

## **Impact on Education Supports Projects to Increase Student Learning in Science, Technology, Engineering and Math**

**By Amanda Cherry**

National statistics demonstrate that U.S. students are falling behind when it comes to their achievement in science, technology, engineering and math (STEM).

Through its Tech 21 program, Impact on Education is dedicated to improving student learning in these fields throughout the Boulder Valley School District (BVSD). The organization funded two multi-year, district-wide projects that aimed to improve student achievement in STEM fields last year. Having produced strong results during their first year of implementation, these projects will be funded again this coming school year for \$95,380. The projects are:

**Teach, Question & Involve**—Impact on Education committed to implement interactive learning clickers in every middle school math and science classroom in BVSD over four years. Handheld clickers allow student to answer teacher-directed questions anonymously, thus encouraging—in a sense requiring—class participation by all students. Using the technology, teachers are able to track the progress of all students and adjust their teaching as needed.

During the 2005-06 school year, Impact on Education implemented clickers at seven BVSD middle schools, impacting about 2,000 students. Next year, the organization will implement clickers at four new schools, while also increasing the number of clicker systems in use at the existing schools.

**Robotics Education**—This program sparks students' interest in science, technology, engineering and math by engaging them in the hands-on construction of robots. The program aims to increase student participation in robotics classes and clubs, particularly among girls and students of color.

Last year, the program fielded an all-female robotics summer workshop; fielded female-only robotics teams at two middle schools; grew after-school robotics clubs to include three additional schools—now nine schools currently offer after-school teams; and hosted a 17-team middle and elementary school robotics tournament.

This coming school year, the program aims to target schools with a large minority population and provide an appropriate support structure to allow them to offer a robotics program.

Impact on Education, with the help of donors such as Amgen, Ball Corporation, Chase, Inovonics, Qualcomm, Seagate, Sun Microsystems and Xcel Energy, has committed \$258,950 to these projects over four years if they meet their stated objectives. However, the organization needs community support to do so. To donate to Impact on Education's Tech 21 program, log on to [www.impactoneducation.org](http://www.impactoneducation.org), or send a check to Impact on Education, 75 Manhattan Drive, Suite 205, Boulder, 80303.