Dereck Dirom
Yale Secondary School, Abbotsford, BC – SD#34 Abbotsford
Mitchell Odyssey Foundation Recipient – Year 3
GearBots Robotics Engineering Program
(w) gearbots.org

In 2008 Yale Secondary School received a Mitchell Odyssey Foundation grant. As a result of the funding, a number of opportunities were created to introduce students in SD#34 to the world of robotics engineering.

A robotics engineering course is now an affordable, fun, highly engaging platform that reinforces core skills contained within our standard curriculum. While robotics integrates core science, technology, engineering and math skills (STEM), it also reinforces key employability skills such as the importance of effective teamwork, project management, problem solving, and decision making skills needed for successful life long learning in the 21st century.

At Yale Secondary School, our robotics engineering program is designed to teach students how to engineer complex autonomous mechanical devices, while simultaneously learning how to program a robotic device to complete a number of tasks and challenges. In addition, students are introduced to the engineering process and learn how innovative and creative thinking are critical concepts needed to solve problems in the world of work. Students work collaboratively in engineering teams to solve tasks and challenges as well as compete against other teams in class / group competitions which helps them keep motivated and focused.

The advantages of our program are an increase in students' engagement, academic motivation, career exploration opportunities, and their attitudes towards the core subjects like math, science by the students who have taken our robotics courses. This is no surprise to educators because there have been many studies that have shown the more engaged a student is towards a subject, the better academic results he or she will earn.

It is a fact that our students today are immersed in technology. Therefore, it only stands to reason that as educators, we need to find effective ways to integrate technology into our curriculum to enhance learning and to better promote the core skills required for the an employee in the 21st century. Words like innovation and imagination are offered up as key skills needed to address the issues and opportunities of tomorrow. At Yale Secondary School, we have developed such a program geared to help our youth better meet the needs, skills and demands of the 21st century.