library

STEM Makerspace Cart Program Overview

Our vision is to spark a love for Science, Technology, Engineering, and Math (STEM) in Sherman Oaks students by providing free access to makerspaces. We hope to inspire students to engage in, seek out, and continue STEM learning.

Makerspaces come in all shapes and sizes, but they all serve as a gathering point for exploring and learning. A Makerspace Cart is a community destination where students – sometimes alongside staff, parents, and mentors – can create, problem solve, and develop skills, talents, thinking and mental rigor. They are most often equipped with raw building materials and components, and tools which fit the complexity of those materials.

The Sherman Oaks Friends of the Library (SOFOL), in partnership with the Sherman Oaks Martin Pollard Public Library (SOPL), is planning a pilot program at the SOPL that will offer a free and accessible beginner Makerspace Cart for the Sherman Oaks community. This idea was initiated by two local high school students, Jiyen Northan and Hayden Ranshaw. The Makerspace Cart will be a “mobile” cart that is equipped with tools and materials required to teach upper-elementary and middle school students and can be easily moved to different locations within the SOPL.

The Selected Makerspace Cart

The Makerspace Cart will be able to be rolled anywhere in the Branch where space is available to conduct a session. For the most part, sessions will be held in the Branch Community Room as it is the most space-appropriate room and is separate from the rest of the library, thus mitigating disturbances to other library patrons. And, weather permitting, this mobile cart gives added flexibility for classes to be conducted outside, if desired.

The Makerspace Cart will also be easy to secure. Its mobility allows for it to be secured in a room with no public access and then rolled out when needed for a session. It is also small enough that a locking cover can be used for times when the cart needs to be housed in a public access area.

The identified Makerspace Cart includes STEM tools, resources, materials, and lesson plans that can be used for a variety of STEM oriented activities that are appropriate for the elementary and middle school students. The cart itself is about four feet tall, four feet long and two feet wide. The cost of the proposed cart is \$1478.25 and with shipping and delivery will cost approximately \$1,600.00. We are also requesting an additional \$500.00 for the purchase of materials, supplies, and equipment that will be consumed during the lessons. The total requested grant is \$2,100.00.

The SOFOL will be funding the purchase of consumable materials once the pilot program is up and running.

High School Volunteers

While the materials and projects in the space cater to middle and elementary school students, Vulcan initiative emphasizes the need to actively engage high school students as volunteer teachers for the program's content and projects. It is our desire for this program to be a rewarding, practical, and constructive activity for which the high school students will volunteer. We hope this will result in a sustainable and lively program for years to come.

Our high school student volunteers will not only be improving and reinforcing their own STEM skills, but they will also develop teaching skills and be introduced to mentorship opportunities. These student volunteers will learn how to work with people with whom they have no prior relationship, demonstrating patience with those in need of guidance and support, and helping younger students figure out the best path forward, all the while clarifying and embedding those same STEM lessons within themselves. The experience learning these 'soft skills' will be an attractive way to acquire community service credit.

Library Staff

In addition to the high school volunteers discussed above, youth service librarians will be trained in teaching the program's content and how to guide the students through project completion. These youth services librarians will also be responsible for recruiting new teen volunteers as the need arises and for supervising and managing the young makers and the student volunteers.

Training of Teaching Staff

In the initial implementation of our program, Youth Services Librarians will be trained by the Sherman Oaks branch Young Adult Librarian and lead high school volunteers – currently Hayden Ranshaw and Jiyen Northan, local high school students, are working with SOPL to identify volunteers.

The high school volunteers will undergo approximately four hours of training over a two-week period. Their training will be provided by our trained Youth Services Librarians who will prepare them to manage Makerspace Cart procedures and student needs, and to keep time and measurement records. While recruiting more volunteers will give the program and individual volunteers flexibility, at first, volunteers will need to make a weekly commitment of two hours over two sessions.

Projects and Curriculum

The Makerspace Cart includes 29 projects for students ranging from fourth grade into High

School physics. The projects will be selected based on community interest or age turnout at the time of instruction. The program seeks to build upon the lessons to expose and educate the students to more and more advanced projects and make use of the High School project curriculum.

These fun yet instructive lesson plans help to bridge the theoretical with real life applications. Adding to that, the student volunteers and Youth Services librarians will help to cultivate an encouraging and accepting learning environment where students from all backgrounds can express their creativity and learn that failure through experimentation is okay, as it takes you one step closer to a solution.

While thinking through their designs, students hone their projects through multiple iterations until they have produced a viable solution to the challenge presented to them in the lesson plan. Throughout their problem-solving efforts, they are defining problems, empathizing with those facing or addressing those or similar issues and developing prototypes of possible solutions. Through the process of trying to make something, students see the value in their work and begin using their creative skills outside of the Makerspace to effect change in the real world.

Address any reply to:

P.O. Box 2350, Los Angeles, Calif. 90053

Department of the Treasury

LA-EO-76-424

District Director

Internal Revenue Service

Date:

MAR 23 1976

In reply refer to:

L-178, Code ~~431~~ EOG2:D:PS

Determination Section (213) 688-4553

▷ Sherman Oaks Friends of the Library
14245 Moorpark
Sherman Oaks, California 91423

Purpose: Charitable
Accounting Period Ending: April 30

Gentlemen:

Based on information supplied, and assuming your operations will be as stated in your application for recognition of exemption, we have determined you are exempt from Federal income tax under section 501(c)(3) of the Internal Revenue Code.

We have further determined you are not a private foundation within the meaning of section 509(a) of the Code, because you are an organization described in section 509(a)(2).

You are not liable for social security (FICA) taxes unless you file a waiver of exemption certificate as provided in the Federal Insurance Contributions Act. You are not liable for the taxes imposed under the Federal Unemployment Tax Act (FUTA).

Since you are not a private foundation, you are not subject to the excise taxes under Chapter 42 of the Code. However, you are not automatically exempt from other Federal excise taxes. If you have any questions about excise, employment, or other Federal taxes, please let us know.

Donors may deduct contributions to you as provided in section 170 of the Code. Bequests, legacies, devises, transfers, or gifts to you or for your use are deductible for Federal estate and gift tax purposes if they meet the applicable provisions of sections 2055, 2106, and 2522 of the Code.

If your purposes, character, or method of operation is changed, please let us know so we can consider the effect of the change on your exempt status. Also, you should inform us of all changes in your name or address.

(Over)

Form L-178 (Rev. 8-73)

If your gross receipts each year are normally more than \$5,000, you are required to file Form 990, Return of Organization Exempt From Income Tax, by the 15th day of the fifth month after the end of your annual accounting period. The law imposes a penalty of \$10 a day, up to a maximum of \$5,000, for failure to file a return on time.

You are not required to file Federal income tax returns unless you are subject to the tax on unrelated business income under section 511 of the Code. If you are subject to this tax, you must file an income tax return on Form 990-T. In this letter we are not determining whether any of your present or proposed activities are unrelated trade or business as defined in section 513 of the Code.

You need an employer identification number even if you have no employees. If an employer identification number was not entered on your application, a number will be assigned to you and you will be advised of it. Please use that number on all returns you file and in all correspondence with the Internal Revenue Service.

Please keep this determination letter in your permanent records.

Sincerely yours,

W. H. Connett

District Director