



## Turning Middle School students on to Careers in Science and Engineering

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For immediate release

(Abbotsford, BC--)

While it would seem like a university level subject, the study of robotics now reaches the middle school level. A class of grade 7 students from W.A. Fraser Middle School in Abbotsford are the first to take part in a pilot program offered by Yale Secondary Robotics teacher Dereck Dirom. The grade 7 students will be attending Yale Secondary for approximately 6 hours this semester, to discover the world of robotics. While working in engineering teams of three, students are given a hands-on opportunity to design, build, and program a basic robot so that it will interact with its environment. Each team is given the opportunity to learn the basics of building and programming a robot using the highly acclaimed LEGO Mindstorms NXT platform.

According to District Career Programs Principal, Patti Tebbutt, "Robotics Programs are an excellent opportunity for students to apply STEM (science, technology, engineering and math) concepts. STEM graduates on average enjoy better employment prospects and significantly higher starting salaries than graduates in non-STEM fields."

Teacher Dirom acknowledges the generous contributions received from the Mitchell Odyssey Foundation and BCIT's School of Energy, noting without their support, the Robotics program in Abbotsford couldn't continue. Through the Natural Sciences and Engineering Research Council of Canada (NSERC)'s PromoScience Program, the Government of Canada will provide \$2.9 million to 58 organizations promoting science and engineering to young Canadian, including universities, non-governmental organizations, museums, and science centres.

### **Building the Next Generation's Engineers?**

Meanwhile, students at Abbotsford Middle School are also exploring future careers in STEM related fields. The school has recently started a Science, Technology, Trades, Engineering, and Math ('STTEM') program for students. Under the tutelage of Technology teacher Mike Howe, students study applied science concepts and rotate through 10 STEM related areas, such as: Robotics, Flight Simulation, CNC Machining, Architectural Drafting (CAD), Bridge Building, Gravity, Alternative Energy, Graphic Design, Animation, and Rocket Science.

All students can be successful in this program as the curriculum/instruction is differentiated to meet the needs of the individual learner. According to District Principal Tebbutt, "STEM learning is fun and engages learners because it is project-based. Students are expected to work cooperatively with others and learn to work together in teams - a very important skill needed in the work world." Grade 8 students spend their Exploration Course time focusing on one STTEM area, culminating in a final project that they present to their peers as well as other program partners. In addition, the School District's Career Program department is working with local business and post secondary partners to further student awareness in regards to future STEM career possibilities.

FOR PHOTOS/VIDEOS:

Here are links to Flickr and YouTube channels set up for the GearBots program. (All students have photo releases.)

<http://www.youtube.com/user/ddirom#p/u>

<http://www.flickr.com/photos/59926592@N03/sets/72157627977172324/>

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