

TEACHERS PRESENT CONTEST OPPORTUNITIES IN SCIENCE AND HUMANITIES

by Wei Lam

Being a student at Stuy is about much more than sitting in classrooms. At the January PA meeting, several teachers shared some of the opportunities available at the school and beyond.

MS. LINDA WEISSMAN – Social Studies Department

The social sciences encompass human behavior, social and community relationships, psychology, sociology, anthropology, linguistics, and more. Stuyvesant supports social research with a one-year 10-tech Social Science Research class that meets one period a day during the junior year spring term and senior year fall term. Students have a variety of opportunities for competition ranging from the Intel Science Talent Search to the NYC Science and Engineering Fair (NYCSEF), the Quality of Life Competition, and the Kenneth E. Behring National History Day Contest. School-based support is provided by Ms. Weissman and the librarian. This class is enriched by extraordinary mentors who bring a real world perspective to the work. In this class, students are guided to refine their areas of interest, develop topics for independent research, and are then matched with appropriate mentors. Mentors include professionals from NYU, Lehman and Marymount Manhattan College, as well as Stuyvesant alumni from various fields of study. The math department supports these students with an optional one semester statistics class. To maximize the experience, students must be ready for independent research because hands-on support by teachers is limited. Ms. Weissman offered a few examples of topics submitted for competition this year: a meta-analysis of the obesity epidemic, Tetris as an indicator for math ability, Facebook's effects on the Circadian Rhythm, and violent crime rates in high touch versus low touch countries. The wide-ranging nature of social science makes it very welcoming for Stuy's most curious students.

MS. MEGAN BRESLIN – English Department

Most literary opportunities are in publications or contests. Ms. Breslin presented two key creative writing contests that Stuy students have participated in; the Scholastics Art and Writing Awards and the Random House Creative Writing Competition for NYC public high school seniors, also called the Bertelsmann Foundation's World of Expression Scholarship Program. In addition to prize money, contests allow students to build a portfolio of written work. Stuy also offers opportunities to be published within the school community so creative writers can flourish. *Caliper* - one of the oldest high school publications in the nation - and the monthly open mic are two examples. Writing on the Wall posts student work on their Web site. One worthy piece is posted on Stuy's walls each month. The creative writing class allows developing writers to work on creative nonfiction and poetry. Parents should check the English Department's Web site to learn about these and other opportunities.

DR. JONATHAN GASTEL – Research Coordinator

Dr. Gastel stressed the importance of being able to research. The most critical factor of success is independence. In the "road to excellence," teachers nurture students' development by first defining the criteria for success. They reward success with grades or by helping students to get awards. Awards are important because they are a motivation for and allow for national indexing of student achievements. In one type of competition, students can write about their science ideas:

- The Dupont Challenge Science Essay Competition is a science essay contest. High school students in any grade are eligible.
- ExploraVision allows students (K-12) to work in small teams on a vision for an invention. Many Stuy tenth graders participate.
- Specialized contests include the March of Dimes essay contest for ninth and tenth graders writing about birth defects.
- The National Peace Essay Contest sponsored by the U.S. Institute of Peace gives a \$10,000 prize for the top essay on peace.

Another type of science competition is research-based:

- Siemens Competition in Math, Science & Technology (formerly Westinghouse) comes with a cash prize and national recognition.

- The Intel International Science and Engineering Fair (ISEF) provides a forum for students to verbally showcase their research.
- The Google Science Fair groups student presentations by age. Young scientists can begin in ninth grade for this international competition, which includes a scholarship.
- Specialized opportunities include the international Stockholm Junior Water Prize for projects on water and the environment.

These competitions are intensive. Students at Stuy work on one project and submit the same paper for all the competitions, building on their project's content from one paper to the next. Some projects culminate in the Intel Science Talent Search during senior year.

Some competitions focus on environmental issues:

- The Siemens We Can Change the World Challenge is a team competition.
- The Canon Environthon is North America's largest high school science competition.
- The Lexus Eco Challenge (formerly Lexus Environmental Challenge) is a national competition for \$500,000 in scholarships.
- The American Museum of Natural History Young Naturalist Award is for middle and high school inquiry-based researchers.

Contests that challenge students' skills in specific areas of science include the national Science Olympiad; International Olympiads in physics, chemistry, biology, and mathematics, for high school seniors from around the world; the Physics Balsa Bridge Building Contest for budding engineers; the national PhysicsBowl; and the National Ocean Sciences Bowl.

Students should speak with their math and science teachers if they are interested in the research classes or these awards and competitions.

MR. ROBERT WELDON – World Languages Department

Mr. Weldon spoke from personal experience about how learning a second language enhances learning in general and opens doors to new cultures, opportunities, and perspectives. The key to mastering a second language is to look for opportunities to speak that language. New York City offers so many chances to hear and speak another language; we only have to walk out our front doors. Mr. Weldon urged students to speak to faculty members in the world languages department to learn about national and local contests, to connect to different programs that enhance their language learning, and to find out about study abroad programs. Studying abroad gives students a chance to experiment with global living. He mentioned a program called Amigos de las Americas, which integrates community service with travel to thousands of communities in Latin America for high school and college students.

The World Languages Department's list of opportunities is an excellent place to learn about these programs, many of which are nonprofit operated. Some programs are expensive and some offer scholarships. He encouraged students to fundraise to attend the programs they are most interested in. Each program is listed with a faculty advisor name; students should contact those teachers about their interests. On a final note, Spanish is the only language offered at Stuy that extends beyond the AP class. If your children are looking for foreign language learning beyond the school, consider the College Now Program.

While the four presentations were different in their scope and content, their messages were the same. Learning goes beyond the classroom, and Stuy students are not constrained by the opportunities inside the school's walls. They do, however, need to do their homework to find out about the programs. Students should start with the departmental Web sites, and reach out to the appropriate faculty advisors to begin the learning process.