



FACT SHEET

Science is Everywhere:

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

PROGRAM DESCRIPTION

Public and school libraries will be selected to receive 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:

- Agreement 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.
- An agreement between the public library and local school or school and public library to work together on this project. These libraries should also look for support from museums, local businesses, industry (if applicable) and other agencies to promote improved STEM learning.
- Agreement to publicize the program using print, non-print and web resources.
- Agreement to participate in evaluation of the STEM initiative to determine the impact of the program.

ELIGIBILITY

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

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

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.

In 2009-2010, the MBLC funded a successful two- year grant project at the Nevins Memorial Library in Methuen, MA. The children's librarian developed a variety of programs on STEM topics that were presented to a target audience of 3rd to 8th graders. Subsequent modules have been added to reach children through middle school. Program participants may now use a training manual called *Science Quest* that will serve as a model for their 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, Discovery Center, or 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.