



## THE DIGITS PROJECT

DIGITS is a STEM (science, technology, engineering and math) education program that **pairs** STEM professionals - individuals who work in science and technology-based companies - **with sixth-grade classrooms throughout the state to increase students' interest in math and science subjects and careers.**

The name of the program – DIGITS – was selected because research indicates that math is the biggest barrier to STEM careers. By using a math term and making it engaging and kid friendly, the program is able to break through the math barrier and reminds students of the myriad ways in which they use numbers in their daily lives.

Volunteers come from companies in key STEM sectors, including computers, software, robotics, video games, telecommunications, wireless, Internet, biotech, medical device, pharmaceuticals, energy, and engineering.

## DIGITS IN THE CLASSROOM

### The DIGITS Project:

- **Brings STEM volunteers into the classroom to inspire students with their personal stories and their enthusiasm for their work,**
- **Provides materials to math and science teachers to enhance their understanding of STEM fields, and**
- **Utilizes interactive exercises that** help students understand the benefits of studying math and science,

**Each DIGITS classroom visit takes one period (approximately 45 minutes) and volunteers are asked to visit a minimum of two math/science classes in a school.** No work is required of teachers to prepare for the visit and there is no cost to the school to participate. **Class visits are scheduled at a mutually convenient time for both the teachers and the STEM volunteers.**

### STEM volunteers are:

- Currently engaged in a STEM job or career
- Typically 5-10 years out of college or graduate school
- Enthusiastic about their work
- Able to relate to children
- Representative of the workforce as a whole – including women and minorities

**Volunteers are trained ahead of time and provided with 'best practices' in presenting to sixth graders. The DIGITS Project provides all the materials for the classroom experience and volunteers bring them with them to the class visit.**

## The DIGITS PROJECT PROGRAM ELEMENTS

- **An award-winning logo and uniquely designed alphabet and set of numbers (0 – 9),** Each letter/number has a STEM icon embedded in it that represents products developed or tools used in STEM jobs. This alphabet helps to make the connections between STEM subjects and the work of STEM professionals.
- **Interactive exercises** help students understand the benefits of studying math and science and the wide range of job opportunities open to them if they do. These exercises utilize the letters and numbers of the DIGITS alphabet and enable students to envision themselves in a STEM career.
- **A colorful multicultural poster** pictures students engaged in STEM activities and lists the attributes and benefits available in STEM jobs and careers – all of which, research has shown, are desired by middle school students in a job/career.

- **An energetic, enthusiastic and upbeat music video and theme song**, recorded in several different musical genres speaks to students in their own ‘language.’ The lyrics reinforce the success that kids can achieve if they follow the DIGITS path and take math and science in middle school, high school and beyond and underscore the influential role of teachers and STEM Ambassadors in “inspiring kids to embrace the dreams within.”
- **The DIGITS website and blog** - [www.digits.us.com](http://www.digits.us.com) - is the portal to information about the program for teachers, Ambassadors, and corporate partners. Available through the website are links to the DIGITS classroom preview, music video, online program evaluation form that elicits teacher and volunteer feedback, and sign-up forms for schools and volunteers. Also accessible are key materials used in the classroom.

### **The DIGITS PROJECT GETS POSITIVE RESULTS**

All participating schools “opt in” to the program. 10,000+ sixth grade students in 118 schools in 79 cities and towns across the state were inspired to study math and science and motivated to consider STEM careers by the DIGITS Project in the 2009-2010 academic year, the first year of implementation.

An independent, third party evaluator reported that:

- Teachers gave our message, materials, and volunteers a high or very high rating,
- 97% of the teachers surveyed would recommend the DIGITS Project to others.
- Students showed a **statistically significant increase in their interest in math/science** as a result of the DIGITS presentation.

### **The DIGITS PROJECT SCHOOL VISITS 2010 – 2011**

The Project will be visiting schools by region. The schedule for 2010-2011 is:

**Fall: Central and Western Massachusetts**

**Winter: Northeastern and Greater Boston**

**Spring: Southeastern Massachusetts**

Schools will be contacted according to the schedule above. After volunteers have been trained and assigned to a classroom, the volunteer will then contact the teacher directly to set up a mutually convenient time to visit the school.

### **The DIGITS PROJECT SUPPORTING ORGANIZATIONS**

The DIGITS Project is a cross-sector STEM education initiative to increase student interest in math and science subjects and careers. The project partners STEM professionals, individuals who work in science and technology companies, with sixth-grade classrooms across the Commonwealth. It was created by six leading industry associations: The Engineering Center (host organization); Massachusetts Technology Leadership Council; Massachusetts Biotechnology Education Foundation, affiliated with the Massachusetts Biotechnology Council; the Massachusetts Network Communications Council (now a part of the Mass Tech Leadership Council); Massachusetts Medical Device Industry Council; and New England Clean Energy Council. The project is implemented in partnership with the Department of Elementary and Secondary Education, Massachusetts Association of School Superintendents, Massachusetts of Elementary School Principals Association, and the Massachusetts Secondary School Administrators’ Association. Originally funded by the Massachusetts Department of Higher Education’s STEM Pipeline Fund and the Mass Technology Leadership Council, the initiative is now underwritten by STEM companies including The MathWorks, Analog Devices, PTC, Cisco, and IBM.

#### **For more information about The DIGITS Project, contact:**

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