Our annual report shares work for the time period between September 2018 to August 2019

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MESSAGE FROM CHAIR

I am truly honored to serve as the Board Chair for Visions of Science, an organization that leads with vision and integrity at the forefront and a commitment to empowering youth at the centre.

As we have grown more focused, we have implemented STEM Camps in three communities across the GTA to extend the impact of STEM Clubs into summer terms. It has been incredible to see STEM Leaders become a more robust and substantial program as youth are now able to access continued support, opportunities to build on their learning, and grow their capacity as leaders - all the while being empowered with the tools to elevate their own communities.

The incredible commitment and leadership of the staff and Board of Directors in 2018-2019 has guided the organization through incredible growth and expansion and we’re excited to continue shaping the face of STEM learning to make it inclusive and accessible!

MESSAGE FROM CEO

It has been another exciting year at Visions of Science! With consistent support, we have continued to expand our reach to engage more youth and develop innovative programming in response to community needs. Our initiatives engaged over 1000 youth from over 25 communities and included the launch of our first STEM Camps program! We also extended our “network for learning” with exciting new collaborations with organizations such as MLSE LaunchPad and EcoSpark.

A huge thank you to our funders and partners who share in our vision and have invested in seeing it come to a reality. Thank you to our strong team of staff and volunteers who have contributed countless hours into taking STEM learning to new heights and making everything that we do so successful—a dream team indeed!

The youth that we serve across the GTA continue to be the key driver behind our success and motivator for our growth. They are true Agents of Change who are already making strides in shaping their communities for the better. Their questions, ideas, and growing confidence give us a glimpse of the future of STEM in Canada and beyond - onwards and upwards!

A. S.
Adnan Syed
Board Chair, Visions of Science
Twitter: @Adnansyed786

E. D.
Eugenia Duodu, Ph.D.
CEO, Visions of Science
Twitter: @EugeniaDuodu

WORDS FROM OUR SUPPORTERS

“Toronto Foundation is committed to building capacity in the not-for-profit sector by supporting high-impact initiatives and leaders tackling our city’s inequities. At the Foundation, we have been inspired by Visions of Science, a two-time recipient of the Vital Ideas and Leadership grant, as they continue to invest in young people’s futures by making STEM learning opportunities accessible.”
— Sharon Avery, President & CEO, Toronto Foundation

“Visions of Science demonstrates that when young people are welcomed into a culture of curiosity, and accompanied by reliable mentors, the world becomes a fascinating and engaging place. The W. Garfield Weston Foundation is extremely proud to support this programming which equips students with the tools, skills, and support they need to delve into STEM programming without hesitation.”
— Eliza Mitchell, Director, The W. Garfield Weston Foundation

“RBC is committed to empowering youth to succeed in a drastically changing workforce. We are proud to support Visions of Science’s STEM Leaders, a program which meaningfully connects immersive learning experiences with critical skill development - all with the goal of preparing youth for the STEM careers of tomorrow.”
— Mark Beckles, Senior Director Youth Strategy & Innovation, RBC
WHO WE ARE

Visions of Science Network for Learning Inc. (VoSNL) is a charitable organization that aims to advance the educational achievements and positive development of youth from low-income and marginalized communities through meaningful engagement in science, technology, engineering, and mathematics (STEM) fields and research.

STEM learning is key for accessing the careers of the future and also to foster important critical thinking, problem-solving and analytical skills. However, youth from low-income communities face multiple barriers to meaningful STEM engagement and are persistently left out of access to the opportunities that are required for future engagement and success. Our short and long-term programs engage 1000 youth from over 25 communities across the Greater Toronto Area (GTA).

We aim to bridge the “opportunity gap” by harnessing accessible STEM learning as a vehicle for change. Creating consistent environments where youth can be:

- Connected
- Competent
- Curious
- Confident

YOUTH WHO ARE WELL PREPARED TO SUCCEED IN A CONSTANTLY EVOLVING SOCIETY

25+ communities across the GTA

1,000+ youth served annually

12,000+ youth engaged since 2004
WHAT WE DO

Our programs and initiatives create an accessible and supportive STEM learning network. This ensures that our participants are knowledgeable in STEM fields, skilled and confident as they progress from childhood, to adolescence, and into adulthood.

PROGRAM MODEL

Mentorship from caring staff and volunteers
Accessible, hands-on STEM learning opportunities
Network of partners
Positive youth development opportunities

PROGRAM OUTCOMES

Improved perception of STEM
Increased STEM knowledge and skills development
Improved self-awareness, relationship skills and leadership
Increased academic and career readiness

PROGRAM OVERVIEW

DEPT OF IMMERSION

STEM Leaders
STEM Clubs
STEM Camps
Outreach Workshops

Ages 8-14
Ages 8-12
Ages 8-14
Ages 13-18

TIME

2018/19 ANNUAL REPORT
PROGRAMS & INITIATIVES

STEM CLUBS

A weekly, long-term program that offers youth (ages 8-13) ongoing opportunities to explore hands-on, inquiry-based STEM learning and develop critical thinking and foundational learning skills. We strive to create a ‘network for learning’ by partnering with housing providers, postsecondary institutions, and community-based groups and organizations to deliver the program directly within their communities.

HANDBS-ON STEM LEARNING

STEM Clubs are designed to “spark and sustain interest” by bringing youth hands-on STEM workshops in the form of experiments and field trips to STEM-based institutions. With an inquiry-based approach to learning at the center, youth are encouraged to ask questions, make observations, and develop ideas.

SOCIAL EMOTIONAL LEARNING

A significant emphasis is placed on developing the socioemotional skills of youth including confidence, leadership and more with support from caring and consistent facilitators.

26 weekly sessions from September to May

2 hour-long weekly workshops

IMPACT

83% of participants found science more enjoyable

80% of participants felt more confident that they could succeed in science

74% of participants cited improved teamwork skills

72% of participants reported they were more resilient when faced with difficult problems

“Last year, Sara had an improved perspective on STEM, however she struggled with confidence in her ability to “do science”. Through encouragement, positive feedback, and opportunities, she has not only maintained her positive outlook on STEM, but she has also developed her sense of confidence and belonging while engaging in STEM.”

— Program Facilitator, STEM Clubs

Name of participant has been changed to protect their privacy.
This year approx. 500 youth from 24 communities across the GTA took part in the 26 week program. Workshops included exploring a wide range of STEM disciplines including developing innovative wearable technologies, learning about the effects of oil spills on the environment by creating an in-club simulation, and applying the science of sound to create a short movie. Through teamwork, collaboration and self-discovery activities, youth also had the opportunity to develop key social-emotional learning skills. Clubs concluded with a Visionary Expo celebration where youth presented their learning from the year to community members, families, and stakeholders.

The Ontario Science Centre is more than a science museum to us. For over 10 years it has been an integral part of our journey to immerse youth in interactive, hands-on learning. As we have grown as an organization, so has our partnership in order to engage a greater number of youth in a wider range of ways.

"The Visionary Expo that Visions of Science holds every year brings hundreds of youth in contact with the excitement of scientific inquiry through an enthusiastic science competition and related programming. Being the venue for this exciting culminating activity for the last three years is one of the ways in which the Ontario Science Centre fulfills our strategic engagement platform of supporting youth innovation and being a community hub."

— Dr. Maurice Bitran, CEO of the Ontario Science Centre

From engaging field trips where youth explored innovative exhibits all the way to bringing our annual Visionary Expo to life – the Ontario Science Centre has been essential to supporting our mission and we are so grateful!

VISIONARY EXPO

Our annual event to mark the end of STEM Clubs, the Visionary Expo brings over 700 program youth, parents, and community members to the Ontario Science Centre for a celebration of STEM learning. The main showcase is an opportunity for youth to present their learning through science-fair style presentations featuring interactive demos, developed and implemented with the support of facilitators. This year’s award winning presentations included capturing the audience in life-size bubbles and employing Virtual Reality (VR) headsets to take them on a tour of their community.

From 2016 to 2019, the Ontario Science Centre was the venue for this exciting culminating activity for the last three years. The Ontario Science Centre is more than a science museum to us. For over 10 years it has been an integral part of our journey to immerse youth in interactive, hands-on learning. As we have grown as an organization, so has our partnership in order to engage a greater number of youth in a wider range of ways.

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NEW PROGRAM
STEM CAMPS

This summer, we implemented full day, 2 week-long STEM Camps in 3 target communities engaging over 60 youth ages 8-12 years old. This program was developed in response to a growing need for continued engagement during summer months and serves as an extension of STEM Clubs. Participants explored different aspects of STEM learning including taking part in a citizen science workshop by EcoSpark where they applied their STEM learning in the field.

The program concluded with an ‘Innovation Competition’ where youth developed and prototyped inventions - addressing real-world problems they face in their local communities.

A special thank you to RBC for acting as guest judges and asking youth the hard-hitting questions!

“I felt really proud of myself that I worked so hard, and persevered.”

“My confidence has changed. I’m not that shy in public speaking and I am better at science.”

— Participants, STEM Camps

RESEARCH

In 2017, we began a partnership with Dr. Carol-Ann Burke of the Ontario Institute for Studies in Education (OISE) at The University of Toronto to identify ways in which informal science education can act as a means of facilitating and prolonging student engagement in science. In this two phase research project, we collaborated to design and introduce a community-responsive pilot STEM club in the Rexdale community.

During the 23-week program led by our facilitator team, participants played a major role in directing the curriculum through incorporating their interests into weekly experiments. Based on feedback from participants and teachers, the pilot program was a huge success! Results from the study will inform future in-school engagement strategies, as well as how we partner with the community to support the development of children and youth.

This research study was funded by The Council of Ontario Directors of Education. To read the full report, please visit: www.vosnl.org/research-and-advocacy.
STEM LEADERS

The STEM Leaders program builds on youth learning from STEM Clubs and STEM Camps, targeting ages 13-18 years old. Directed towards the pursuit of post-secondary education and advanced career aspirations, the program engages youth in 4 areas: experiential STEM learning, leadership and positive skills development, academic and career readiness, and community engagement. This year we engaged 58 youth from 18 communities from across the Greater Toronto Area.

During the fall and winter terms, participants served as “Youth Facilitators” in their local STEM Club where they worked alongside the facilitator team to plan and implement weekly workshops in their communities. A consistent, long-term opportunity, this role seeks to intentionally build capacity as leaders through meaningful coaching and modeling. Youth also took part in a three-day March Break camp at YMCA Cedar Glen consisting of challenge-based activities with the goal of developing key critical skills. The program also provides a forum for youth to contribute to their communities as leaders and facilitators.

This year, STEM Leaders cumulatively contributed over 2500 hours back into their community!

80 hours of volunteering in their communities

260 hours of programming per year

LEADERSHIP AND POSITIVE SKILLS DEVELOPMENT

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COMMUNITY ENGAGEMENT

IMPACT

“Having a group of kids to facilitate every Saturday really improved my skills as a leader. It has allowed me to be able to acknowledge everyone in the group and let them know that they are all valued and important.”

“The leadership skills we have learned here I will take back to my community STEM Club to better the experience for the participants.”

— Participants, STEM Leaders

95% of youth reported improved leadership skills

87% of youth indicated that they have built strong and healthy friendships
For 7 weeks this summer, 35 youth from 19 of our target communities participated in a wide range of immersive STEM experiences including:

- Financial Literacy Workshop with an engaging visit to RBC
- A digital literacy and problem-solving workshop with Ernst & Young
- A week-long immersion camp at University of Toronto Mississauga (UTM), including the Amgen Biotech Experience

Many of the young leaders also took on additional roles in STEM fields including:

- Working on research projects with University of Toronto (UofT) Department of Chemistry and the Dunlap Institute of Astronomy and Astrophysics
- Acting as Guest STEM Facilitators in the Lay-Up Youth Basketball Camp
- Job shadowing opportunities including with the Zoologists at The Toronto Zoo
- Job Placements including with
  - A Toronto-based software company
  - Visions of Science’s main operations including developing curriculum and facilitating STEM Camps

**IMPACT**

**90%** of youth reported improvements in their confidence in STEM

**80%** of youth reported that they are more focused on their academic and career goals

“I am no longer afraid of STEM related courses and find myself excelling in these same courses that were once “scary” to me. I am no longer scared of my future or where my career is headed.”

“I now know how to work better and effectively with adults. I know how to conduct myself in a professional manner as a result of working with partners.”

“I learned about radio telescopes and how to analyze the images they take. I also learned what astronomers do in their day to day life.”

— Participants, STEM Leaders

“My journey started as a participant in Visions of Science’s STEM Clubs, when I was in Grade 4. Once I joined the club that took place in Victoria Park, that spark I had ignited, and I was intrigued by the experiments that we did there every week. I became eligible to join the STEM Leaders program in its inaugural year. I was pushed out of my comfort zone with the help of the team-building workshops, overnight trips at the University of Toronto Mississauga and St. George Campuses and presentations held by organisations like RBC. I got to experience different STEM careers and was able to talk to different professors, which was a big asset when I started thinking about what I wanted to become when I grew up. My personal development skyrocketed as I learned important skills such as active listening, managing my finances, and more. I also became a Youth Facilitator which meant I was given an opportunity to give back to my community by facilitating the STEM Club that I once was a participant in.

I find it most fitting that my first job placement was also provided to me by Visions of Science. As part of the Curriculum Development Team, I strove to make the curriculum implemented in STEM Clubs comprehensible and engaging for our participants and facilitators. I am truly privileged to influence such a huge part of the organisation and the lives of young people in the GTA. Thank you for being major stakeholders in our future development as young adults, allowing us to have an opportunity to develop skills, sparking our interests and more.”

— Micah, STEM Leader
NEW PARTNERSHIPS

MLSE LAUNCHPAD

We joined forces with the MLSE Launchpad to co-develop a STEM and Sport program for Grade 7 and 8 students! This program teaches Ontario curriculum-linked STEM concepts through active sports-based engagement and has engaged 396 youth from 11 schools this year. The interactive STEM lessons coupled with on-court sport for development workshops have enabled youth to learn about "ecosystems" through soccer, "coding" through football and much more! We anticipate that through this partnership, sports engagement will be increasingly seen as a viable conduit for STEM learning.

ECOSPARK

This summer, participants of the STEM Leaders and "new" STEM Camps program got their feet wet in an exciting new collaboration! Youth became citizen scientists as they took part in a variety of engaging hands-on workshops delivered by EcoSpark, empowering them to take an active role in the protection and sustenance of their local environment. Workshops included collecting samples to explore the health of a local river and contributing their findings to a real database used by scientists. Participants walked away with an increased ability to implement their STEM skills and knowledge in the field.

“We found a crayfish. It was actually so cool... And they said if you find a crayfish, it's actually that the water's really healthy over there, and good for fish.”

— Participants, STEM Camps

“IT TAKES A VILLAGE”

It takes a knowledgeable and dedicated support system to drive the impact that we want to see in communities. Our impact would not possible without the motivated team of individuals that are representative of the communities we serve and passionate about empowering youth - coming together to bring our programs to life.

We’re committed to providing development opportunities for our program participants and facilitators to grow as leaders and refine their skills in meaningful community engagement. This year, our summer staff team included youth from the STEM Leaders program.

FACILITATORS

With a team of 175+ individuals dedicated to bringing our vision to life, our team of facilitators truly are the backbone of our organization. It is their commitment to inspiring youth through STEM and their dedication to the communities we serve that makes our impact possible. This year, we engaged 100+ volunteer facilitators who cumulatively contributed 7000+ hours of community service.

Thank you for bringing our mission to life - your hard work is reflected in the youth empowered and the communities elevated!

“The past 6+ years with Visions has been great. I have enjoyed my time as a volunteer, summer staff and program facilitator. This organization has created space and provided an opportunity for me to grow, learn and challenge myself forward. I am grateful for the support over the years. I have learned so much about non-profits, systems, and being meticulous with program planning and implementation. I will continue to carry this insight with me as I go on. The roles I have filled have broadened my understanding, stirred a gentle fire within me, and expanded my capacity to love.”

— Mithula, STEM Club Facilitator
All financial data presented is from our 2018 financial statements audited by Pennylegion Chung LLP for the period January 1, 2018 to December 31, 2018. For a full copy of our 2018 audited financial statements please visit: www.vosnl.org/finance-and-transparency

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Excess of revenue over expenses for the year | $75,058 | $2,898 |
Net assets, beginning of year | $5,304 | $2,406 |

**NET ASSETS, END OF YEAR** | $80,362 | $5,304
SUPPORTERS

FUNDING PARTNERS

Visions of Science gratefully acknowledges the support of our funders and program partners.

VISIONARIES

MAJOR PROGRAM PARTNERS

It is with the support of a diverse network of program partners that we are able to engage youth in multifaceted STEM experiences. We deeply value the incredible program partners who not only support our vision but help us bring it to life.

INNOVATORS

AMBASSADORS

BUILDERS

VISIONARY GALA SPONSORSHIP

We also acknowledge those funders that give to the organization anonymously.
We constantly seek to deepen our impact in communities. Whether this means expanding our programs to engage new youth or enhancing our programs to engage current youth in a new way, we are always excited for the next adventure! As always, we will continue to inspire, empower, and elevate youth through meaningful STEM engagement.

In order to provide barrier-free support to youth, we offer all of our programs FREE of charge. By making a donation, you ensure more youth are reached through meaningful STEM programming and mentorship. Please consider making a donation at www.vosnl.org/donate.