

## **NORTH BAY CHAPTER PEO**

### **STUDENT OUTREACH PROGRAMS**

The North Bay Chapter of the Professional Engineers Ontario has been involved for a number of years in providing programs for students to help develop their aptitude and have fun while developing their math and science skills. We need the assistance and cooperation of the entire community to make these programs successful. With your help we can increase student participation and maximize the benefits of these programs for the students in North Bay and the surrounding communities.

Attached is an outline of our student outreach programs. Most of our programs are designed to coordinate with the Province's core curriculum requirements for students in Ontario. The North Bay Chapter PEO also supports the Canada First Robotics team and Ontario Mining Week events.



# SCIENCE FAIR



## ***Why do Science Fair?***

### **Discover Something**

Not only will you learn something from doing a project, it's actually a lot of fun and you'll even learn from other peoples projects. Real research is done for science fairs, sometimes resulting in important inventions and discoveries. Even if your project isn't earth shattering, you'll almost certainly learn something you didn't know before you started.

### **Developing Skills**

Participating in the science fair may enhance your skills in several areas such as science, math, health and communication. In addition, you may improve other skills such as technology skills with computers and cameras, public speaking, and gain technological/environmental awareness.

When you're working on a science fair project, it's easy to get help, plus no one expects perfection. The benefits of the project go way beyond learning science. You'll become more confident, more mature, more disciplined, and more skilled.

### **Cash & Prizes**

The science fair project you do for your science class may get you an 'A', but if you can take that project to a higher level, success could be measured in terms of a cash prize, recognition, scholarship, educational opportunities, and offers of employment. Even if you don't win, the experience is nice to put on your college application!

The Science Fair has proven to be an excellent opportunity for students to pursue their interest in science and mathematics. Our representatives at the Canada Wide Science Fair have further enhanced their interest and have received both national and international recognition for their achievement.

For more information on this event, please see the website at [www.nbrsf.com](http://www.nbrsf.com), or contact the Chair of the organizing committee Mike Pearsall at (705) 497-8489.





# NEAR NORTH STUDENT ROBOTICS



We are the Near North Student Robotics Initiative, a student team representing the Near North District School Board. Our mission is not only to build a robot, but also to promote science and technology. We compete through FIRST (For Inspiration and Recognition of Science and Technology) in the spirit of FIRST, we are a multidisciplinary team and strive to shine a positive light on engineering and all learning. We encourage students to join in real life leadership, science, business and technology challenges. Our team is not confined to one classroom, nor one school and not even one city; we draw our strengths from the entire Near North area.

The FIRST program is a life-changing, career-molding experience—and a lot of fun. In 2010 the competition launch alone has reached approximately 45,000 students and over 1,800 teams in 57 locations worldwide. FIRST teams come from Canada, Brazil, Mexico, the Netherlands, Israel, Great Britain, and every American state. The competitions are high-tech spectator sporting events, the result of lots of focused brainstorming, real-world teamwork, dedicated mentoring, project timelines, and deadlines.

FIRST designs accessible, innovative programs to build self-confidence, knowledge and life skills while motivating young people to pursue opportunities in science, technology and engineering. FIRST inspires in young people, their schools and communities an appreciation of science and technology, and how mastering these can enrich the lives of all. (FIRST 2004)

For more information on this event please contact the Chair of the organizing committee Gerry St. Denis at [StDenisG@pginw.com](mailto:StDenisG@pginw.com).



*Tam insulsum est  
ut fortasse expediat!*



*Its so crazy that it  
just might work!*



## MATHLETICS



Teams of students representing their schools compete in a mathematics competition. Students on each team answer 10 mathematics questions within a preset time limit. One point is awarded for each correct answer each student on the team submits. The answers must not only be numerically correct but must be submitted with the proper units. The team with the highest aggregate score is the winner.

Teams compete in categories based on their grade. These categories are grades 9-10 and 11-12. If enough interest exists, a third competition for grades 5-6 is added.

The event is usually held in the spring during the month of May. For additional information, contact Wilson Muir at [wmuir@knightpiesold.com](mailto:wmuir@knightpiesold.com) or Luc Roberge at [lroberge3@cogeco.ca](mailto:lroberge3@cogeco.ca).

# ENGINEERING STUDENT NIGHT

This evening is designed to provide graduating high school students, thinking about a career in engineering, the opportunity to gain some insight into the engineering profession. Students are introduced to the engineering profession by providing them an opportunity to speak to engineers over dinner. The engineering interests of the student are matched with the corresponding practicing discipline of the engineer hosting the student, who generally picks up the student and brings them to the event.

The evening begins with local engineers and students informally sharing their thoughts and interest over refreshments. This is followed by dinner and several presentations by local engineering professionals about their engineering careers and experiences. We generally plan to have two recent engineering graduates provide a short presentation on their experiences in university and the working world, as well as a keynote speaker to provide the students with an insight into the benefits of pursuing engineering as a professional career.

After the presentations, an open discussion follows where students are encouraged to ask questions they may have about engineering as a profession. The cost of the evening is covered by the engineers in attendance and the local Chapter of the Professional Engineers of Ontario (PEO).

Previous year's events have received excellent reviews from all participating high school students and teachers, as well as the sponsoring Engineers from our chapter. The outstanding success of this event year after year has been a direct result of the excellent participation by the engineers in our chapter, who have willingly given of their time to host or sponsor a student for the evening.

The Engineering Student Night is generally held at the Davedi Club on the third Tuesday in November. For more information, contact Luigi Alvisi at [Luigi.Alvisi@opg.com](mailto:Luigi.Alvisi@opg.com).



# BRIDGE BUILDING CONTEST

Students compete according to their group, which is divided into grades 4 to 12. Students construct a bridge from six, one meter long pieces of balsa wood. The bridge designs are judged on the basis of craftsmanship, conformity to guidelines, and engineering content. A commentary is provided by local Professional Engineers. The bridges are then tested to destruction to determine the load carrying ability of the structure in relation to its weight.

Kits include the materials and design criteria and are made available to schools that indicate their interest. For further information, contact John Simmonds by email at [jsimmonds\\_14@sympatico.ca](mailto:jsimmonds_14@sympatico.ca) or Luc Roberge at [lroberge3@cogeco.ca](mailto:lroberge3@cogeco.ca).



Pride!

Create!

Pride!  
Create!

Fun!  
Team Work!

