IBM AND STEM EDUCATION

Improving public schools around the world continues to be one of IBM's top social priorities. Through strategic initiatives, we're helping solve education's toughest problems with solutions that draw on advanced information technologies and the best minds IBM can apply. Because our efforts are focused on preparing the next generation of leaders and workers who will lead in the Innovation economy, a number of our projects focus on science, technology, engineering and math education.

Transition to Teaching

IBM's Transition to Teaching program is helping address the critical shortage of math and science teachers by leveraging the brains and backgrounds of some of its most experienced employees. Through Transition to Teaching, IBM is enabling its employees to become fully accredited teachers in their local communities when they choose to leave the company, providing tuition reimbursements up to $15,000, stipends during student teaching, and online mentoring and other support services in conjunction with colleges, universities and school districts. Transition to Teaching has 104 participants with 28 teachers at 24 sites.

Teachers TryScience (www.teacherstryscience.org)

Teachers TryScience, a collaboration between the New York Hall of Science, teachengineering.org, and IBM, is a site for teachers. Through Teachers TryScience, middle school teachers can improve their instruction of project-based learning, with a focus on engineering/design. Teachers are able to search for standards-based lessons that are linked to online professional development resources that will help them effectively implement lessons in the classroom. The site also provides social networking tools to enable educators to comment on and rate the lessons and professional development resources; submit their own teaching materials; and engage in focused discussions on relevant topics.

TryScience (www.tryscience.org)

TryScience, a collaboration of the New York Hall of Science, IBM, and the more than 600 member institutions of the Association of Science-Technology Centers, opens a world of science and discovery to students, who otherwise would have no access to the best museums around the globe. The site, which is available in nine languages, provides interactive exhibits, multimedia adventures, and live camera "field trips." TryScience also provides hands-on science projects that children, parents, and teachers can do at home or in school. A special view for teachers, compiled by the National Science Teachers Association Webwatchers' Team, correlates many of the TryScience experiments with National Science Education Standards and SciLinks codes.

MentorPlace (www.mentorplace.org)

Through MentorPlace, IBM employees around the world are providing students with online academic assistance and career counseling, while letting them know that adults do care about their issues and concerns. The program provides a meaningful and convenient way for IBM employees to volunteer their time and talents in schools. IBM works with teachers to determine what activities they would like their students to work on with their mentors. Activities cover all core academic areas, including science, engineering and math. Traditional mentoring

conversations also take place. More than 6,000 IBMers in more than 35 countries are currently participating in the program.

On Demand Community
On Demand Community is a first-of-its kind initiative to encourage and sustain corporate philanthropy through volunteerism by arming employees and retirees with a rich set of IBM technology tools targeted for schools and nonprofit organizations. It sets a new standard for corporate volunteerism by combining the strengths and skills of our people with the power of innovative technologies and solutions. Participating members are able to magnify the impact of their volunteerism through IBM Community Grants, a new global program that provides cash and equipment grant awards to the schools and not-for-profit organizations where they volunteer.

On Demand Community offers IBMers with volunteer solutions that enable them to share their enthusiasm for math and science with students and introduce them to the range of exciting, profitable careers in engineering and IT. Presentations include: Encourage math and science education; Preparing for an IT career, Game Tomorrow, and Lego Robotics.

IBM Technology Camps
IBM's Technology Camps around the world are designed to foster a new generation of scientists and engineers and encourage the thousands of young people who have participated in these programs to pursue careers in math, science and engineering. There number of jobs requiring math is exploding and is a tremendous opportunity for future careers. From video games and virtual worlds to electronic healthcare records and congestion traffic systems, math is making them go. From May – November, programs are held across the United States, Asia, Latin America, Europe and Africa for middle school age girls taking part in IBM's EX.I.T.E. (EXploring Interests in Technology and Engineering) Camps; boys and girls involved in the company's IGN.I.T.E. (IGNiting Interesting in Technology and Engineering) programs, and People with Disabilities participating in IBM's S.T.E.M. (Science, Technology, Engineering and Math) Entry Point workshops.

Under the Microscope
IBM has designed a dynamic social networking site for the Feminist Press called Under the Microscope (underthemicroscope.com) to encourage women and girls' interest in science, math and technology.   The site: collects stories and lessons from technical women, highlighting those experiences that were turning points for success and helpful advice for the difficult times; encourages teenagers to share their stories, concerns and ideas with their peers and mentors; enables technical women to network with one another; feature blogs from experts and successful career women on topics such as the environment, alternative fuel resources, nutrition/health, career development, events, medical discoveries; and publishes noteworthy and interesting news from around the world.

Computer Science Curriculum (www.ibm.com/university) and (csta.acm.org)
IBM and the Computer Science Teachers Association are providing free access to computer science resources for high school teachers. Resources include basic programming and web design principles that teachers can incorporate into computer science, math and science classes.

The resources also include a professional development module focused on project-based learning that is designed to help teachers improve their own instructional strategies.

TryEngineering (www.tryscience.org)
IBM is the technology partner of TryEngineering, a web site owned by IEEE. Designed to appeal to a wide range of audiences, TryEngineering.org, aims to inform teachers, school counselors, parents, and students about engineering and what engineers do through a web site that combines interactive activities with valuable information on careers in engineering.