

**NDIA  
2013-2014 ACCEL GRANT  
SUMMARY OF PROJECT RESULTS**

**Angela Willis  
Milton High School**

This project involved participation by 146 Marine Science and Chemistry 1 students in grades 9-12. Each class collected water samples which were brought back to classroom for testing. Students used the digital probes to test the samples for pH and dissolved oxygen.

Students gained hand-on experience collecting field data, using digital probes and CBL software, and carrying out mathematical analysis. Students will continue to add on data and information each year.

Students reasoned that use of pesticides and fertilizers could add to the lower pH readings in the lake environment. Students discussed the possible causes of different oxygen levels between the small lake ecosystem and the river estuary ecosystem.

Our future plans include repeat testing in August and doing comparisons to determine if the measurements are consistent over time. Students also suggested collecting data from other streams and ponds in the area, as well as from rainwater samples.

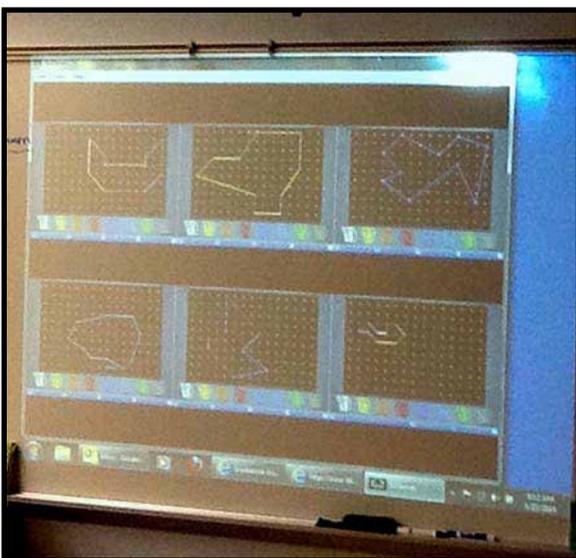
## Reaching and Teaching our Future through Technology

**Linda Crane**  
**Title I Math**  
**Shalimar Elementary**

What an amazing year! The grant from NDIA was such a tremendous asset to my Title I Math program for my students. Title I refers to the percentage of students living in poverty within the community. Our school has 64% of our students that fall within that category. I transferred schools this year and left the classroom for the first time. As I embarked on a new adventure, I was so blessed to be able to introduce our underprivileged students to a variety of interactive learning opportunities.

Their enthusiasm for mathematics was increased substantially through the use of the mini iPads afforded through your grant. Together, with Apple TV, we were able to display their work on an app, "Geoboard," in which they formed line segments and polygons through the use of virtual pegboards and rubber bands. They made discoveries about perimeter, area, angles, and congruence. It was such excitement for them to compare their results on the white board and opened their eyes to the possibilities.

Another program we used was one in which fractions actually made sense to the students; it was as though they came to life for them! I wish you could have seen the light bulbs going off in their heads! It was fantastic!



The groups of students I work with are those who struggle the most with mathematics and science. They typically score the lowest on standardized testing, and need help in all areas of mathematics. I was able to find a wonderful app, Splash Math, which practiced all aspects of the Common Core on each of the grade levels. The children were so excited to be able to practice their areas of need. The app actually kept track of their practice and emailed me each week! Technology, reaching and teaching our future!

I can't express the gratitude I feel for your generosity. I can tell you that we recently received the scores for the third grade group that I work with, and the students performed very well. They felt confident and ready for the task.

As the testing year came to a close, I was able to let them use some of the apps that I loved with my classroom. They used Coaster Physics and created their own roller coasters. We were able to incorporate math and science through our physics discussions! It was marvelous to be able to make the STEM connection with the children and see their excitement. I hope these children will see their potential and dream to be the future engineers I believe they can be! Thank you for helping me to reach and teach our future with the use of technology.