

West Islip Research Program

The goal of the West Islip Research Program is to foster an appreciation and real understanding of the scientific method. Our students become young researchers, who learn to question, to design their own experiments, to analyze data and to interpret their observations.

Over the last eight years, our students have experienced numerous successes, conducting their research and growing as scientists. We have had three *Intel International Science and Engineering Fair* Finalists, one *Siemens Westinghouse* semi-finalist, two *Intel Science Talent Search* Semifinalists, six *New York State Science and Engineering Fair* Finalists, seven *Long Island Science and Engineering Fair* Finalists, seven *New York State Science Congress* finalists, and three *Long Island Junior Science and Humanities* Semifinalists.

During the 2007-2008 school year, two of our students were selected among the top eight individual science projects from Suffolk County at the 2008 *Long Island Science Congress*. They moved on to compete at the *New York State Science Congress*. One student was a finalist at the *New York State Science Congress*.

More recently, two of our research students participated in the *Long Island Science and Engineering Fair*, which is the regional *Intel* fair, held on February 10, 2009. We are pleased to announce that one of the two students was selected as a finalist. This student will present at the *Long Island Junior Science and Humanities Symposium*, to be held at SUNY Stony Brook on March 14, 2009, and will compete in the second round of the *Long Island Science and Engineering Fair*, which may qualify him/her for a chance to compete in the *Intel International Science and Engineering Fair*.

We are extremely proud of all that West Islip students have accomplished. We certainly congratulate the outstanding work and accomplishments of students in other districts throughout Long Island. The award-winning *finalist* projects, which we encounter at these competitions, are a result of work, which is done at research institutions, generally over the course of the summer, in conjunction with research mentors at these institutions. We continue, as we always have, to encourage our students to pursue these types of research opportunities.

The science research teachers at West Islip High School work with our students to provide them with a truly enriching learning experience. A 'research club' provides grade 8 students with opportunities to become acquainted with research techniques and to apply the scientific method. Our High School program offerings include: 1) an introductory course in for 9th grade students, in which students are introduced to the scientific method and laboratory techniques, 2) a biotechnology research class, in which students acquire specific laboratory skills, extracting, digesting and amplifying segments of DNA for analysis, as well as conducting a research project in this field, and 3) advanced research, in which students apply research methodology in the natural and social sciences by using on-line databases and bibliographic search techniques,

consulting professionals in the field of study, developing hypotheses and conducting an original experiment, which tests their hypotheses. Students present their findings at the West Islip Science Research Symposium, which is held in May at West Islip High School. Selected projects are presented, throughout the year, at the local, regional and/or national competitions. Those students, who meet enhanced criteria, are offered college credits through the University High School Program at SUNY at Albany.

We are very proud of the hard work and dedication of our students in their Research classes. We also take pride in knowing that we have outstanding teachers, who are dedicated to providing their students with truly enriching learning experiences. The successes of our students in the research classes truly reflect the successes of all who participate in the education of these students: their parents, who foster a love of learning and a strong work ethic in their children, their teachers, who dedicate themselves to seeing their students succeed, the *Partners Advancing West Islip Students (PAWS)* education foundation for funding supplies and materials, which have greatly enhanced 'biotechnology' education in our research classes, and the West Islip community and Board of Education for supporting our educational programs. We look forward to continued opportunities for our students and to their continued successes in science research.