

2015 WISE KID-NETIC ENERGY FUNDERS



2015 ACTUA NATIONAL FUNDERS

WISE Kid-Netic Energy is a proud member of Actua. Please visit Actua online at www.actua.ca



2015 ACTUA MANITOBA FUNDERS



DID YOU KNOW?

WISE Kid-Netic Energy also offers:

WISE KID-NETIC ENERGY GIRLS CLUB: Calling all girls! This 18-week, girls-only science and engineering club, for grades 3-8 girls is the club for you. Our club features exciting projects, tours, mentor events, and community outreach projects. The program is held on Saturdays 12:30-3:30 in the Faculty of Engineering at the University of Manitoba throughout the academic year. On-line registration is available at www.wisekidneticenergy.ca/girls-club/.

WISE KID-NETIC ENERGY INNER CITY GIRLS CLUB: We have partnered with the Boys and Girls Club of Winnipeg to offer a safe space where girls in grades 3-8 regularly meet for extra-curricular science and engineering activities. This program offers mentor events, field trips, a meal, and projects for the girls to get involved in. Contact our office for more information.

WISE KID-NETIC ENERGY SUMMER CAMP: During the spring and summer we offer science and engineering week-long day camps to students in grades 4-6 throughout the province of Manitoba. In Winnipeg, we partner with several organizations to offer programming in various locations. Outside of Winnipeg we work with local schools boards and community centres. We regularly go to Churchill, Flin Flon, Killarney, Morden, Norway House, Thompson, Sopotaweyak, Skownan, Steinbach, Thompson and Wanipigow.

FOR MORE INFORMATION



Like us on Facebook at facebook.com/wisekidnetic

Follow us on Twitter
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wisekidneticenergy.ca
(on-line workshop request available)

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Winnipeg, Manitoba, Canada, R3T 5V6



2015-2016 Workshop Catalogue

Now accepting bookings for **exciting STEM workshops** →

WISE Kid-Netic Energy is a community outreach program offered by the Faculty of Engineering. One service WISE Kid-Netic Energy provides is delivering workshops to Manitoba classrooms. These workshops are hands-on, curriculum-based and delivered by University of Manitoba undergraduate students in Engineering and Science-related fields. Workshops are offered for a nominal fee of \$50, with invoices sent following the workshops. Cheques should be made payable to University of Manitoba. There are NO additional travel fees for schools outside of Winnipeg.

Each workshop is designed for one regular-sized class or up to a max of 30 students unless otherwise noted.
Please NOTE: A minimum of **TWO** workshops must be booked per visit. Workshops booked on a first-come first-serve basis dependent upon instructor availability.

Workshop	Curriculum Relativity		Description	Notes
Roadshow 1 Hr	Gr K-8	\$50	A science variety show combining demos and hands-on activities covering many different areas of science. This workshop can be done for larger groups.	Requires a white board or chalk board and table.
Living Tree ½ Hr	Gr K K-1-01 → K-1-08 K-3-03	\$30	Learn about trees, their inhabitants and the changes of the seasons. Tree cross sections and various items acquired from trees are discussed and presented.	
Sharpen your Senses 1 Hr	Gr 1 1-2-01 → 1-2-03 1-2-05, 1-2-07 1-2-12 → 1-2-14	\$50	Students play games in which they must use their senses to identify mystery stimuli.	Requires access to a plug/outlet.
Baby Animals 1 Hr	Gr 1-2 1-1-01, 1-1-03 2-1-01, 2-1-08	\$50	Through an interactive game, students learn the names of the offspring of various animal groupings and males/females.	
Jumpin' Germs! 1 Hr	Gr 1-2 1-0-1, 1-0-3 → 1-0-4 1-0-7→1-0-9 2-0-1, 2-0-4 2-0-7, 2-0-9	\$50	In Manitoba, flu season is always a concern with germs jumping from one person to the next. Students will learn proper hand washing technique with a glowing germ cream. They will also design their own germ based on basic germ properties.	Requires a white board or chalk board and table. Requires access to a plug/outlet. Make & Take Project* Design-a-Virus
Food Facts 1 Hr	Gr 1-2 1-1-01, 1-1-07, 1-1-10 2-1-01, 2-1-04, 2-1-07	\$50	Students will get to extract iron from cereal, simulate the body's digestion process and learn about healthy foods in a game of Bingo.	Requires a white board or chalk board and table and access to a plug/outlet.
Manitoba Safari 1 Hr	Gr 3-6 3-1-02, 3-1-13, 3-1-16 4-1-07, 4-1-09, 4-1-17 6-1-01, 6-1-04, 6-1-08	\$50	Students will expand on their knowledge of Manitoba's flora and fauna. Students will dissect owl pellets, examine animal footprints and discover the medicinal properties of plants native to Manitoba.	Requires a white board or chalk board and table.
Structures 1 Hr	Gr 3-7 Gr 3-7 3-2-01 → 3-2-13 3-3-01 → 3-3-03 4-0-3a → 4-0-3f 4-0-4a → 4-0-4h 5-3-01 → 5-3-02 6-0-1c, 6-0-4b → 6-0-4d 6-0-5a, 6-0-7f 7-3-01 → 7-3-09 7-3-11 → 7-3-12	\$50	After learning about various forces, stability and strength, students will become civil engineers designing and building their very own straw bridges, towers, or Indigenous-inspired structures.	<input type="checkbox"/> Bridges <input type="checkbox"/> Towers <input type="checkbox"/> Indigenous Structures
The Science of Music 1 Hr	Gr 4 4-3-01 → 4-3-05 4-3-07 → 4-3-09 4-3-13, 4-3-17	\$50	Discover how sound travels and how we hear it through activities such as building a gramophone using LittleBits and simulating sound with dominoes.	New Utilizes LittleBits
Mythbusters 1 Hr	Gr 4-6 4-0-1b, 4-0-8a → 4-0-8b 5-0-1a, 5-0-3b 5-0-7b → 5-0-7c, 5-0-8a 5-0-8e → 5-0-8f 5-0-9a, 6-0-1a, 6-0-3b 6-0-4a, 6-0-5a 6-0-7a v 6-0-7b 6-0-8e, 6-0-9a	\$50	Students learn about the scientific method and use their knowledge to perform experiments to confirm or bust potential myths.	New activity added
Rocks and Minerals 1 Hr	Gr 4-7 4-4-01 → 4-4-08 5-0-4a, 6-0-4a 7-4-01 → 7-4-03	\$50	Students work in groups to identify rocks and minerals using several criteria including hardness and streak.	
Simple Machines 1 Hr	Gr 4-8 5-3-01 → 5-3-04, 5-3-06, 5-3-10 → 5-3-13 8-3-11 → 8-3-12, 8-3-14	\$50	Create a giant lever, explore the link between a helicopter and a screw, and much more! Grade 4,5 and 6 students will build a catapult, and grade 7 and 8 students will build a hydraulic machine.	

* **Make & Take Project:** students have the opportunity to create a project, and take it home to share with friends and family.

Please NOTE: GST will be charged on all Gr. 9-12 workshops

Workshop	Curriculum Relativity		Description	Notes
Science on the Run 1 Hr	Gr 4-10	\$50	Roadshow's cool uncle! This workshop has the Wow Factor of roadshow but brings students' participation to a new level. Students will apply their knowledge of polymers to chemically create their own bouncy balls and mix creepy cool alien eggs. Finally, students will examine chemical properties such as heat, color change and surface tension through exciting experimentation.	Make & Take Project* Bouncy balls and/or alien eggs.
Optics 1 Hr	Gr 4-11 4-2-01 → 4-2-04 4-2-06 → 4-2-09, 4-2-13 4-2-15 → 4-2-16 8-2-01 → 8-2-03 8-2-07 → 8-2-12 S3P-2-06 → S3P-2-07 S3P-2-10 → S3P-2-11 S3P-2-15, S3P-2-17	\$50	Students will discover the properties of light through experimentation and learn about cool technology in this field. Content will vary based on grade level.	Requires access to a plug/outlet and a projector screen.
Under the Sea 1 Hr	Gr 4-12 4-1-01 → 4-1-04 4-1-09, 4-1-14 6-1-01, 6-1-09 → 6-1-10 7-1-01 → 7-1-02 7-1-05, 7-1-07 B12-0-U2	\$50	Students will dive into the most diverse biome on Earth: the ocean. They will learn about life in an aquatic environment by dissecting a sea star and examining its anatomy in increasing detail for higher grade levels.	Requires a table. Includes a dissection.
Open Heart Surgery 1 Hr	Gr 5-11 5-1-10 8-1-10 → 8-1-12 B11-3-06, B11-3-12 B11-3-14 B11-3-16 → B11-3-17	\$50	Students will explore the anatomy of a pig's heart by dissecting them. Increasing focus on circulatory and respiratory systems with higher grade level.	Requires a table. Includes a dissection.
Electricity 1 Hr	Gr 6 & 9 6-3-01, 6-3-05, 6-3-08 → 6-3-10, 6-3-12, 6-3-13, S1-3-08 → S1-3-10, S1-3-13, S1-3-15, S1-3-20	\$50	Students will build and compare series, and parallel circuits using Snap Circuits – an electronic, educational toy. In addition, grade six students will build a simple motor. Grade nine students will observe a Tesla Coil demonstration, and play a game to test their knowledge.	Requires access to a plug/outlet.
Forces of Flight 1 Hr	Gr 6 6-2-1 → 6-2-11 6-2-15	\$50	Learn the four important forces of flight through interactive demonstrations and stations! Students will create their own paper rockets to apply their newly acquired knowledge.	Make & Take Project* Paper Rockets.
Water Quality 1 Hr	Gr 8 8-4-14 → 8-4-15 8-4-17 → 8-4-19	\$50	Students will learn the hard facts about water and how it is treated. They will examine different treatment processes in Manitoba and build their own water filters.	Requires a white board or chalk board and table.
DNA Detection 1 Hr	Gr 8-12 8-1-01 → 8-1-05 S1-1-13, S1-1-17 B12-2-01 → B12-2-03 B12-2-09	\$50	Students will learn about what determines the identity of each cell: DNA. They will even have the opportunity to extract real DNA and take it home. Increasing focus on genetics and biotechnology with older students.	Requires a white board or chalk board and table. Make & Take Project* DNA sample.
Mathively Fun 1 Hr	Gr 9 9PR1 → 9PR7 9SS2	\$50	Students will conduct multiple engaging experiments using trigonometry, calculating volume, surface area, slope and more.	Designed to inform students about the advantages of taking pre-calculus throughout high school.
University Talk		FREE!	Presentation on what to expect as a science or engineering student at the U of M.	Rule of two workshop bookings does not apply.
University Talk: ENGAP 40 Min		FREE!	Students learn of the many useful and effective support systems provided by the Engineering Access Program for First Nations and Metis people.	Rule of two workshop bookings does not apply. Workshop is oriented to First Nations and/or Metis students.

