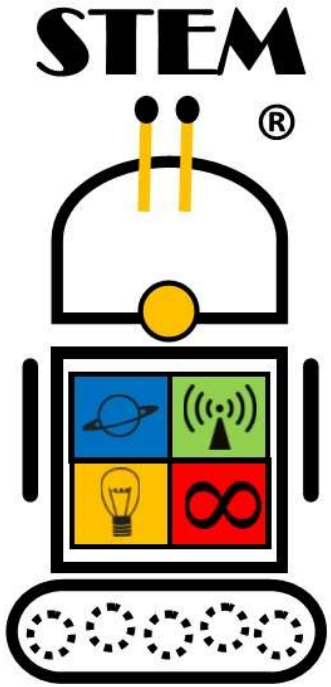
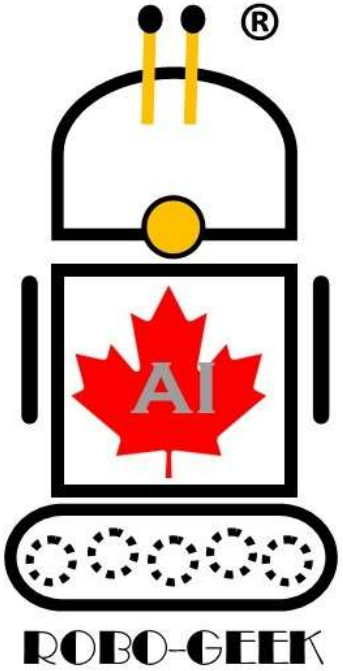
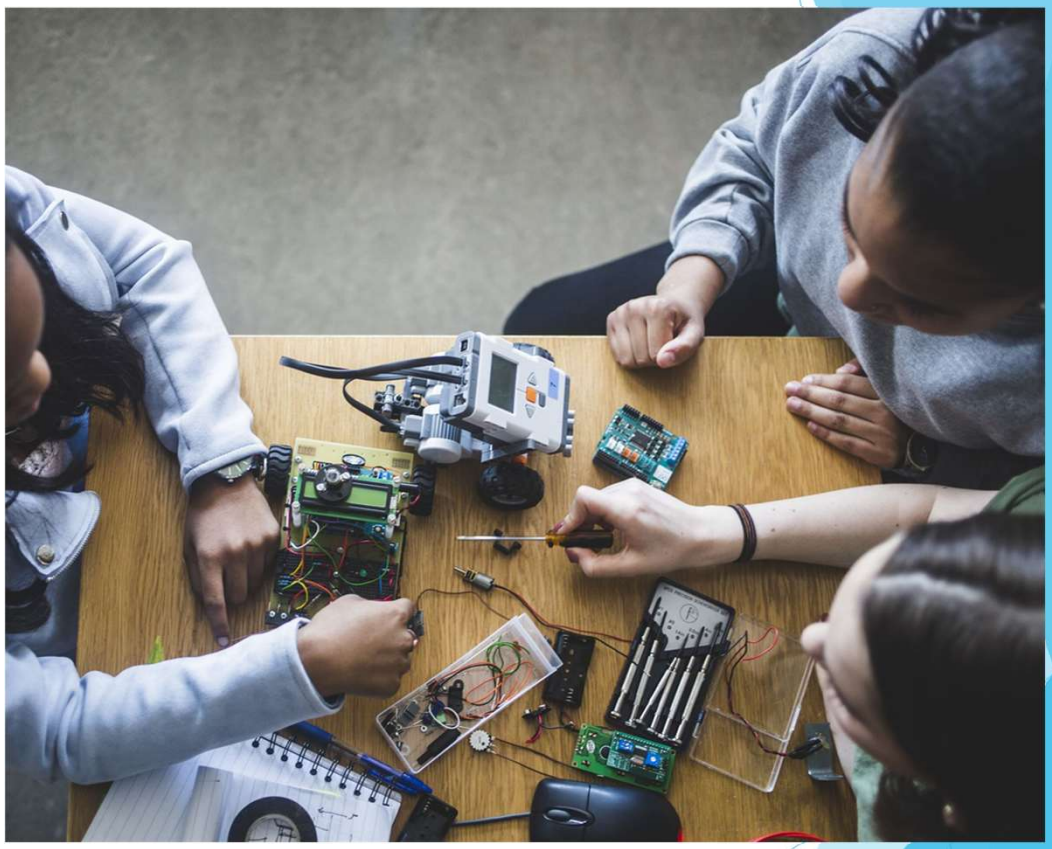
ROBO-GEEK Workshops





Enhancing STEM & AI Courses with Robo-Geek

Revolutionizing learning through interactive education tools



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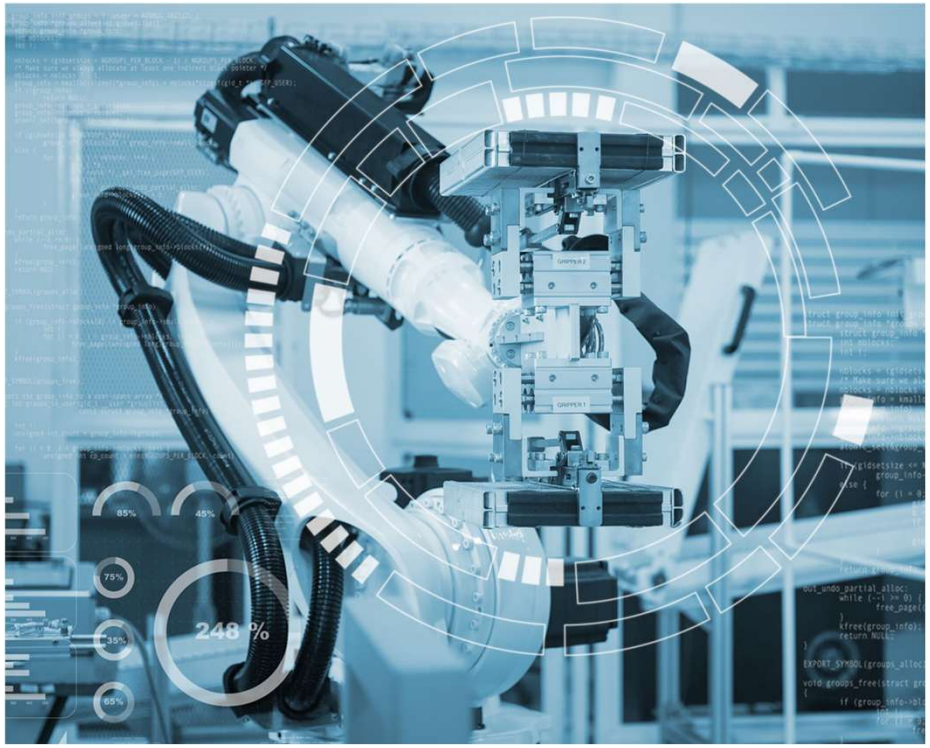

Ignite STEM Learning

- Learning by Doing
- Cutting-Edge Curriculum
- Explore Key AI Concepts: Students will dive into the fascinating world of AI, covering topics like Machine Learning (ML), Natural Language Processing (NLP), Computer Vision (CV), and more.
- Trained Instructors
- Hands-On STEM Education

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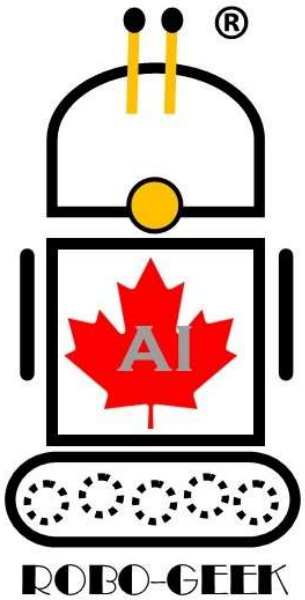
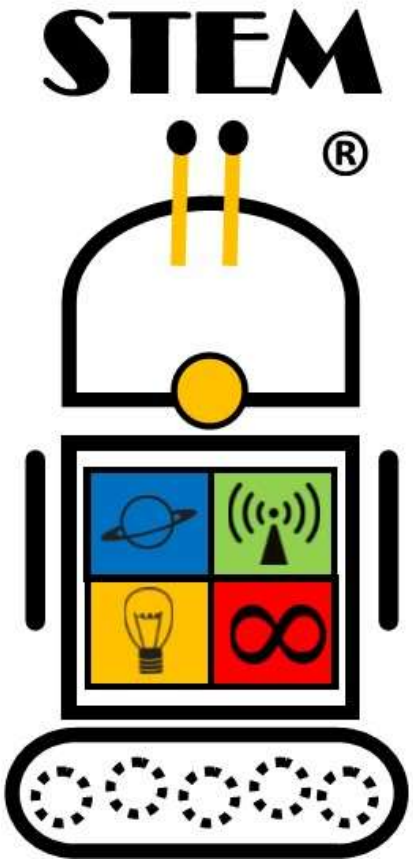
Robo-Geek Inc.

- **Robo-Geek** is a technology company founded by engineers to promote **STEM**, intending to foster students' confidence and "I Can do it" attitude.
- Our staff consists of ***enthusiastic*** *engineers* who have carefully designed all the courses to ensure the best learning experience for each student.
- Our courses are for students in grades 2 through 12 to introduce them to different programs of Coding, Electronics, and Robotics.
- Each course includes direct work with computers, electronic boards, robots, and unique labs encouraging self-learning and experimentation.
- Our advanced courses submerge the students in exciting subjects of **Game Programming, Computer Vision, and AI (Artificial Intelligence).** Students are motivated to experiment and ***unleash their imaginations***.



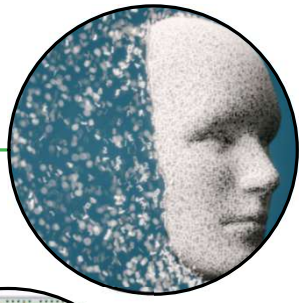


Robo-Geek Inc.

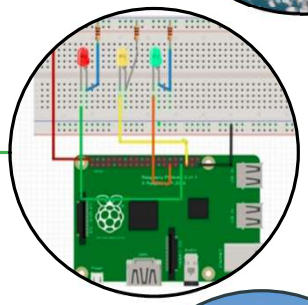
- **Hands-on Experience:** Our students learn by doing; Robo-Geek's sessions consist of fifteen minutes of lecture and 30 minutes of lab. Each Robo-Geek lab has been tested and designed to optimize topic comprehension.
- **Continuous Innovation:** Our courses are at the leading edge of technology. We pride ourselves in the development and continuous innovation of our unique labs.
- **Promotion of STEM:** Our labs and exercises focus on expanding students' knowledge in science, technology, engineering, and mathematics.
- **AI:** An introduction to Artificial intelligence, ML (Machine Learning), NLP(Natural Processing), Conversational Ai, CV (Computer Vision), and Anomaly Detection.

Our Philosophy

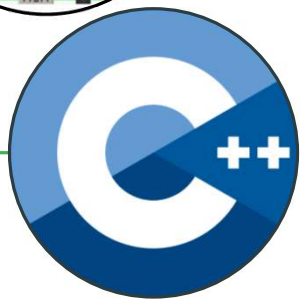
IMAGINE
THINK
CREATE



Robotics
& AI



Electronics
&
Mechatronics



Coding

MILESTONES

- Founded in 2015 at the Milton location, Robo-Geek started with two courses, 10 Raspberry Pis, and big dreams.
- In early 2016, Robo-Geek moved to Milton Education Village, where we have been part of a great community of technology entrepreneurs.
- In the Fall of 2016, Robo-Geek launched the STEM Club and Robotics Club. Our commitment is to stay current and innovate.
- In 2017, we solidified a re-seller partnership with **EZ-robots** and **Qihan Technologies.**
- Summer of 2017, we opened our new location in Brampton.
- In the Fall of 2017, Robo-Geek launched the Self Driving car project in the STEM club.
- In 2018, we supported multiple workshops across GTA with students from JK to G12 and with many educators.
- In the Fall of 2018, Robo-Geek added ROS (Robotics Operating System) to its curriculum.
- In June 2019, Robo-Geek moved to operate online.
- In December 2022 we introduced Advanced Game Programming with C++ and Epic Games platform.
- In September 2024 we introduced courses en AI (Artificial Intelligence for Adults and Teens).

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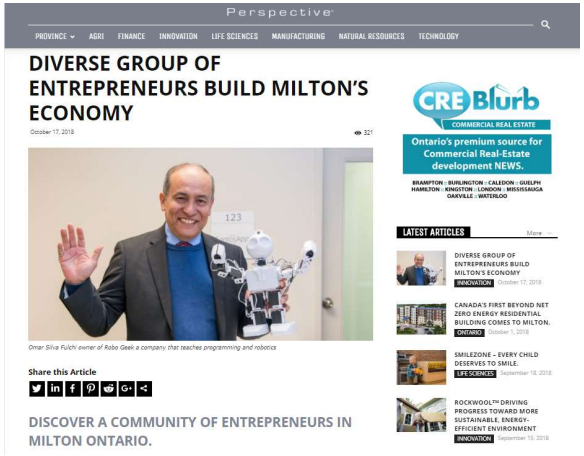

STEM®

Accomplishments

- Over 2000 students in the past 7 years
- 40 courses now offered in our programs: RG-100 to RG-2000 level
- 20 completed projects with STEM and Robotics clubs
- 29 workshops in STEM, Coding, and Robotics
- Our team has grown to 5 instructors and 8 teaching assistants (students)
- Offered over $5000 in scholarships with multiple partnerships in our communities.

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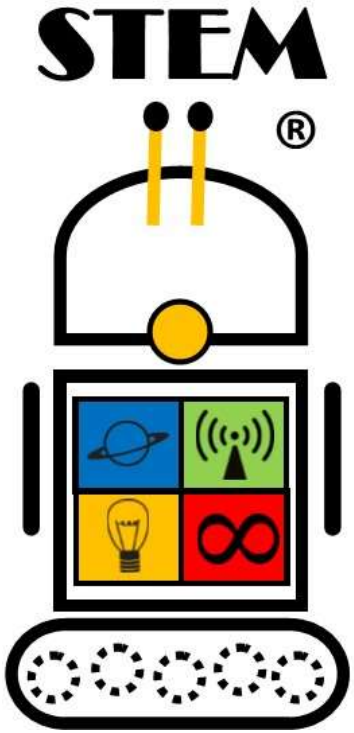

Robo-Geek Workshops

Supporting educators with STEM curriculum

About our Workshops

- Unique in Canada. Developed by the Robo-Geek team to maximize the learning process with a hands-on approach to learning.
- Robo-Geek offers a variety of single-day workshops at school, and we work with private and public schools with special requests requiring multiple-day workshops.
- Upon request and depending on school facilities, our team can deliver workshops at your facilities.
- Our workshops are aligned with Ontario Curriculum for Elementary and Secondary for Science, Mathematics, and Technology
  - http://www.edu.gov.on.ca/eng/curriculum/elementary/index.html
  - http://www.edu.gov.on.ca/eng/curriculum/secondary/index.htm

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Grades 1-8 science and technology

STRANDS IN THE SCIENCE AND TECHNOLOGY CURRICULUM

The science and technology curriculum expectations are organized in four strands, which are the major areas of knowledge and skills in the science and technology curriculum. The four strands are as follows:

- Understanding Life Systems
- Understanding Structures and Mechanisms
- Understanding Matter and Energy
- Understanding Earth and Space Systems

Ontario Science Curriculum – Science and Technology Studies Grades 1-8

Elementary Science and Technology Curriculum Overview				
	Understanding Life Systems	Understanding Structures and Mechanisms	Understanding Matter and Energy	Understanding Earth and Space Systems
Grade 1	Needs and Characteristics of Living Things	Materials, Objects, and Everyday Structures	Energy in Our Lives	Daily and Seasonal Changes
Grade 2	Growth and Changes in Animals	Movement	Properties of Liquids and Solids	Air and Water in the Environment
Grade 3	Growth and Changes in Plants	Strong and Stable Structures	Forces Causing Movement	Soils in the Environment
Grade 4	Habitats and Communities	Pulleys and Gears	Light and Sound	Rocks and Minerals
Grade 5	Human Organ Systems	Forces Acting on Structures and Mechanisms	Properties of and Changes in Matter	Conservation of Energy and Resources
Grade 6	Biodiversity	Flight	Electricity and Electrical Devices	Space
Grade 7	Interactions in the Environment	Form and Function	Pure Substances and Mixtures	Heat in the Environment
Grade 8	Cells	Systems in Action	Fluids	Water Systems
Grade 9 and 10 Technological Education Curriculum Overview				
Grade 9	Exploring Technologies Students will be given the opportunity to explore technology concepts that they will need in order to create designs, utilize software, fabricate products, document events, and prepare goods and services. This exploratory course provides a link between the concepts and skills studied in the elementary science and technology strand called Understanding Structures and Mechanisms and the topics studied in various subject areas of broad-based technology. Students will gain awareness of educational and training requirements for technology-related opportunities.			
Grade 10	Hairstyling and Aesthetics Health Care Hospitality and Tourism	Technological Design Manufacturing Technology Construction Technology	Communications Technology Computer Technology Transportation Technology	Green Industries

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Grades 1-8 science and technology

Elementary Science and Technology Curriculum Overview				
	Understanding Life Systems	Understanding Structures and Mechanisms	Understanding Matter and Energy	Understanding Earth and Space Systems
Grade 1	Needs and Characteristics of Living Things	Materials, Objects, and Everyday Structures	Energy in Our Lives	Daily and Seasonal Changes
Grade 2	Growth and Changes in Animals	Movement	Properties of Liquids and Solids	Air and Water in the Environment
Grade 3	Growth and Changes in Plants	Strong and Stable Structures	Forces Causing Movement	Soils in the Environment
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Grade 10	Hairstyling and Aesthetics Health Care Hospitality and Tourism	Technological Design Manufacturing Technology Construction Technology	Communications Technology Computer Technology Transportation Technology	Green Industries

Available Workshops:

RG-STEM-01: Bridge Design G 1-6
RG-STEM-02: RPI (Raspberry PI) G 5,6,7,8
RG-STEM-03: Solar System G 6, 7
RG-STEM-04: Turing Machine-AI G 6, 7, 8
RG-STEM-05: Gravity G 4, 5, 6
RG-STEM-06: Intro to Electricity G 6, 7, 8
RG-STEM-07: Neural Networks G 7, 8
RG-STEM-08: Self Driving Cars G 7, 8
RG-STEM-09: Intro to Robotics G 5, 6, 7, 8
RG-STEM-10: Intro to Coding G 1-6
RG-STEM-11: Intro to Python G 5,6,7,8
RG-STEM-12: Intro to Arduino G 5,6,7,8
RG-STEM-13: Mini Factory G 5,6,7, 8
RG-STEM-21: Intro to Java G 5,6,7,8
RG-STEM-26: Intro to C++ G 5,6,7,8
RG-STEM-29: Plane Workshop G 1-6

Ontario Science Curriculum – Science and Technology Studies Grades 1-8

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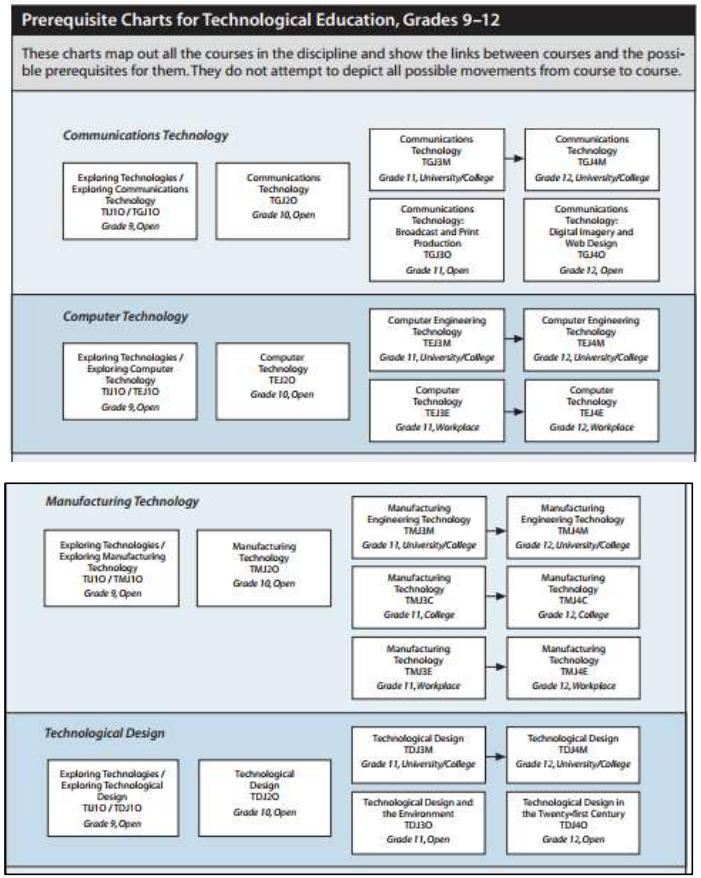
Grades 9-12 Technology



Ontario Science Curriculum – Technology Education Grades 9-12

Available Workshops:

RG-STEM-04: Intro to AI(Artificial Intelligence) G 9-12
RG-STEM-07: Neural Networks G 9-12
RG-STEM-08: Self Driving Cars Intro G 9-12
RG-STEM-11: Python G 9-12
RG-STEM-15: Electronics + Arduino G 9-12
RG-STEM-16: Neural Networks Advanced G 9-12
RG-STEM-17: Self Driving Cars Advanced G 9-12
RG-STEM-18: Computer Vision with Python G 9-12
RG-STEM-19: Manufacturing Workshop G 11,12
RG-STEM-20: Internet of Things (IoT) G 9-12
RG-STEM-21: Introduction to Java G 9-12
RG-STEM-22: Intro to PythonRobotics G 9-12
RG-STEM-23: Robotics- Path Tracking, SLAM G 9-12
RG-STEM-24: Android Studio with Java G 9-12
RG-STEM-25: Introduction to C++ G 9-12
RG-STEM-26: Advanced C++ G 9-12
RG-STEM-27: AI-ML-Deep Learning Intro G 9-12
RG-STEM-28: Epic Games with C++ G 9-12
RG-STEM-29: Pygame with Python G 9-12

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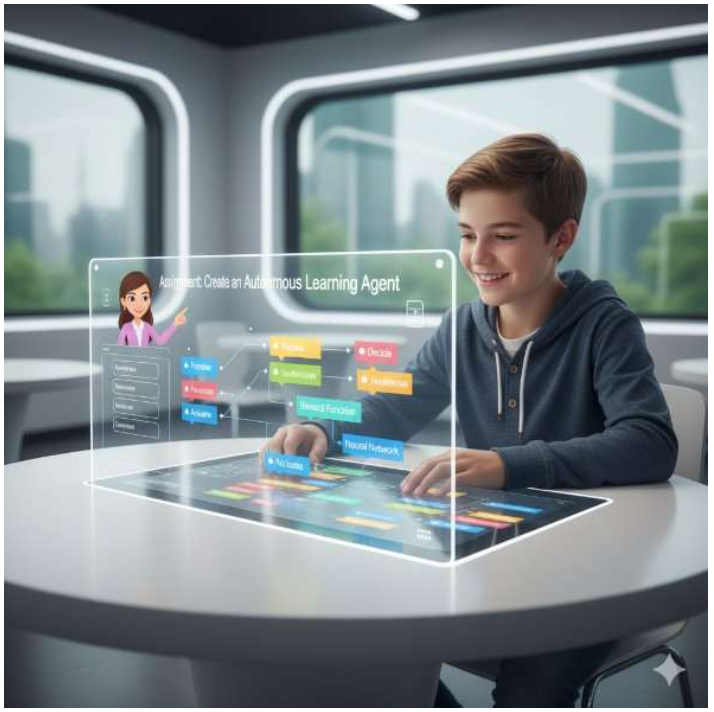

Robo-Geek Inc.

List of Schools for workshops (On-site & at Robo-geek)

Almaguin Highlands Secondary School - South River
Fairlawn Public School - Milton
Meadowvale Secondary School - Mississauga
St. Vincent de Paul School -Mississauga
Montessori School of Milton
Montessori School -Caledon
Halton Hills Public Library
Montessori School of Milton
Walden International School
Sterling Education – Mossley Campus
St. Cecilia School -Brampton
T.L. Kennedy Secondary School- Mississauga
Wali ul Asr Learning Institute
Al Huda Elementary School- Mississauga

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Columbia International College - Hamilton
Grand Erie District School Board
St. Timothy's- Burlington
MM Robinson High School - Burlington
Lakeview Montessori- Windsor
St. Francis Xavier Catholic Secondary School, Milton
Heart Lake Secondary School, Brampton

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