



SOUTHBOROUGH EDUCATION FOUNDATION GRANTS 2015-2016

Stimulating Mathematical Learning

Paul P. Calnan and Caroline Flynn, **Algonquin Regional High School - \$625.76**

An iPad Air 2 will be purchased for use in a co-taught Integrated Math II/Integrated Math II CP/sophomores, Algebra II/juniors and Algebra I/freshman classes. This iPad Air 2 will facilitate different learning styles in the classroom. It will allow the teacher freedom of movement to write on the board from anywhere in the classroom and enable lesson plans from the board to be stored and printed out for student class notes. The iPad would also allow for the sharing of student work with the teacher. The use of the iPad will stimulate visual learning and mathematical verbal learning skills for all academic levels of students.

Cafeteria Space Mural

Michelle Sheppard, **Algonquin Regional High School - \$2093.77**

Students in the Algonquin National Art Honor Society Chapter will work with a professional mural artist to brainstorm, plan and paint a large-scale mural that reflects the identity, diversity and accomplishments of Algonquin students. This collaborative mural created in a prominent area of the school, such as the cafeteria, would portray the diverse talents, passions, interests and backgrounds of the student body while also providing aesthetic improvement to the school and visual pleasure for the students.

Vernier Melt Station for Chemical Identification

Catherine Burchat, **Algonquin Regional High School - \$1931.48**

A Vernier Melt Station will be purchased for use in several Algonquin chemistry courses including: first year Chemistry, Organic Chemistry, and AP Chemistry. Chemical compound identification and purity can be determined by accurately measuring melting points. This can be done for compounds with melting points below 100°C using a water-based system, but in order to determine melting points higher than 100°C, special equipment is required. The Vernier Melt Station can determine melting points up to 260°C. Students at all levels of the chemistry curriculum will learn by experience that physical properties, such as melting point, can identify compounds and indicate the level of purity of that substance.

Enhanced Circuit Labs for Physics

Nathan Largesse and Kevin Hausman, **Algonquin Regional High School - \$1378.00**

The Algonquin Physics department was awarded a class set of breadboards and multi-meters that will be used to increase the depth of students' learning about circuit structure and relationships. This experience with breadboards and multi-meters will provide all students with much needed technical and logical hands-on experience and better prepare those students who go on to study AP Physics, Physics at the college level, or any engineering field which almost always incorporates a basic level of electrical engineering lab experience.

Learn to Code

Audrey Alenson, **P. Brent Trottier Middle School - \$3055.00**

"Learn to Code" is a program designed to introduce Trottier middle school students to the exciting field of computer programming. Trottier will receive 10 Chromebooks that will be used in an 8th grade computer coding elective class. Students will use the online tools, *Codecademy* and *Scratch*, to experience such hands-on projects as making an interactive website, working with HTML and JavaScript, and creating computer animations and games. Learning computer coding will increase the students' fluency with computational creativity and computational thinking so they can draw on these concepts across disciplines and in all aspects of their lives.

Create Cooperate Communicate

The Margaret Neary School Faculty, **Margaret Neary School - \$7132.87**

This grant will encourage students to create, cooperate, and communicate while learning by opening the doors to computer science and STEM (Science, Technology, Engineering, and Math). ***WeDo STEM Legos, Dash and Dot Robots, and Spark Digital Microphones*** will be purchased and utilized to introduce the Neary Students to robotics and coding

while integrating core subjects, developing interpersonal skills, and strengthening each student's oral presentation skills. Computer science education teaches students to think critically, use logic to plan complex tasks, communicate their thinking in a clear coherent manner, write codes to solve problems, and organize, make sense and communicate data that is gathered. STEM activities have been found to increase student engagement by transforming a teacher-centered classroom to a student-centered one. Problem solving, discovery, and exploratory learning drive a STEM lesson. Using the digital microphones, students will then be able to articulate their thoughts and ideas orally for all to hear. Bringing ***WeDo Legos, Dash and Dot, and Spark Digital Microphones*** into the curriculum at Neary can help foster lessons incorporating communication, STEM and computer science theories into the classrooms.

Activities to Improve Executive Function

Gwen Robison, **Albert S. Woodward Memorial School - \$687.67**

The ultimate goal of this project is to improve students' executive function skills to facilitate their development toward capable, independent learners. This project will provide direct instruction and related activities for students related to executive function skills such as mental flexibility, working memory, organization and categorization, attention, concentration and self-control and monitoring. Student and teacher awareness of executive function skills will increase as it becomes embedded throughout their school day.

Board of Health, NEVER Bored of Health

Mary Ellen Duggan, **Albert S. Woodward Memorial School - \$1561.23**

This grant will provide Woodward with the resources to create a comprehensive health curriculum and in doing so, enhance the students' overall health literacy and wellness. Frames will be installed around the school that will hold a weekly flyer focusing on health and wellness topics. In addition, lesson plans for 10 different health topics have been created and will be presented over a two-year cycle during students' enrichment lessons. "Board of Health, NEVER Bored of Health" supports the basic premise that children need to learn to be healthy and be healthy to learn!

Calm as a Cucumber

Cathy Wilson and Jocelyn Bossart, **Mary Finn School - \$1688.14**

The goal of this grant is to teach students to use positive communication habits to share their feelings, learn how to work through positive and upset feelings, and allow them to express emotions in a positive manner. The Mary Finn School has been awarded 13 Kimochi Cloud™ materials that will provide tangible tools to assist students with problem-solving, apologizing, and forgiveness. Kimochi Cloud™ can be incorporated into Finn School's Social Thinking and Zones of Regulation curriculum, as well as their Open Circle units. The social emotional learning provided by Kimochi Cloud™ will have a positive impact on school climate and promote academic, social, and emotional benefits for students.

Stand Up for Learning

Ann Thurber and Nicole McMahon, **Mary Finn School - \$5982.00**

The Finn School has been awarded 30 AlphaBetter Student Work Stations, which are standing work stations. Research has shown that standing work stations have been found to increase stamina for learning and improve classroom management. It is believed that children are not getting enough movement throughout the day. A standing work station with a movement bar at a student's feet allows students to fidget their feet and body, helping them to focus. Standing work stations have been shown to be an effective tool to provide children with opportunities to move while doing their work throughout the day. This will result in the children's increased ability to pay attention and fewer disruptive behaviors.

Lights, Camera, Action

James Randell, **Mary Finn School - \$3000**

The Southborough Education Foundation (SEF) will partially fund a more than \$13,000 project to install a new projector and screen into the cafeteria of the Mary Finn School. The Finn cafeteria is the space used for all major events at the school including whole school and CARE assemblies as well as professional development and faculty meetings. The addition of a new projector and screen will greatly enhance the meeting space at the Finn School.

F.I.T.: Future is Technology

Tiffany Goode, Tom McCabe, Melissa Nash, Stephen Felo, Ann-Marie Angus, and John Donovan, **Finn, Woodward, Neary and Trottier Schools - \$2400**

Each of the four Southborough elementary school Physical Education Departments will receive a FitnessGram 10 program. This computer program will enable the physical education teachers to both assess and track their students' health and fitness and they move throughout the schools within Southborough. The FitnessGram program allows students' fitness levels to be tested by conducting a variety of age appropriate assessments. The results of the

assessments are entered into the database and that information can be shared with the students at the end of the year. The FitnessGram program will allow the students to gauge their own fitness levels as well as monitor their progress from year to year and thus track their fitness levels as they grow.

MINI GRANTS 2015-2016

High School Green Screen Projects

Julie Doyle, **Algonquin Regional High School - \$499.00**

Green screen technology allows students to be transported to another location or time virtually. Students in a variety of classes have been using a new green screen at Algonquin to create videos for various class assignments. Videos have been made for such diverse subjects as U.S. History, Chemistry and Spanish Language. Students have been excited about the production of these videos and the use of the green screen will only continue to grow. The Padcaster Bundle was awarded to Algonquin to improve upon the current filming process. The Padcaster Bundle is a multifunctional iPad case with a wide variety of uses and attachments that can turn an iPad into an all-in-one production tool.

Trottier Family Cookbook

Lauren B. Infantino, **P. Brent Trottier Middle School - \$100.00**

This grant has been awarded to Trottier to allow for the printing of a cookbook that has been 7 years in the making. Family & Consumer Science teacher, Lauren Infantino, is retiring after teaching Culinary Arts at Trottier for 7 years. During that time she has compiled a treasure of tried and true, kitchen tested and child friendly recipes. Her students have spent countless hours compiling the recipes and editing the pages of this cookbook. This mini grant will provide the funding to print hard copies of the book to give to Trottier's 8th grade graduates who have spent 3 years in the school's test kitchens developing the recipes. A copy of the cookbook will also be available for downloading on the school website.