Annette Street Jr. & Sr. Public School / High Park Alternative School

Mad Science Extracurricular Programs will amaze your child and show them just how cool science, chess, and engineering can be!

<table>
<thead>
<tr>
<th>Program</th>
<th>Grades</th>
<th>Day &amp; Time</th>
<th>Dates</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brixology</td>
<td>Gr 1 - Gr 6</td>
<td>Wednesday 11:35 - 12:30</td>
<td>Jan 25 - Mar 22 (Skip: March 15) 8 weeks</td>
<td>$115.00 + HST</td>
</tr>
</tbody>
</table>

**Program Description**

**BRIXOLOGY:** In this new and exciting program, children will build a different LEGO® project each week. Each program has been developed by a LEGO® Certified Professional. Mechanical engineering will be explored as students build boats and vehicles. Aerospace engineering will come alive as they assemble a space station. A wide array of scientific principals will be explored through Lego builds: carnival rides, drawing machines, mechanical animals, truss bridges, and so much more. Your future engineer will foster their creativity through fun and hands-on design challenges. Let the tinkering begin!

Weekly Topics: Aerospace, Carnivals, Creatures, Vehicles, Towers, Boats, Bridges, and Machines.

Register Online

[www.toronto.madscience.org](http://www.toronto.madscience.org)

Registration is first-come, first-served. Register early to secure your spot!

All registrations must be completed through Mad Science. Registrations will not be accepted at the school.
Annette Street Jr. & Sr. Public School / High Park Alternative School

**Aerospace:** Launch your imagination to new heights as you explore aerospace engineering! Discover the secrets of working in space-efficiency and compact design. Create a trussed space station module. Then, connect it with others to create a massive modular spacecraft.

Take-home: Astro Lander

**Carnivals:** Feel the thrill as you build a spinning swing ride! Learn about the forces and mechanical engineering concepts behind some of your favorite amusement park rides. Then, improve and test the design to create an even wilder ride.

Take-home: Viking Ship

**Creatures:** Discover nature’s engineering secrets as we investigate biomimicry! We can learn a lot about efficient design from observing plants and animals. Build a walking insect machine then test different ways to help it climb up the steepest branch.

Take-home: Peacock Puzzle

**Vehicles:** Get in gear as an automotive engineer! Build a motorized vehicle and learn how to optimize it. Use wheels, axles and gears to reduce friction and improved its efficiency. Then, shift things into a higher gear to get a hands-on understanding of transmissions and gear ratios.

Take-home: Hovercraft XS

**Towers:** Reach for the sky! Find out how structural engineers use ideas from physics to solve problems. Work together to build a structurally sound tower with a working elevator. Then, test and improve your design for strength and stability.

Take-home: Sky Beams

**Boats:** Create a sea-worthy vessel as you set sail with nautical engineering! Build and test a boat powered by potential and kinetic energy. Then, try changing specific variables to improve speed, buoyancy, and stability.

Take-home: Wave Rider

**Bridges:** How can you build the strongest bridge? Work together with your fellow civil engineers to build and test different bridge designs. Then, use what you’ve learned to create the strongest bridge possible.

Take-home: Truss Bridge

**Machines:** Engineering is creative! Learn how gears, levers, and pulleys are useful tools for mechanical engineers. Then, combine them with art and design to create and test a motorized drawing machine.

Take-home: Sky Roller

REGISTER ONLINE TODAY!
www.toronto.madscience.org

For assistance please contact:
toronto@madscience.on.ca
416-630-5282