Venture
2017 Final Report
Venture’s mandate is to introduce children to the world of engineering, science, computers and technology in a fun and innovative learning environment. Specifically we aim to inspire and motivate youth to explore engineering and science through interactive hands-on programming.

Our goal is to make a positive impact on all involved and to dispel stereotypes associated with careers in engineering and science. We introduce students to the university environment, enabling them to pursue education after high school. We aim to be effective role models as people, as engineers, and as scientists. Venture welcomes youth from diverse and unique backgrounds. We reach youth in grades K-8 through outreach initiatives, curriculum based school workshops, and one of a kind summer programs.
Who We Are

The program was started in 1991 by Matt Scheben, Dr. Brian Allen and Carm Vespi. We are now finishing our 26th year engaging youth in STEM. Venture employs undergraduate engineering students to run our outreach initiatives, clubs, travelling workshops, and summer programming.

Who We Are
Venture Senior and Instructor Team 2017

Summer Program

29
Full-Time Engineering Students
May – June

School Year

7
Part-Time Engineering Students
September – May

Outreach

1
Full-Time
September – September
As another great year comes to a close, I would like to thank all of our supporters. Venture could not run without the continued support of the parents, teachers and national organizations that help us engage youth each year. Twenty-six years of Venture and we are still continuously updating our programming in order to keep up with technology. This year we introduced a new stream, Codemakers Advanced to further the growing technological literacy of Canadian youth. We have also refined our curriculum introducing week-long projects in order to dive deeper into certain subjects.

As Venture gets older we can really see the impact that we have on students that come through our programs. Many of our previous campers are now undergraduate engineering students and several of these campers are now a part of our instructor team. With the continued support of McMaster’s faculty of Engineering, mentors and staff Venture has achieved many successes this year. However, we would not be able to do this without the continued support of McMaster’s Faculty of Engineering, mentors and staff that make such programming possible. Venture will continue to expand and although I am moving on in my Engineering career, I cannot wait to see what Venture will accomplish in the future!

Glenne Grossman
Director
Venture

Carm Vespi
Manager
Alumni Relations and Youth Programs
Our Impact

✓ Engaged 14,856 students through travelling workshops
✓ Delivered summer programs to over 1,800 elementary school students
✓ Engaged 1,706 Indigenous students
✓ Provided volunteer placements to over 60 high-school students
✓ Awarded 23 bursaries total including 12 for Indigenous students attending summer programs
✓ Presented 20 scholarships for girls in grades 7 and 8
✓ Expanded program to engage over 18,000 students
We provide free curriculum-based travelling workshops to grade K-8 students in order to take STEM out of workbooks and into their hands!

522,000 face-to-face hours

56% increase in students reached from 2016

We traveled to 662 classrooms

Students Reached
Summer Program

We offer summer programs in 4 different streams: Computers and Technology, Engineering and Science, Yes SHE Can! and Codemakers. Our summer programs are offered for students in grades 1-8. We run these in addition to indigenous camps and sponsored camps.

Enrollment Statistics

2017 Gender Statistics
Indigenous Outreach

Our Outreach team provides many opportunities for Indigenous youth to become engaged in STEM through our travelling workshops in schools and at the Hamilton Regional Indian Centre, March Break camp, summer program and the annual overnight STEM Conference.

The STEM conference gives students the opportunity to come and spend two days at McMaster and experience life on a university campus. This initiative has continued to grow and excel through the years and in 2017 welcomed 246 students to campus accompanied by over 40 teachers and parents.
Indigenous Summer Program

Run along side Venture, our Outreach team delivers two weeks of programing for Indigenous youth in grades 5 to 8 and provides transportation to and from Six Nations and New Credit allowing for all students to participate. The curriculum links Traditional teachings with Western engineering and science practices to inspire youth to continue STEM throughout school.
Community Outreach

We pride ourselves in being a big part of our community, besides being known for our summer programs and travelling workshops, we attend local events such as BASEF and Innovation 150 at Cathedral. Our Outreach Team also participates in and runs programming with the YMCA and YWCA of Hamilton. This year we also have involved more parents and teachers than ever. We ran Mom’s Who Code to get women involved in STEM as well as attended STAO a science teachers conference.

<table>
<thead>
<tr>
<th>Event</th>
<th># Reached</th>
</tr>
</thead>
<tbody>
<tr>
<td>YMCA Beyond the Bell</td>
<td>282</td>
</tr>
<tr>
<td>Mohawk Career Fair</td>
<td>65</td>
</tr>
<tr>
<td>Healthy Eco Fair</td>
<td>135</td>
</tr>
<tr>
<td>Central Public Day of Code</td>
<td>171</td>
</tr>
<tr>
<td>March Break Camp</td>
<td>97</td>
</tr>
<tr>
<td>BASEF*</td>
<td>1,100</td>
</tr>
<tr>
<td>STAO</td>
<td>50 Teachers</td>
</tr>
<tr>
<td>Moms Who Code</td>
<td>14 Parents</td>
</tr>
<tr>
<td>Total</td>
<td>1914</td>
</tr>
</tbody>
</table>

*For grade 7 and 8

Venture works hard to provide programming for children who are less fortunate in our community. In order to help families going through a hard time and with the help of our summer program students we were able to donate thousands of food items to St. Matthews House and a generous gift to Ronald McDonald House.
**Girls Initiatives**

We ensure that females in STEM are never a second thought. We run several initiatives throughout the year to engage girls in science and engineering in a comfortable and exciting environment. Venture is looking to expand the girls programming for next year – introducing more weeks of sponsored camps for girls.

<table>
<thead>
<tr>
<th>Programming</th>
<th>Girls Reached</th>
</tr>
</thead>
<tbody>
<tr>
<td>Go CODE Girl*</td>
<td>36</td>
</tr>
<tr>
<td>Yes SHE Can! Club</td>
<td>15</td>
</tr>
<tr>
<td>Girl Guide Day</td>
<td>131</td>
</tr>
<tr>
<td>Pathfinder Day</td>
<td>48</td>
</tr>
<tr>
<td>Go ENG Girl*</td>
<td>78</td>
</tr>
<tr>
<td>Girls Summer Camps</td>
<td>135</td>
</tr>
<tr>
<td>YWCA STEM Girls</td>
<td>80</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>523</strong></td>
</tr>
</tbody>
</table>

*For girls in grade 7 and 8*
School Year @ Mac

Venture invites schools and individual students to participate in events here at McMaster throughout the school year. School’s come on field trips to experience STEM workshops here at Mac and we also run school year club days for children to experience ‘Venture Camp’ year-round.

<table>
<thead>
<tr>
<th>Event</th>
<th># Reached</th>
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</thead>
<tbody>
<tr>
<td>Homeschool</td>
<td>75</td>
</tr>
<tr>
<td>Balaclava</td>
<td>238</td>
</tr>
<tr>
<td>Ecole Forest Trail</td>
<td>298</td>
</tr>
<tr>
<td>Cathy Wever</td>
<td>52</td>
</tr>
<tr>
<td>Codemakers Club</td>
<td>15</td>
</tr>
<tr>
<td>Eng Experience Club 1-4</td>
<td>51</td>
</tr>
<tr>
<td>Eng Experience Club 5-8</td>
<td>36</td>
</tr>
<tr>
<td>Robot Experience Day</td>
<td>24</td>
</tr>
<tr>
<td>Gifted Program</td>
<td>32</td>
</tr>
<tr>
<td>Grad Track Event</td>
<td>75</td>
</tr>
<tr>
<td>St. Michaels</td>
<td>36</td>
</tr>
<tr>
<td>Total</td>
<td>932</td>
</tr>
</tbody>
</table>
Junior Counselors

Junior Counselors are high school volunteers that help out for a month at a time in our classrooms and labs to gain leadership experience and complete their volunteer hours. The High school students come out of the program with more confidence in their leadership skills and teamwork and have newfound knowledge about different sectors of engineering. Thirty-five out of our sixty Junior Counselors this year were past campers carrying on their love of Venture to a new generation!

“Being a Junior Counsellor really helped me to develop my leadership skills, I feel a lot more prepared for working now. I’m really happy with how confident I’ve become.”

“I liked getting more familiar with the university environment. It was fulfilling teaching younger kids science and engineering/computers and technology and fuel their passion”

60 high school volunteers

8,800 volunteer hours completed
We are very grateful to have good relationships with McMaster Faculty Members, students and Alumni who act as mentors for our students. Mentors come into our camp classrooms or we visit them in their labs to learn about fascinating research and jobs in STEM. Thank you to all the mentors who volunteered this year to help interest youth in STEM!

“Vous êtes en train d’accomplir une chose merveilleuse, en apportant les filles dans la science et l’ingénierie! Je suis très fier d’être partie du programme, et plus important encore, fier de vous!”
– Dr. Li, Yes SHE Can! Mentor

50 percent female mentors
136 hours of mentoring
Camper Quotes

“I already asked my mom if I can go next year.”
– Yes SHE Can!

“All the lessons tested our limits”
– Codemakers Introductory

“I love this camp and making new friends and learning how to make things like robots and fun cool things and I come every year”
– Computers and Technology 5/6

“This camp is really cool. I like it. It made me want to be an inventor when I grow up.”
– Computers and Technology 5/6

“I don’t know how they can make camp better, because they’re that good”
– Codemakers Advanced

“I learned a lot of stuff the average kid could not have known.”
– Computers and Technology 3/4

“Code is even more awesome than I thought it already was!”
– Computers and Technology 3/4

“I made something that is almost not possible”
– Engineering and Science 5/6

“It was so fun and you learn a lot”
– Engineering and Science 5/6

“This camp is the best camp that I have been in life.”
– Engineering and Science 3/4

“Venture gets more awesome every year”
– Engineering and Science 3/4

It is great how we didn’t just learn things for our grade we learned advanced engineering if we are up to it.
– Yes SHE Can!

“I’ve been going since grade one I like this camp so I’m going to continue next year and then go to LEAP”
– Computers and Technology 7/8

“I have learned a ton of new stuff that has gotten me really interested in coding. They explained everything in depth so we could understand it”
– Codemakers Advanced

“Everyday I learn something about computers, I want to become a professional coder”
– Computers and Technology 7/8

“They were really fun and spoke “kid” language to us and made it relatable”
– Engineering and Science 7/8

“In my opinion this camp was the best thing to happen to me since discovering the computer. I will definitely come back here again this year.”
– Codemakers Introductory

“Don’t change anything”
– Engineering and Science 7/8

“Everyday I learn something about computers, I want to become a professional coder”
– Computers and Technology 7/8

“They were really fun and spoke “kid” language to us and made it relatable”
– Engineering and Science 7/8

“In my opinion this camp was the best thing to happen to me since discovering the computer. I will definitely come back here again this year.”
– Codemakers Introductory
**Parent Quotes**

“My son] enjoyed going to the camp and learning all of the activities he learnt at it. He now understands why we save money for his college/education fund. Even at age 10, he is excited to learn all this as he grows and is looking forward to attending next year.
- Computers and Technology 5/6 Parent

“First time at Venture. Amazing experience. My daughter had no idea how much she would love Engineering camp. Asked to come back!”
- Computers and Technology 7/8 Parent

Well done Venture! You know it’s an outstanding camp when my son comes home and hugs me and says thank you for signing me up for camp Mom!! This was his 4th year in a row and he has already asked to go again next year. Thank you!! – Comp Tech 3/4

“My son came home extremely excited about the projects he worked on during the day, to the point where he continued to work on/take apart/rebuild his project. This then led to him creating more “projects” on his own.”
- Computers and Technology 3/4 Parent

This is the one camp that my son asks to attend each summer. This was his 5th summer back. And we will be a sure thing next summer too. Thank you for all your hard work and keeping the programs and learning so fun and inviting!
- Codemakers Introductory

"What my child did at camp was all we talked at dinner table for a week"
- Engineering and Science 5/6 Parent

“My daughter LOVED the dissection and wearing "real" glasses, gloves etc. in the lab! It seemed to spark a real interest in sciences and motivation to "go to Mac" when she's older."
- Yes SHE Can! Parent

All staff and admin are excellent. Very helpful and encouraging.
- Codemakers Advanced

Great first experience, she will come again for sure!
- Engineering and Science 7/8 Parent

Amazing camp very interactive!
- Engineering and Science 7/8 Parent

My child had such a terrific time! We'll be back next year for sure!
- Engineering and Science 1/2 Parent
Special Thanks

Our Sponsors:

- General Motors of Canada
- Ontario Power Generation
- Ontario Society of Professional Engineers
- Lifetouch Canada
- The Rotary Club of Hamilton
- John Deere Foundation of Canada
- Camp XIII, McMaster, Kipling Wardens
- Faculty of Engineering, McMaster University

Donors in Kind:

- Panasonic Canada Inc.
- 3M Canada

Partners:

Actua provides training, resources and support to its national network of members located at universities and colleges across Canada in the delivery of science, technology, engineering and mathematics (STEM) education outreach programming. Each year, these members engage over 225,000 youth in 500 communities nationwide. Please visit Actua at www.actua.ca.