



Massachusetts Libraries

BOARD OF LIBRARY COMMISSIONERS

FACT SHEET

Science is Everywhere:

Supporting Science, Technology, Engineering, and Math (STEM) Programs in Libraries

PROGRAM DESCRIPTION

Public and school libraries may apply for grants of \$7,500 to plan and implement a project using the *Science Quest* manual or similar science curriculum developed through other library STEM projects. Grant funds may be used to support a limited number of staff hours as well as supporting selected hours for a science educator to work on the project.

Components of the project are that required:

- Agree to contract with a science educator who will work with the youth services librarian to offer a series of approximately eight hands-on science programs for 3-8th graders throughout the year.
- Demonstrate how the public or school library will work with its community counterpart on this project i.e. public with school library or school with public library. These libraries should also look for support from museums, local businesses, industry (if applicable), and other agencies to promote improved STEM learning.
- Agree to publicize the program using print, non-print and web resources.
- Design outcomes that determine the impact of the program to effect change on science literacy in the community.

ELIGIBILITY

Public and school libraries that meet standard eligibility requirements for Direct Grant programs are eligible to apply.

Libraries must have identified an interest in supporting educational goals for elementary and middle school children (Grades 3-8) in their long range plans.

INTERESTED?

Applicants must submit a Letter of Intent form with the "Science is Everywhere (STEM)" option checked off. If you need more information about this program, call Shelley Quezada at the MBLC 1 800-952-7403 ext. 235 or email shelley.quezada@state.ma.us.

BACKGROUND

An explosion of after-school programs that emphasize academic support services is taking place in settings such as Boys and Girls clubs, YMCA/YWCA sites as well as in public libraries. These programs have a positive impact on youth development by enabling students to be involved in project-based learning activities frequently missing from traditional school programs. Programs designed to meet our country's future needs must begin in communities where young children are introduced to a range of opportunities that promote the next generation of engineers and technologists. Early exposure to exciting career choices could also expand the number of women, minorities, and low-income students entering STEM professions. Library programs that support the importance of science and technology can help encourage an interest in these very important content areas.

Public or school librarians, working with a science educator as well as local business or industry, can offer programs and materials that stimulate creativity and promote innovation. Students can take an early look at "frontier occupations" such as alternative energy, green transportation, biotechnology, nanotechnology, robotics, or aquaculture. Library programs can offer materials that help improve non-fiction reading as well as providing a place to explore hands-on STEM activities outside the classroom in a setting that is both fun as well as informative.

Several years ago, the children's librarian at the Nevins Memorial Library in Methuen, MA developed a series of STEM topics for a target audience of 3rd to 8th graders. The training manual developed for this program may serve as a model for the libraries STEM programming efforts.

In addition to choosing from a series of programs presented with support from a locally selected Science Educator, the library may purchase and/or develop a selection of Kits on a range of topics including Legos or K'Nex models. Funds may be used to increase the collection of print and non-print materials that reflect STEM topics. The project may include one or more field trips to local museums, planetariums, or institutes such as the Christa McAullife Center in Framingham, the Discovery Center, or the Ecotarium. Family programs featuring speakers presenting on relevant STEM topics may also be offered to the wider community as part of this project.

2013-2017 MASSACHUSETTS LONG RANGE PLAN GOAL & OBJECTIVE

Goal 1: Support learners of all ages with their individual educational and learning goals.

Objective 2: MBLC supports literacy programs for all ages.