Established in 1989, Great Minds in STEM™ (GMiS) keeps America technologically strong through the delivery of national Science, Technology, Engineering, and Math (STEM) awareness programs for students, parents and teachers in underserved communities; providing opportunities for the academic and career development of underrepresented students and professionals in STEM; and honoring the excellent contributions of our nation’s Hispanic engineers and scientists. With a national presence through its education programs as well as its college and professional offerings, this stellar organization is working to ensure that the United States maintains its status as the world’s technology Leader.

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**Viva Technology™** is a national K-12 education program designed to engage students, teachers and parents with STEM challenges that stimulate interest in the application of technology and provide STEM-focused career pathways. The program creates awareness, supplies STEM resources and provides access to STEM career pathways.

### STUDENT DAY

During the Viva Technology™ Student Day, student participants school, will experience a full day of STEM project-based competitive and educational activities, and work in teams led by STEM college students, who serve as College Captain near peer mentors, and guide them through the challenges.

### PARENT ORIENTATION

The parent orientation, conducted in both English and Spanish, is a hour and a half orientation designed to provide information to parents on what their children will learn from being involved in the Viva Technology™ program; how encouraging interest in math and science will positively impact their child’s future; and what career opportunities lay ahead for their young STEM scholar. Conducted in English and Spanish.

### TEACHER ORIENTATION

The teacher component is an hour and a half orientation that familiarizes educators with the goals and mission of the program, and shares the current state of the U.S. technical workforce. Teachers receive materials and activities that can be replicated in the classroom, and are provided with a “Local Resource Guide,” which highlights various STEM-related programs and organizations in their community.

### STUDENT ASSEMBLY

In the spirit of Viva Technology™ Student Day, a 200-600 half-day student assembly is also available. This high energy educational event, is one of the largest student programs, and maintains a competitive one-of-a-kind STEM atmosphere. Accompanied with presentations delivered by multiple guest speakers from our partnering sponsor, it provides an ideal forum for students to speak with STEM role models.
The **STEM-Up™ Initiative** is a comprehensive community-based approach that provides a value chain of opportunities allowing participants to gain Awareness, Inspiration, Motivation, and Skills (AIMS), to pursue careers in STEM. This initiative currently in the Boyle Heights community of East Los Angeles is funded by the U.S. Department of Defense through a performance based contract and administered by the U.S. Army Corps of Engineers Los Angeles District.

Over the past 5 years, STEM-Up™ has increased demand for STEM awareness programming in the schools and local community. Through its various program elements, the initiative provides opportunities and access for STEM engagement through various touch points. Direct touch points include but are not limited to: In-class STEM challenge projects, parent and teacher workshops, Student Homework Agenda Planners, Viva Technology™ Programs, Science Fairs, school STEM activity event support, collaboration with community based organizations, and active participation in established community events.

**ELEMENTS OF OPPORTUNITY MAY INCLUDE:**

// **PARENT WORKSHOPS (ENGLISH & SPANISH)**

Parents/guardians are introduced to the college process through STEM College and Career Pathway Presentations. These bilingual workshops expose individuals to the plethora of higher education options, STEM degrees, and the process of college readiness.

// **IN-CLASS STEM CHALLENGE PROJECTS**

One of the opportunities offered through STEM-Up™ Initiative are the STEM challenge projects for students with partnering elementary schools. These in-class activities give students the ability to explore scientific concepts and processes, while receiving information regarding STEM related careers. The activities are in-line with the California State standards and are delivered during school hours to help supplement teacher lesson plans around STEM topics.

// **SCIENCE FAIR SUPPORT**

In an effort to broaden participation in science fairs and exhibitions, the STEM-Up™ Initiative provides “How To” support fully equipped with resources, medals, certificates, and access to college students and professional judges.
Showcasing pathways to STEM careers, Role Model of the Month publications are shared with community organizations, libraries as well as teachers, students, and parent centers. These bilingual publications feature STEM professionals from across the country and illustrate paths that students can undertake to achieve success in a STEM career.

The homework agenda planners are given to students in 4th through 12th grade to help them plan their academic year and inform them of STEM careers. Students are taught backward planning to schedule reminders and benchmarks of upcoming due dates. They are exposed to a variety of opportunities with information on colleges and universities, financial aid, college guide and educational tips.

STEM-Up™ Summer Sessions are a weeklong series that gives educators a wider perspective of STEM education. Resources at this workshop provide educators with current techniques and showcase to educators how to integrate and implement STEM in their classroom. Pedagogy, definition, curriculum development, alignment to the Next Generation of Science Standards, STEM careers, and STEM projects are covered during this week. There are also several technical tours and/or field trips to partner organization that occupy stem workforce.

STEM-Up™ Ambassadors are catalyst as they have the opportunity to work in collaboration with team members in delivering STEM awareness to classrooms and other school and community stakeholders. Ambassadors are a key partner for their school site and the STEM-Up™ Initiative as they promote and inspire students, to pursue college and a career pathway in STEM.

This initiative is currently specific to the Boyle Heights Community of East Los Angeles serving approximately:

<table>
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<th>Residents</th>
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<tbody>
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</tr>
<tr>
<td>3</td>
<td>Middle Schools</td>
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<td>3</td>
<td>K-8 Span School</td>
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WWW.STEMUP.ORG
WWW.GREATMINDSINSTEM.ORG

What will the future look like?
It’s up to you
It’s up to you
03. // NATIONAL STEM AWARENESS PROGRAM

The U.S. Army Corps of Engineers (USACE) developed a new contracting tool as a resource available to all federal agencies to promote STEM awareness by highlighting educational pathways and careers. USACE awarded this Blanket Purchase Agreement (BPA No: W91238-11-A-0002) to Great Minds in STEM.

PROGRAM COMPONENTS MAY INCLUDE:

// TWO-PART STEM AWARENESS PROGRAM FOR PARENTS & STUDENTS

This innovative program includes a bilingual (English & Spanish) Parent Orientation as well as a STEM Awareness Student Day that features team challenges; direct and intense interaction with college engineering and science students; and powerful, eye-opening conversations with STEM professionals. Available from 5th to 12th grade.

// STEM COMMUNITY EVENT SUPPORT

GMiS will support established events to promote STEM Career Awareness, as well as showcase organization and career opportunities within the sponsoring federal agency. Audiences may range from 5th to 12th grade and college students, to parents, teachers, community-based organizations and their members, as well as STEM corporate and government partners.

// SCIENCE FAIR SUPPORT

This program is available to schools that have participated in at least one STEM Awareness Program and are interested in, or are currently conducting a school science fair. GMiS will determine school requirements, secure judges, college student support and supplement the science fair with necessary materials to augment and enhance the event.

// STUDENT STEM IMPACT ANALYSIS

This service is available to federal agencies for schools that have hosted two consecutive STEM Awareness Programs. To achieve the most comprehensive analysis of STEM Impact on students, GMiS recommends the following three components as the Analysis approach: Education Awareness Program(s); School Environmental Scan; to Community Environmental Scan.
The **K-12 Educators Institute** was introduced at the HENAAC Conference. In 2010 this three-day Institute offers educators from across our nation an opportunity to gain resources, learn STEM-relevant teaching techniques, and participate in workshops. Educators are able to interact with STEM professionals and take part in various technical tours. The Institute features demonstrations and access to STEM challenge projects that reflect current STEM technologies.

### College & University Partners

Over 4,684 college students from colleges and universities have served as College Captains for the Great Minds in STEM™ Education Programs. The involvement of college captains from the areas where we conduct the education programs is an essential component of Great Minds in STEM™ K-12 educational outreach. The college students work as near-peer role models and provide support to the team in the entirety of the student programs.
Great Minds in STEM’s nationally recognized STEM Showdown™ brings together teams of pre-college and college students, who work in partnership through STEM-based competitions to gain STEM career awareness. Parents and teachers participate in simultaneous workshops held in collaboration with program sponsors and local university partners regarding college access, financial aid, and current issues pertaining to STEM education, innovation and classroom opportunities.

The unique aspect of the STEM Showdown™ is a contribution awarded to the championing partnership in order to develop/enhance a STEM club at the partnering high school. The objective of this award is to provide students access to STEM resources long after the event concludes. With a STEM Club established, local College Captains can continue to serve as ambassadors for their respective university, mentor aspiring STEM professionals, and encourage their high school partners to strongly consider their institution as a viable option for higher education.

// PACKAGES AVAILABLE:
STEM Showdown™ Premiere Package
STEM Showdown™ Standard Package
STEM Showdown™ Basic Package

// VIEW PDF PACKAGE DETAILS: