

Engineer-in-Residence FAQs

GENERAL

How do we set up the program?

After a careful application process, the Engineer-in-Residence program matches a volunteer engineer with a school based on criteria provided on the application forms. After we find an appropriate match, we introduce the engineer to the primary contact teacher at that school. The two meet to plan visits and activities for the year. The EIR does not just go into the one classroom; the primary contact teacher should introduce the EIR to other teachers and staff, so that the whole school can benefit from the EIR presence. The EIR Program office offers resources and guidance to help with set-up and with planning throughout the year.

How are schools and engineers matched?

The EIR Program office matches engineers with schools in their area based on criteria provided on the application forms. The EIR meets with the primary contact teacher and together they decide if it's a good fit.

What does the program delivery typically look like?

There is no cookie-cutter approach at the EIR Program. The EIR and the primary contact teacher work out what makes sense based on the school's needs and the engineer's schedule and strengths. EIRs can run hands-on activities, do lab demos, give presentations on engineering and what it means to be an engineer, help with special projects, take students on field trips to their work place, give career advice, and help forge links between the school and industry. Our EIRs often start working in one classroom, and end up going to five or even more. Some EIRs help organize school-wide activities. Some will do a different activity every time they come in and some will work on year-long projects. The emphasis in all cases is on engaging students in the STEM subjects, raising awareness of the

engineering profession, curriculum-links, and providing a real-life connection to classroom theory.

What resources does the program offer for its volunteers?

The program provides a variety of resource materials, including a Program Guide with over 100 curriculum-linked activities & a website (www.eir.ca). We also have the Brainstorm Crew – an online group of engineers dedicated to helping develop ideas for the classroom. Finally, we offer an informal mentorship program that puts new EIRs in contact with veteran EIRs who can provide guidance and support. The EIR Program office offers continued guidance & one-to-one support throughout the year.

Is volunteer training provided?

There is a one-day orientation session for new EIRs and teachers, typically held in late September or early October.

How many EIR schools are there?

In 2011-2012, we were in 80 schools across Ontario, reaching close to 40,000 students

Where is the EIR Program available?

The EIR Program is currently offered Ontario-wide. Matches are based on the availability of an EIR in the area. Schools without a match will be placed on a waiting list.

Who benefits from the EIR Program?

Everyone! Children gain a new perspective on learning, teachers and schools gain access to additional resources, and engineers give something back to the community, add balance to their lives, and can enhance their communications and training skills.

FOR ENGINEERS

How can I participate?

Interested engineers can fill out an application online here. You will be contacted within a few weeks to set up a time for a brief telephone conversation to get to know you and answer any questions you might have about the program. If you are accepted into the program, we then look for an appropriate school match. We generally recruit volunteers in June and complete the matching process by mid to late September. However, you may apply anytime during the year – if we have a school on file without a match in your area, we will match you. If not, we will put you in our database for the following school year.

What qualifications does an EIR need?

Volunteers must be team players who are enthusiastic about what they do and have a desire and ability to share their knowledge and experience with young people.

As an EIR, will I be expected to teach a class?

No, not necessarily. EIRs can support the teaching of science and technology in a number of ways: presentations, lab demos, suggesting and developing activities, helping with special projects, career counseling and forging links between the school and industry.

I work full-time...can I still be an EIR?

There are many EIRs who work full-time. Some make use of their employer's existing flextime policies, while others have made special arrangements with their supervisors. Often the only time away from work will be the time spent at the school. Planning and preparation can be done outside office hours.

How much time is an EIR expected to devote to this program?

There is no set number of hours, but we ask our EIRs to commit for the entire academic year (September to June). We urge engineers and schools to develop a custom-tailored plan that works for both. A consistent, ongoing relationship is more important than the total number of hours. An EIR should therefore go into the school at least once a month.

Are there differences between volunteering at an elementary versus a high school?

Every school is slightly different, but on the whole, elementary schools tend to have fewer science specialists on staff than high schools. As a result, at the elementary level, the EIR's scientific knowledge may be most in demand. At a high school, the EIR may be asked to share his or her knowledge of real-world applications, contacts in industry, act as a mentor or role model, help with design projects and/or participate in career counseling.

Can I volunteer at my children's school/my old school/a particular school in my neighbourhood?

Yes. We have an information package you can pass onto the school. Please contact the EIR office for details.

Why do I need a police reference check?

School boards require the Police Vulnerable Persons Reference Check when an individual is working or volunteering with children.

FOR TEACHERS and SCHOOLS

How can my school participate?

Interested schools should contact the EIR Program office for an application, or click here to fill out an online application. Schools will need a teacher to volunteer as the “primary contact teacher” – the EIR’s main contact at the school. The school principal must also approve the EIR Program coming to the school and commit to providing support as required.

Will the EIR Program cost money for my school?

The EIR Program is free of charge to Ontario schools. If the primary contact teacher needs to attend the orientation session, we will reimburse for the cost of the substitute teacher.

What does being a primary contact teacher involve?

The primary contact teacher is the engineer’s principal contact person at the school. She or he helps integrate the EIR into the school community. They plan together to make the best use of the EIR’s time.

What happens if there is no engineer available for my school?

Schools that are not matched with an engineer will be placed on a first-come, first-served waiting list.

I know an engineer—can I ask them to come to my school?

You are welcome to tell any engineers you know about the program. In order to be matched with you as part of the EIR Program, they will have to fill out an application online. On your school application, you may request the name of a specific EIR under question 11, “Do you have any special requirement(s)/preference(s) for your EIR?”

Can I request a specific type of engineer (i.e. electrical) or a female engineer?

We know that schools sometimes have specific programs, focuses or class offerings that lend themselves to particular engineering types or backgrounds. We encourage schools in this situation to let us know by listing their preferences under question 11, “Do you have any special requirement(s)/preference(s) for your EIR?” The more information we have, the better we can do in matching you to the right engineer for your school! However, please keep in mind that we often have more schools than we have volunteer engineers, and there may not be someone matching your specific requests available in your area. Keep in mind that all of our engineers have something unique and interesting about them, and no matter who you are matched with, they will bring value to your classroom!