

ENGINEERS OF TOMORROW
PRESENTS

2021/2022 EIR Program



Image: engineer volunteer John Nasar with his EIR class at St. Joan of Arc

EIR Program Overview

The Engineer in Residence (EIR) program is a STEM outreach program, provided by the registered charity, Engineers of Tomorrow, reaching elementary and high school students.

Volunteer engineers bring a real-life dimension to the curriculum, using hands-on projects, presentations and other activities in the classroom. By sharing their personal stories and passion for their profession, the engineer's presence in the classroom puts a face to engineering.

With over 20 years of experience, this program uses proven outreach materials and strategies, continuing to deliver high-quality STEM outreach to schools across Canada.

Core Values



Experiential

Creating positive experiences for students around STEM and applying academic learning to possibilities

Inclusive

There's a place for you in engineering! We need diverse thinkers to solve the complex problems of the 21st century.

Real

Real engineers, real application of academic learning and real impact.



Why EIR Program?

THE EIR PROGRAM IS FLEXIBLE AND CROSS CURRICULAR

Exposing students to engineering in a way they've never experienced before - the social impact of engineering, ***connecting curriculum learning to real world problems*** and solutions.

Because the engineer is paired with a class for an ***entire school year***, they have the opportunity to become a mentor and role model for students that may not have had engineering, or other STEM professions, on their radar.

The EIR program supports core science, math and technology learning by ***bringing it to life*** with engineer applications.



Engineer-in-Residence

2021/2022

**ADVISORY
BOARD**

THANK-YOU TO THE 2021/2022 EIR ADVISORY BOARD

A dedicated team of volunteers that are going beyond the classroom to contribute to the program in strategic and systemic ways.

This year the Advisory Board focused on raising awareness & community building. They were instrumental in the launch of the Regional Chair system - designed to provide more localized support as the program grows nationally.



DON BALL

MARC PILON

BOB THOMAS

CATHERINE THOMAS

CHRISTOPHER DAVISON

JENNIFER LADANCHUK

IOAN BUZDUGAN

MURRAY MACDONALD

PETER LUO

MOHAMED HEFNY

THOMAS SEARS

DAVE STEEVES

CHANGIZ SADR

SANA ABOU-SHAABAN

STANISLAV SPEKTOR

BOB FOSTER

NOT PICTURED: BEHROOZ ABBASZADEH, JAKE LIPOHAR, RICH PINDER



@EIRPROGRAM

2021/22 Focus



HYBRID MATCHING MODEL

For the 2021/22 program year we transitioned to a hybrid model for our teacher-engineer matching process.

Our goal was to **eliminate our waitlist** and provide more support to educators than ever before. **We did it!**

In 2021/2022 67% of the EIR matches were made based on proximity (the EIR was close enough to visit the school in person). For the remaining 33% we were able to leverage our learnings from doing virtual visits in 2020/21 and offer teachers & students virtual support.

2021/22 REACH AND IMPACT

270

SCHOOLS

275

VOLUNTEERS

10440

STUDENTS

3150

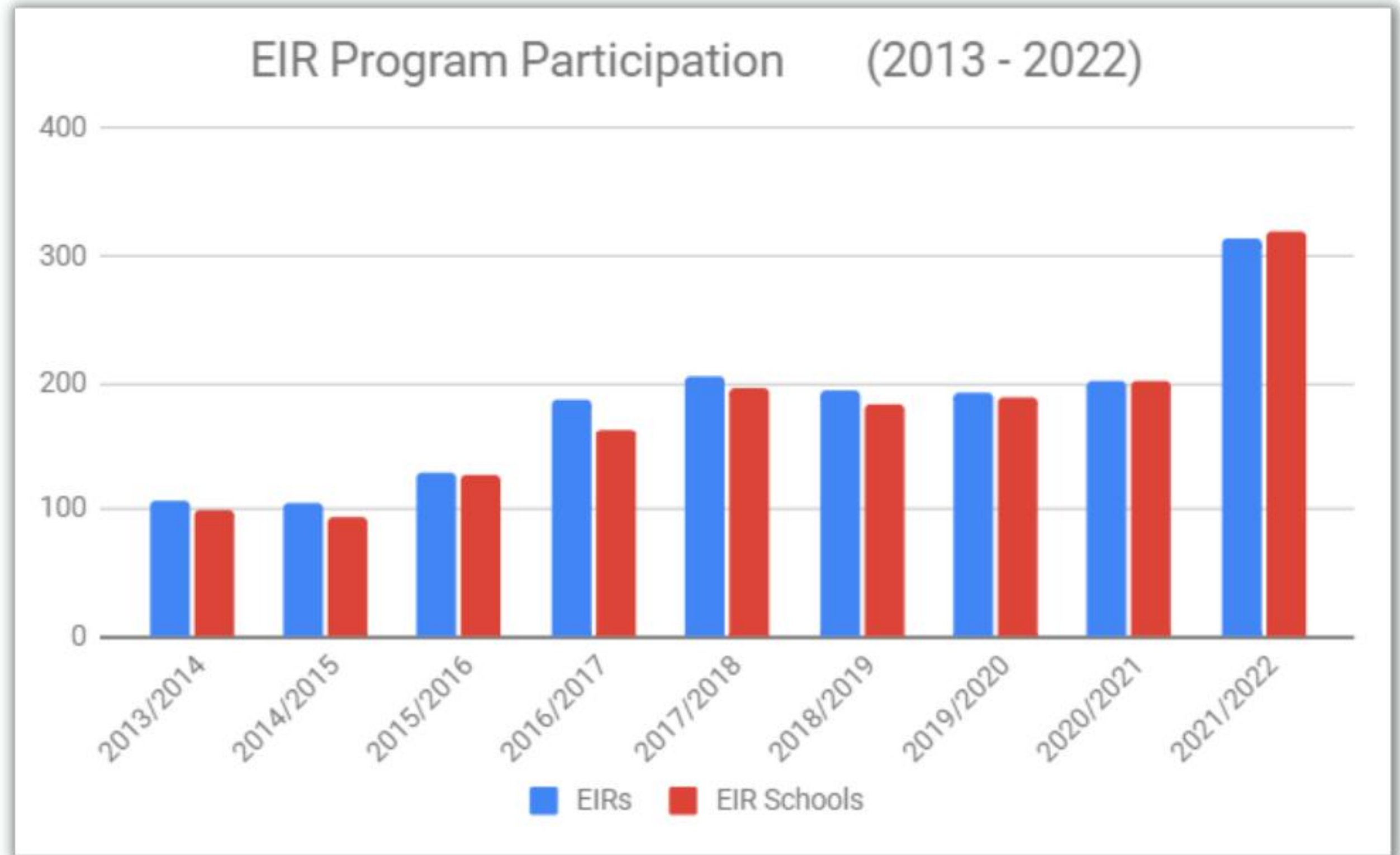
VISITS



EIR Program Growth

The EIR Program began as a pilot with 4 Toronto schools in 1998.

Since then, the program has grown steadily due to new strategic partnerships and increased demand from the education system.



National representation

In 2021/2022 engineers from coast to coast joined the EIR program - expanding beyond the borders of Ontario for the FIRST time!

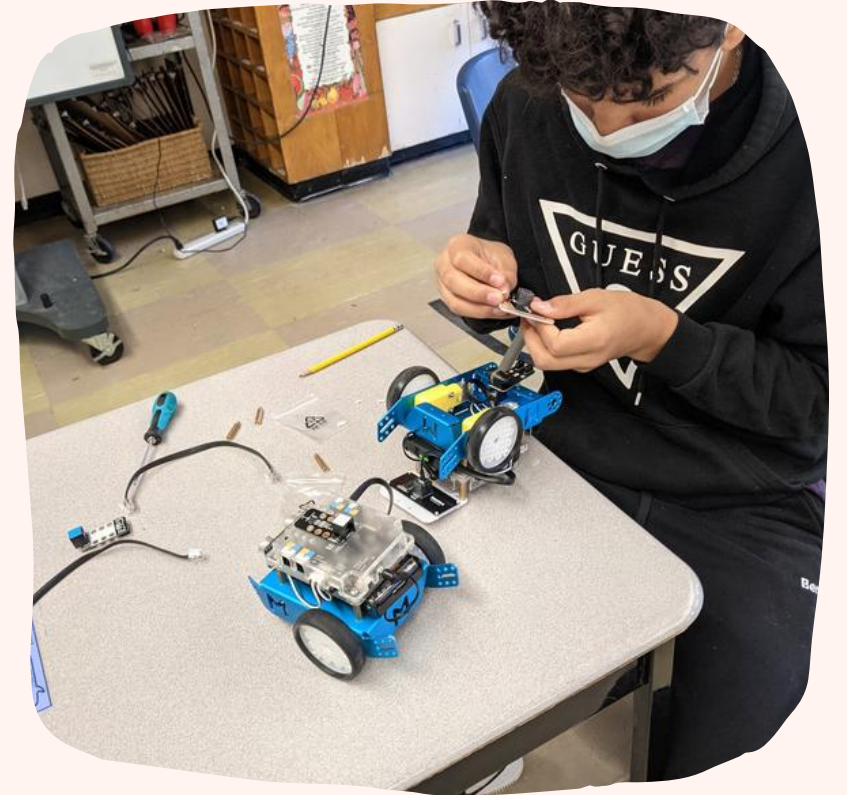
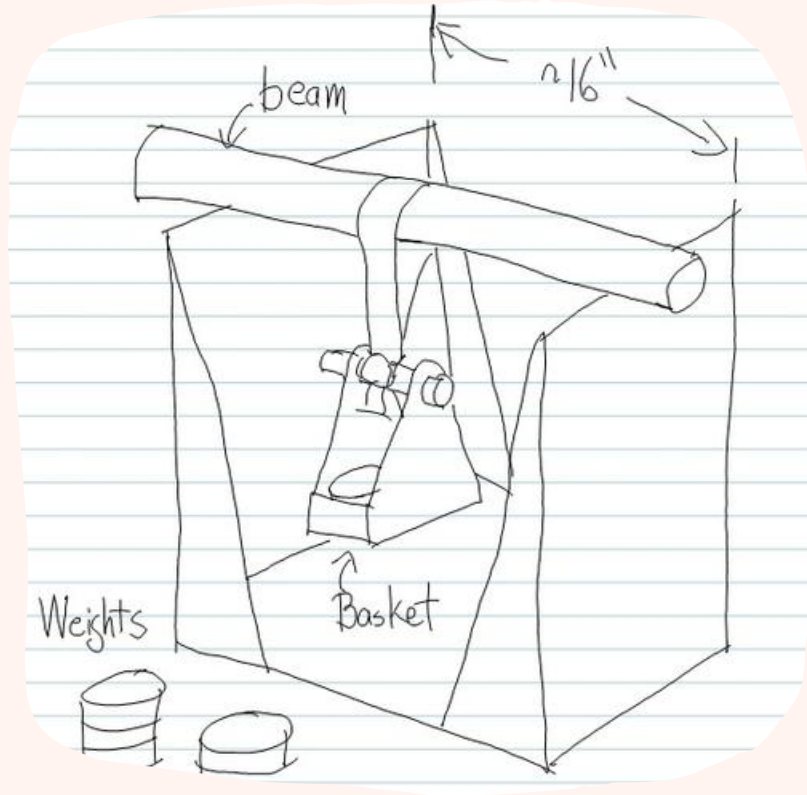
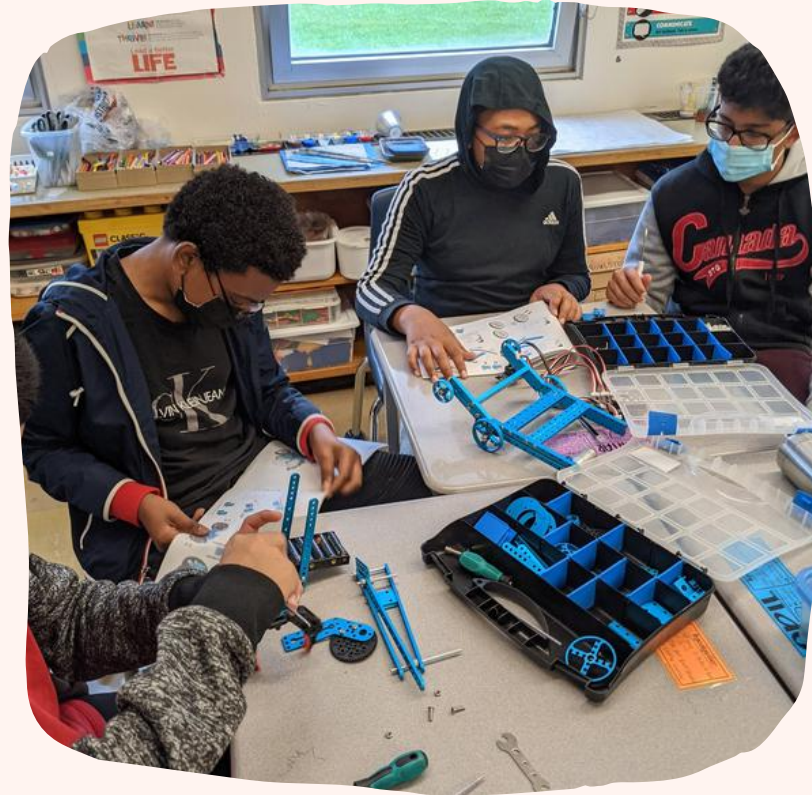
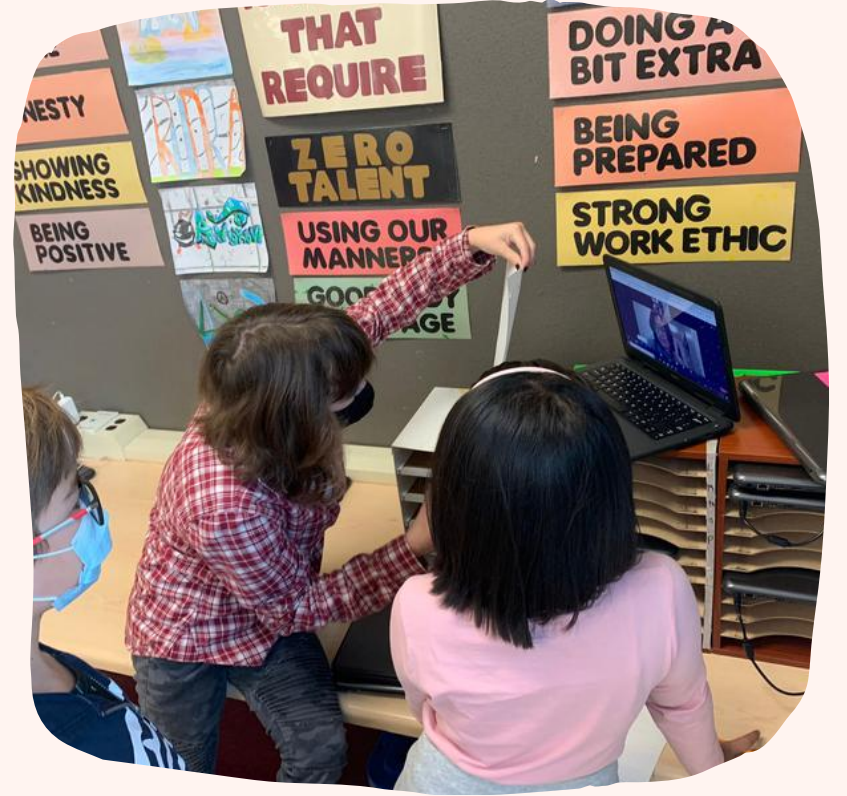
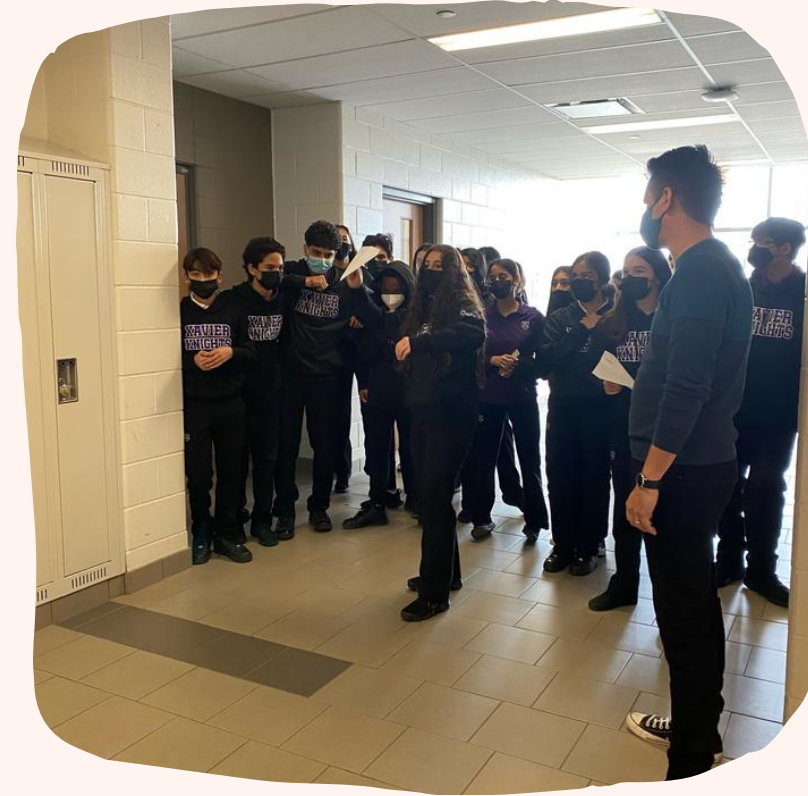
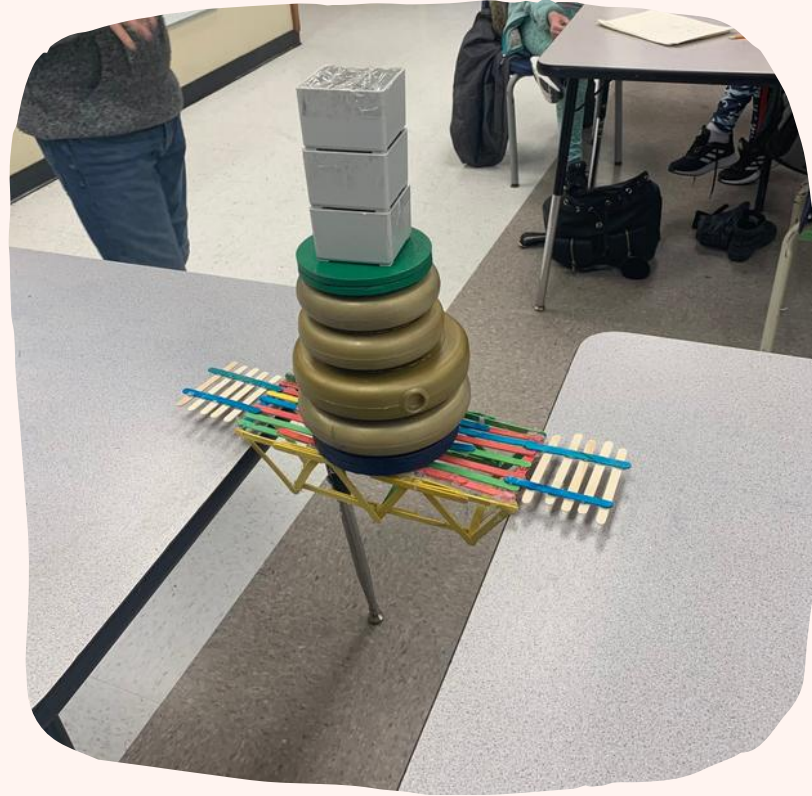




Students had the opportunity to problem solve and "think like an engineer". They were exposed to links between their curriculum and real world applications of their problem solving approaches.

JULIET KAVUMA, P. ENG. (EIR VOLUNTEER)

EIR Program in action...



Here's what teachers are saying

"Really enjoyed our session today! EIR Program - thank-you for teaching us about all of the critical parts of delivery through inquiry and group discussions."

HCDSB high school teacher

"Our 7/8 Ss are so excited to participate...met with our engineer to kick off the project to take our future cities to the moon!"

DPCDSB intermediate teacher

"Ss had a great week with our engineer! Lots of problem solving through building and programming. Next week we're exploring other coding languages."

TDSB junior teacher

"Kinder science inquiry: what happens when you combine milk, food colouring and soap? And why? Special thank you to our engineer - deep learning in action!"

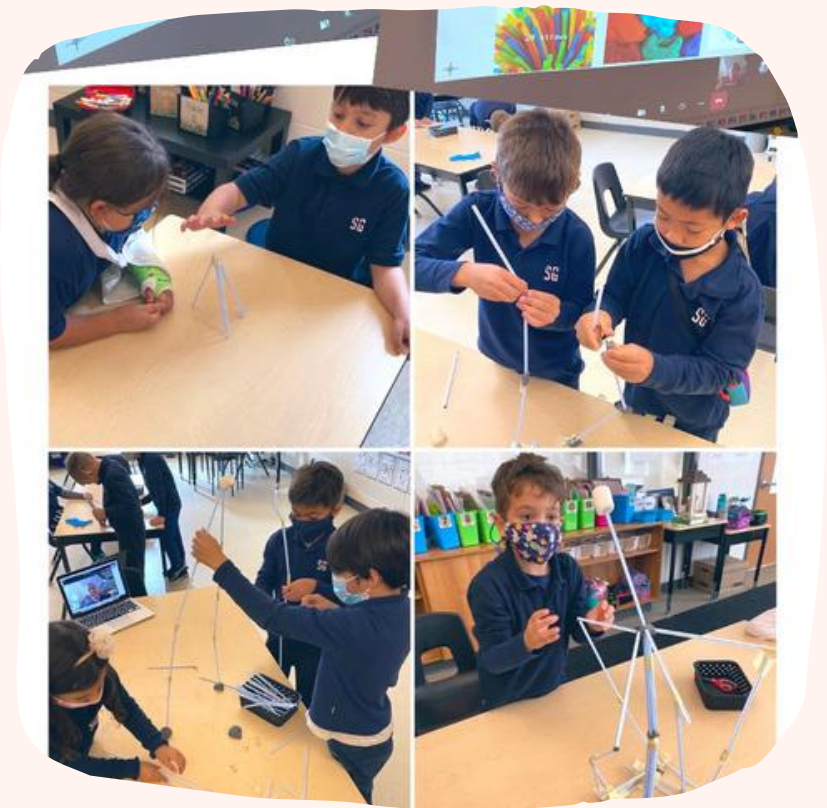
*OCSB primary teacher
(virtual school)*

EIR Program in action...



McINTOSH PERRY
McIntosh Perry
@McIntosh_Perry

Joshua Smith from our [#LandDevelopment](#) team paid his monthly visit to North Elmsley Public School, where he is the Engineer in Residence. A program through [@engoftom](#) which is a fun interactive experience for the kids, showcasing various types of engineering and what we do!



Here's what engineers are saying

It's been great! Class of Gr7 who are very eager and very interested....the virtual environment actually allowed for a lot of flexibility so I preferred it!

EIR volunteer - 1 year

Teachers & students are really excited to have a guest! So far, I've done two gr6 classes (circuits and battery building activities), and a gr3 structures activities.

EIR volunteer - 20+ years!

I helped to organize a mini STEM conference for Gr11-12 students to engage female students. Teacher has seen a drop off in female STEM participation.

EIR volunteer - 2 years

So. Much. Fun! I started a FIRST Lego League at the school and did some engineering challenges & contests. Can't wait to start again next year.

EIR volunteer - 12 years

EIR Program in action...



McGhee
@karenmcghee

Another fun day yesterday as [#EngineerInResidence](#) with my two Gr. 8 science classes [@stgabrielhcdsb](#) talking about fluids & pressure and experimenting with water. Always a joy to spend time with this polite, intelligent, engaged bunch of students! [@engoftom](#)

15 a.m. · 23 Feb. 22 · [Twitter Web App](#)



Ways to support

Volunteer

Become a sponsor

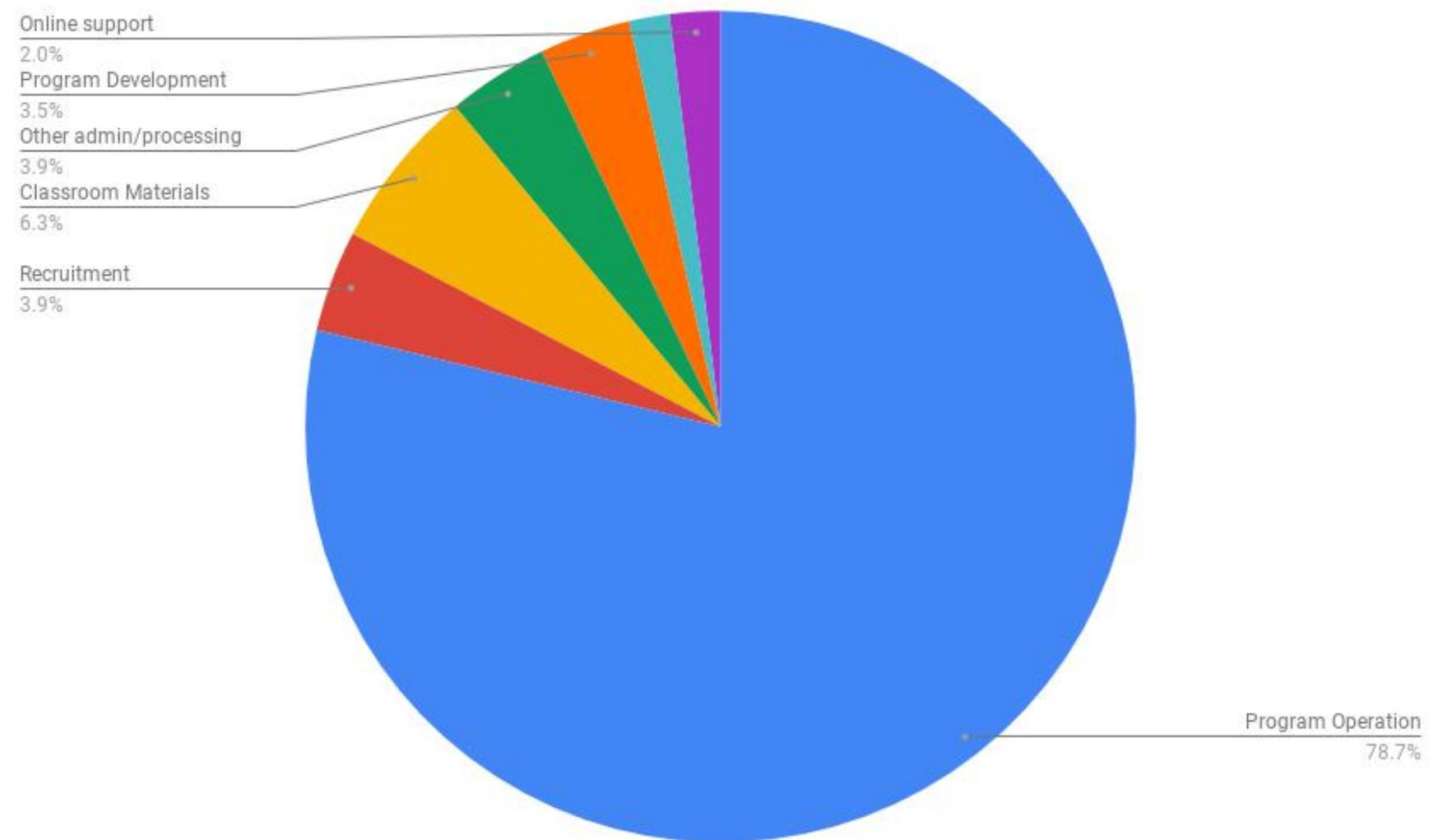
Donate

Sponsor an event



BUDGET

The EIR program is offered free of charge to educators and relies on the financial support of industry sponsors. The EIR program continues to be fiscally responsible directing less than 4% of expenditures towards administrative resources.



TIMELINE

The Engineer in Residence program is managed by Engineers of Tomorrow - a not-for-profit organization



Thank-you to our 21/22 program sponsors

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