Honeywell

(by Kalie Grasso - July 30, 2008)

No vacation for three Teaneck teachers

Once teachers break for the summer, it is perceived that educators are excited to get a vacation from the classroom. For three Teaneck middle school teachers, however, the opposite holds true. They are three of the 40 Northern New Jersey middle school teachers who were selected to participate in the Honeywell Teachers for the 21st Century Summer Institute.

This Honeywell Teachers for the 21st Century Summer Institute was formed out of a partnership between Stevens Institute of Technology’s Center for Innovation in Engineering and Science Education (CIESE) and Honeywell Hometown Solutions. It hopes to address the decreasing interest and failing test scores in the field of science and mathematics within the United States. Beth McGrath, director of CIESE explains, "This program is addressing a critical national need – to create the science and technology workforce that will fuel our nation's economic growth."

Fran Guzy, Walter Hickey and Thomas Papaleo stepped back into a classroom during the past few weeks, but not as teachers – rather as students for a one-week session of hands-on learning at Stevens’ Campus in Jersey City. Guzy and Papaleo, both teachers at Thomas Jefferson Middle School, attended the July 7 - 11 session, and Hickey, who teaches at Benjamin Franklin Middle School, attended the July 14 – 18 session. Perhaps the most important part of this program is the refreshment it brought to these three teachers' lives, which will eventually translate into more enthusiastic teaching.

Although Guzy has been a Teaneck teacher for 22 years, she says that this program was a learning experience. "This curriculum was engaging and exciting," she says. "I love to learn. That’s why I love to teach, and teaching is a constant learning experience. This will enrich my student's learning experience by infusing Web sites into our investigation of science... which allows us to collaborate and pool information together that would be impossible without technology." The results from the hands-on activities were then researched on the Internet to compare to others’ results worldwide, offering a global community.

Papaleo, a sixth grade Teaneck teacher for eight years, agrees with Guzy. "I did not think of Internet collaborative projects, and the use of the Web for data collection and analysis was something new I learned. I am looking forward to using the boiling point and genetics projects in my classroom," he says. "The more ideas I have as a teacher and the more resources I can draw on for instruction, then the more exciting and enjoyable learning becomes for my students."

Already an innovator in technology, Stevens Institute has led the way for incorporating technology into learning. Since 1988, Stevens’ CIESE has been improving K-12 science and mathematics education with grants and contracts totaling over $22 million. Its programs and activities have reached more than 20,000 educators worldwide.

Hickey, a Teaneck teacher for seven years, had actually done several projects with Stevens Institute in the past, and periodically checked their Web site for new projects. He was excited to learn that two other Teaneck teachers would partake in this program with him. He is also looking forward to taking back the knowledge attained to his
classroom, Hickey comments, "I am reinvigorated. Learning new teaching techniques keeps you from being bored or stale... The students will now have new, engaging projects – with ongoing support."

McGrath notes, "We met Tom Buckmaster (President) and Victoria Streitfeld from the Honeywell Hometown Solutions early in 2007 through a mutual business partner. Honeywell Hometown Solutions conducts strategic programming in pre-college science and mathematics... and our Center has been working for over 20 years on programs to motivate and sustain student interest and achievement in science, technology, engineering, and mathematics. The synergy of a partnership became immediately apparent."

According the McGrath, there was actually a waiting list for this year's program and they hope to continue and expand it. Applications were received in the beginning of the year and participants were selected based upon their passion for teaching science and their expectation to follow through with activities learned in the class. There is no fee for these teachers to attend the Honeywell Teachers for the 21st Century Summer Institute.

"Honeywell provides the financial backing for the entire program, from the costs of Stevens' instructors to the $750 stipend for participating teachers, to the equipment they will receive, to the funding for the Student Innovation Day that will follow in the spring," said McGrath. These teachers also have the option to apply for three graduate credits for successful completion of the program and assignments.

This partnership was first put into action in July of 2007 with a pilot program and since it was successful, it doubled in size for this week-long July 2008 summer program. Although two separate sessions were offered, they were both identical in curriculum, offering new approaches to science, technology and math that will help engage and encourage interest from their middle school students. Among the hands-on activities included are creating devices to measure water's boiling point, building a basic thermometer, barometer, wind vane and anemometer, and engineering an earthquake-resistant structure – all while using the Internet and technology to review and compare the results with worldwide audiences.

Hickey attributes his professional growth to Teaneck itself, saying, "I could not participate in a program like this without the support of my principal and fellow teachers. We are constantly pushed to engage our students to promote learning. Taking part in programs that demonstrate the best practices and engage all learners is a constant theme in our District. Teaneck is supportive in giving us professional development time to attend courses like those provided at Stevens."

For more information or to view the curriculum for the Honeywell Teachers for the 21st Century Summer Institute, please visit www.ciese.org/honeywell.