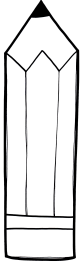


Brigadoon Family **SCIENCE** Night 2016

Brigadoon School Council presents another year of
free, fun family science
...but get ready, this year is entirely different!

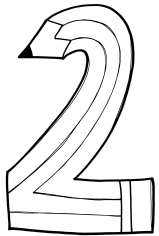


Mark your calendars
Family Science Night will be on
Thursday April 21
from 6 – 8pm
Doors open at 6pm

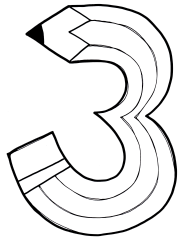


Tinker Truck our partner is a regular at the KPL, Maker Expo, Children's Museum birthday parties and other great events and will bring SEVEN of their most popular activities to Brigadoon!

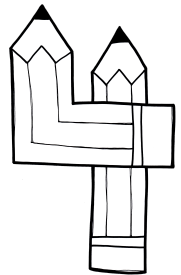
- Foam Air Rockets
 - Electrified Art
 - Toy Hacking Lab
 - 3D Modelling station
 - 3D Printer demonstration
 - River Boat Challenge
 - Collaborative Mural Project
- Learn more about these activities at our school website in the School Council section (<http://bgd.wrdsb.ca>)



Get ready to help out!
We need almost 30 volunteers or we may need to cancel activities.
Sign up for your shift.
<http://bit.ly/ScienceSignUp>

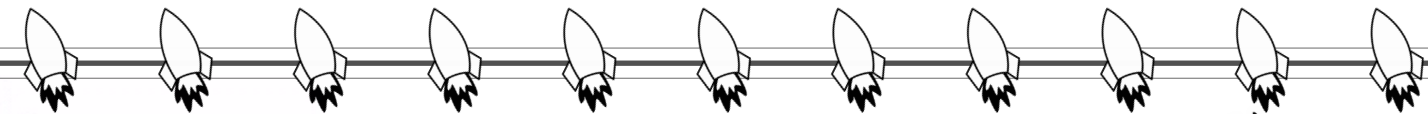


Help us plan. RSVP!
We want to be ready and minimize wait times - so RSVP at
<http://bit.ly/ScienceNightRSVP>



Come ready for fun!
Bring along:

- Old, broken or outgrown toys for use by others in the Toy Hacking Lab
- A USB to store your 3D creation (and bring extras to share if you can)



Remember! This is a family event - parents must remain with their children.

Thank You

This event is funded through a Parent's Reaching Out (PRO) grant from the Ontario Ministry of Education

Brigadoon Family **SCIENCE** Night 2016

Thursday April 21, 6-8pm

Foam Air Rockets Blast off with our most popular program ever: Rockets! Using scissors, duct tape, recycled cardboard and foam pipe wrap we build and launch rockets with a bike pump and a quick-release pressure chamber. Our rockets can launch over 100 feet in the air or be launched on a 45 degree angle across a playing field. Kids experiment with different pressures in the launch chamber, different rocket configurations and brainstorm why different designs behave in different ways. This program also scales to hundreds of participants as needed so is perfect for community events, school fairs and family reunions. Children take home the rockets they crate and launcher instructions are available on the Internet.



Electrified Art Children work with special copper tape, paper, LEDs and a 3V coin type battery to create their own piece of art. Following the instructions printed directly onto the double-sided paper children learn about how electricity flows from one side of a battery through some electrical component doing work (lighting an LED) through a pressure switch and back to the battery. Children take home the project they make and can re-use the basic science to add LED lights to other projects at home (doll houses, RC cars) without the need for a soldering iron, solder or heat.

Toy Hacking Lab "Reduce, Re-use, Recycle, REPURPOSE, REPAIR."
Participants start with a large assortment of well-loved used toys, some broken, some parts, some working but out-grown. Then we break them. Children explore what is on the inside of toys, how they are put together and then use this knowledge and their own creativity to invent new things with drills, screws & bolts, hot glue, sewing thread and other craft materials. The creations are always fantastical and usually occupy a place of pride on the child's bedroom shelf for a long time following the event.

PLEASE BRING ALONG: Old, broken or outgrown toys for use by others in the Toy Hacking Lab

Volunteers needed!
We need almost 30 volunteers or we may need to cancel activities.

Sign up for your shift.
<http://bit.ly/ScienceSignUp>

Help us plan for the crowds!

We want to be ready and minimize wait times - so
RSVP at
<http://bit.ly/ScienceNightRSVP>

Brigadoon Family **SCIENCE** Night 2016

Thursday April 21, 6-8pm

Collaborative Mural Project A giant, sticker-by-numbers mural can decorate the school after the event. Designed by a local artist then brought to life by participants in real-time at the school. Guests take 1x1 square stickers, each colour-coded to a number and find a spot on the mural that needs that colour. The mural will be 20,000 pixels minimum (100x200) and may take longer than 2 hours to complete. Appropriate materials will be left with the school to complete the project with the students.

This project is usually reserved for day-long community events but is easily completed by puzzle loving children without special mentorship. Our event-night mentors will facilitate the crowd and ensure that all participants get a chance to help create this masterpiece.



3D Modeling Lab Do you want to build a snowman? In this project participants will use the school's chromebooks to learn about 3D Computer Aided Modelling (CAM) on a website called TinkerCAD.com. The preliminary challenge is to build a stacked snowman out of three spheres. With this simple experiment children use basic mathematical shapes to learn how to manipulate a 3D world on a 2D computer screen. After this task is completed children are able to design anything they want. Finished computer files can be loaded onto a USB key and taken home to continue or to the KPL Main branch to be 3D Printed.

PLEASE BRING ALONG: a USB / thumb drive to bring home your creation. Consider bringing along a few extras too for others!

3D Printer Demonstration TinkerTruck will bring and set up a temporary 3D printer near the Modelling Lab so that participants, guests, teachers and parents can see how this remarkable robot fabricates real objects out of melted plastic. The most recent two issues of Make Magazine covering this technology will also be on display (but not available to take home).

River Boat Challenge TinkerTruck will bring their giant 10'x4' portable water table complete with raging river. Participants are given a rubber animal toy and asked to help get it down the river safely to the animal's food. Using popsicle sticks, rubber bands, corks and other similar materials children build boats that they think will meet this challenge. After testing them and learning some lessons they can redesign their boat over and over until they can consistently solve the challenge. **NOTE: CHILDREN DO NOT TAKE THESE BOATS HOME**

See you at school!
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