



Annual Report

2014–2015



UNIVERSITY
OF MANITOBA



OUR MANDATE

WISE Kid-Netic Energy works to ignite an interest and life-long passion of science and engineering in all Manitoba youth.



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INTRODUCTION

In 1990 WISE (Women in Science and Engineering) Kid-Netic Energy, the University of Manitoba's largest outreach initiative, was formed. At WISE Kid-Netic Energy we envision the youth of Manitoba inspired and empowered by the possibilities of science, engineering and technology. We envision a Manitoba where all youth, regardless of background, gender or socio-economic status are enriched in their science, math and technology education. To make our

vision a reality, our organization offers science and engineering workshops, clubs, and camps to youth from Kindergarten to Grade 12 throughout the entire province. Annually we see between 25 000 and 35 000 kids. These young people of today will become Manitoba's vibrant and diverse workforce of leaders tomorrow; these youth will be empowered by their knowledge and appreciation for science, engineering and technology.





Students were all engaged and all had smiles on their faces. The presenter did a wonderful job. This presentation is something students will remember. Awesome job.

Chris Todoruk & Wendy Oversby,
Grade 5-8, Ochre River School, Ochre River, MB

OUR INSTRUCTORS

Our instructors are our champions. All of our instructors are University of Manitoba students pursuing engineering or science-related degrees. From that pool we preferentially hire women, Indigenous peoples, and other minorities. We pride ourselves on hiring undergraduate students that reflect the diversity of students throughout Manitoba. Each is trained to deliver all of our Manitoba science curriculum-based workshops. They also receive classroom management and Indigenous cultural training. We provide meaningful employment for our instructors to develop strong leadership and presentation skills.

During the fall and winter our instructors work part-time and deliver

outreach close to Winnipeg to accommodate their classes and labs. In spring and summer they work full-time and travel extensively to all corners of our province including northern Manitoba (Churchill, Dauphin, Flin Flon, etc.), southern Manitoba (Steinbach, Killarney, Morden, etc.) and First Nations communities (Wanipigow, Skownan First Nation, Norway House Cree Nation, etc.). We teach our instructors to consciously consider the grade level they are presenting to so students are able to easily understand, and relate. We also believe having underrepresented peoples as ambassadors of science and engineering in classrooms dispels barriers associated with underrepresented groups excelling in technical fields.





OUR WORKSHOPS

Showcasing a variety of science and engineering topics, our workshops are highly interactive, and bring technology and hands-on activities to classrooms.

wisekidneticenergy.ca/workshops

OUR WORKSHOPS

We offer over 20 different hands-on workshops and we had another tremendous year in workshop delivery. Between April 1, 2014 and March 31, 2015 we saw an outstanding 28 013 students. Our hands-on, Manitoba science curriculum-based workshops for Kindergarten to Grade 12 are a hit in classrooms all over the province of Manitoba. Teachers have enthusiastically invited us into their classrooms and we could not be more excited to be working with passionate educators. We offer a wide variety of choices for budding scientists and engineers. We facilitate dissections, design-build-test challenges and plenty of fun educational games. We bring all the supplies and clean up afterwards. We charge minimally and

offer the same rates for schools within and outside the city of Winnipeg. We strive to spark curiosity and build momentum towards positive experiential learning. Often the Manitoba Department of Education offers grants to teachers that can be used to further subsidize the cost of workshops. Please go to our website (www.wisekidneticenergy.ca) to view our current workshop catalogue in French and English.

FUN FACTS ABOUT WORKSHOPS

- Total audience of 28 013 from Kindergarten to Grade 12
- 1 263 workshops delivered



Great presentation! Students were very engaged and really enjoyed the class. I would highly recommend WISE presentations to other educators!

Special Ed Teacher, Sisler High School, Winnipeg, MB



WORKSHOP DELIVERY BROKEN DOWN BY SCHOOL DIVISION

DIVISION	KIDS PER DIVISION	DIVISION	KIDS PER DIVISION
Brandon	150	Prairie Rose	159
Flin Flon	615	Prairie Spirit	200
Frontier	2 992	Red River Valley	137
Garden Valley	149	River East Transcona	265
Hanover	4 588	Seine River	644
Interlake	219	Seven Oaks	522
Kelsey	419	Southwest Horizon	125
Lord Selkirk	300	St. James Assiniboia	1 634
Louis Riel	1 445	Turtle Mountain	121
Mountain View	758	Western	90
Mystery Lake	1 351	Winnipeg	4 322
Pembina Trails	1 760	Other/Private	3 187
Portage la Prairie	40		
		TOTAL STUDENTS	28 013

Good presentation. The students really enjoyed the hands on activity, they thought they were playing a game but they were really learning.

Grade 1 Teacher, Peguis Central School, Peguis First Nation, MB



OUR CAMPS

Camp programming is fun, interactive, and hands-on. It includes indoor and outdoor activities, and incorporates everything from physical activity to creative design and build challenges.

wisekidneticenergy.ca/camps

OUR CAMPS

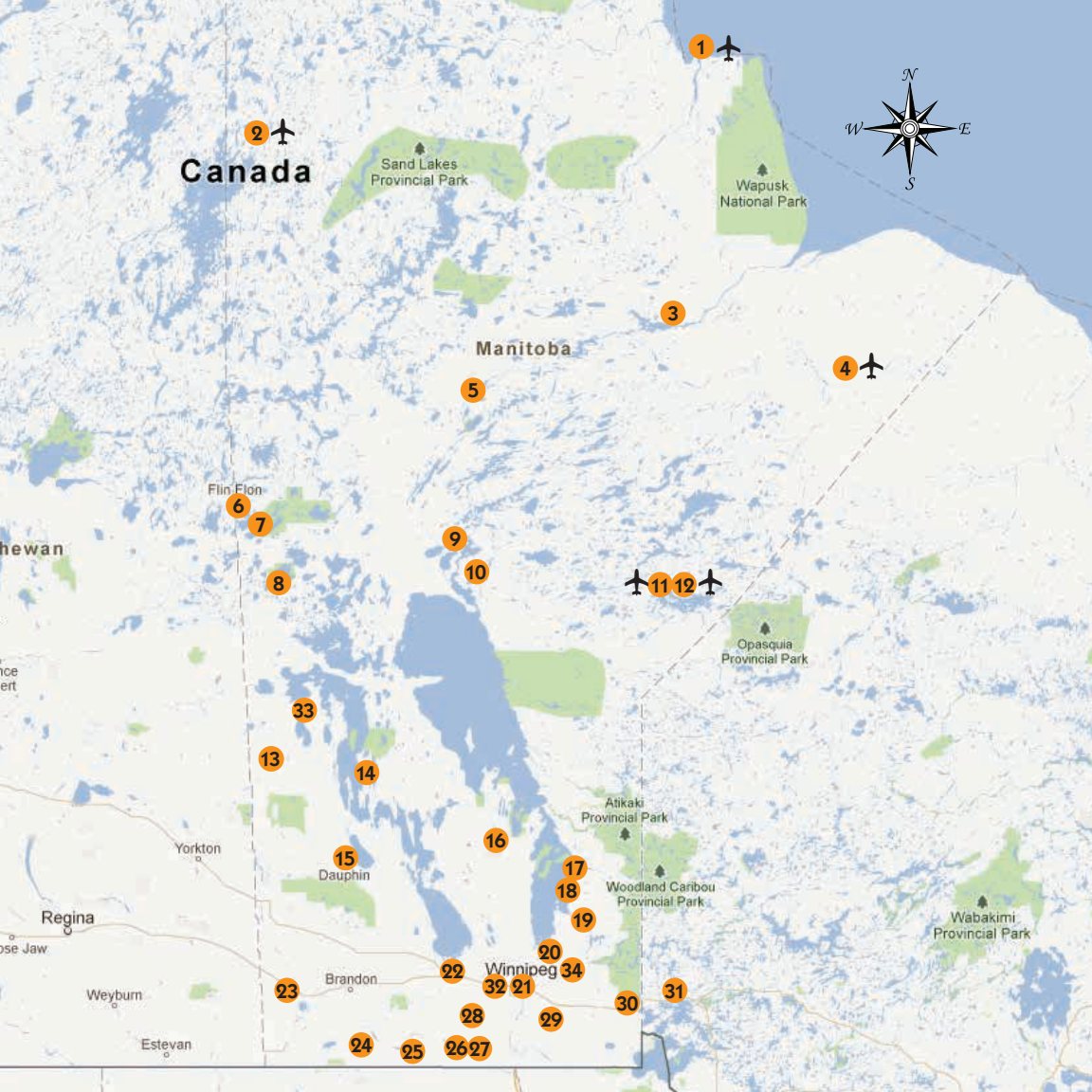
We run week-long science and engineering camps in northern Manitoba (Churchill, Flin Flon, The Pas, Dauphin), southern Manitoba (Steinbach, Morden, Killarney), First Nations communities (Wanipigow, Skownan, Norway House, Sapotaweyak), and within Winnipeg through the Boys and Girls Club of Winnipeg, Immigrant and Refugee Community Organization of Manitoba, and Spence Neighbourhood Association. Each day, boys and girls within Grades

4, 5 and 6 experience a new career path. In summer 2014 participants were exposed to different themes in Zoology & Ecology, Food Science & Nutrition, Extreme Engineering, Sports Science, and Robotics. Campers participated in activities such as creating green houses, constructing marble mazes and robotic hands, baking chemical apple pie, and dissecting worms. Our lesson plans maximize hands-on learning.

The WISE Kid-Netic Energy camp was valuable to my child, and we look forward to attending next year's camp.

Parent, Thompson, MB





CAMP LOCATIONS SINCE 2001

- | | |
|--|-------------------------------------|
| 1. CHURCHILL | 17. WANIPIGOW |
| 2. BROCHET | 18. LITTLE BLACK RIVER FIRST NATION |
| 3. GILLAM | 19. PINAWA |
| 4. SHAMATTAWA | 20. TYNDALL |
| 5. THOMPSON | 21. WINNIPEG |
| 6. FLIN FLON | 22. PORTAGE LA PRAIRIE |
| 7. FRONTIER SCHOOL DIVISION'S CAREER X | 23. VIRDEN |
| 8. THE PAS | 24. KILLARNEY |
| 9. CROSS LAKE FIRST NATION | 25. CLEARWATER |
| 10. NORWAY HOUSE CREE NATION | 26. MORDEN |
| 11. WASAGAMACK | 27. WINKLER |
| 12. GARDEN HILL FIRST NATION | 28. CARMAN |
| 13. SWAN RIVER | 29. STEINBACH |
| 14. SKOWNAN FIRST NATION | 30. FALCON LAKE |
| 15. DAUPHIN | 31. KENORA |
| 16. PEGUIS FIRST NATION | 32. ST. FRANCOIS-XAVIER |
| | 33. SAPOTAWEYAK CREE NATION |
| | 34. BEAUSEJOUR |

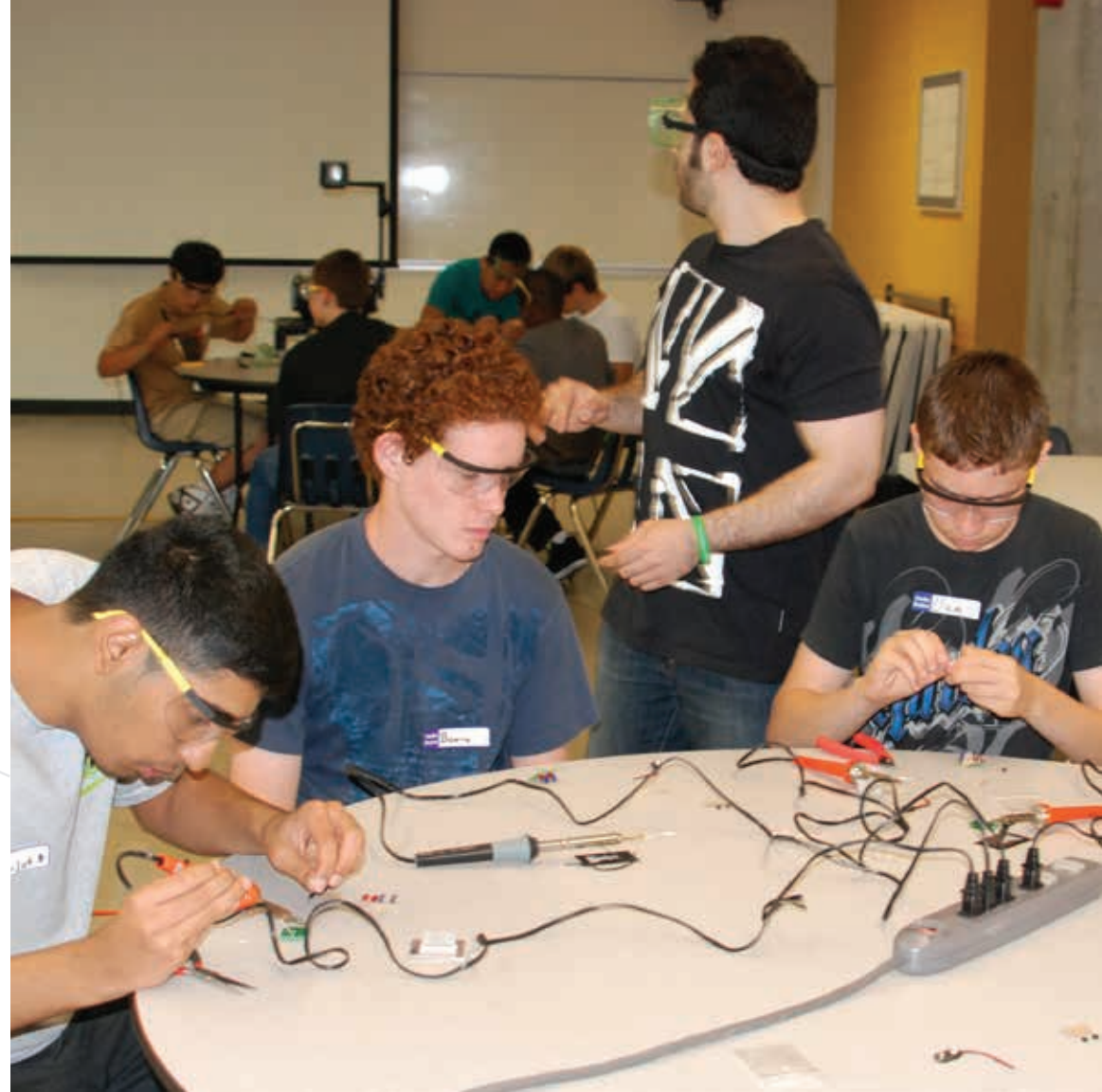
Highlighted locations received week-long camps in Summer 2014

 fly-in location



SPACE ADVENTURE CAMP

WISE Kid-Netic Energy continues to provide the promotional and administrative support for the Manitoba Space Adventure Camp, a Manitoba Aerospace initiative. The enrichment camp designed for students in Grades 9-11 explores various aerospace, flight, physics and space topics. Students participate in hands-on activities such as rocket builds, extensive lab tours in the Faculty of Engineering and drive a race car—a simulator of course!





OUR CLUBS

Each week exciting hands-on activities, tours, field trips and mentor events are hosted. Club members have the opportunity to interact with professionals, see the “heart” of the University of Manitoba, and explore science and engineering on a more in-depth level.

wisekidneticenergy.ca/clubs

OUR CLUBS

Offering quality extra-curricular science and engineering programs is crucial to the development of Manitoba's future scientists and engineers, and we offer two girls clubs that run throughout the school year to support local interest. Every week the girls meet with their instructors, and develop their skills and interests through participation in competitions, field trips and mentorships.



My favourite part of Girls Club was when we went on field trips, because we were learning about different fields of science. I really enjoyed it. My least favourite part... I really enjoyed everything!

Girls Club Member





OUR OUTREACH

WISE Kid-Netic Energy is dedicated to inspiring all youth to Science and Engineering. We have special initiatives to provide outreach to underrepresented groups.

[wisekidneticenergy.ca/outreach](https://www.wisekidneticenergy.ca/outreach)

ADOPT-A-CLASS

By far the most meaningful new project we started in September 2012 was our Adopt-a-Class program. We recognized that we could do more to make our workshops accessible in areas of Winnipeg with socio-economic challenges. We asked the Boys and Girls Club of Winnipeg, and ENGAP (Engineering Access Program for Indigenous students) to nominate schools which would receive our workshops at no cost. This year's schools

were Brooklands, Children of the Earth, David Livingstone, Dufferin, Elmwood, Grant Park, Kelvin, Kildonan East, King Edward, Maples, Niji Mahkwa, Norquay, Pinkham, Shaughnessy Park, Sisler, South East, St. John's, Westgrove, and William Whyte. Between September 2014 and March 2015 we had already seen 2 662 students. We are so grateful to Actua and The Winnipeg Foundation for supporting this initiative. Find out more online. We hope you are as excited as we are.

 wisekidneticenergy.ca/adopt-a-class





INDIGENOUS OUTREACH

In the fiscal year of 2014-2015 we were very engaged on First Nations reserves. We delivered our science and engineering camps in Skownan First Nation, Norway House Cree Nation, Hollow Water First Nation, and Sapotaweyak Cree Nation. In addition, we delivered hands-on science and engineering workshops to these communities as well as Opaskwayak Cree Nation, and Sagkeeng First Nation.

We are also pleased to share that along with Pembina Trails School Division, we have implemented a new program called the Circle of Science. This program is held at lunch hour on a monthly basis in Vincent Massey Collegiate, Arthur A. Leach School, Fort Richmond Collegiate, and General Byng School. Students participate in indigenized hands-on science and engineering activities.

As a science teacher, I can say that the sponsors of this program are doing a wonderful job for First Nation children.

Teacher at Wanipigow, Hollow Water First Nation, MB

INNER-CITY GIRLS CLUB

In the fall of 2012 we started our second Girls Club in partnership with the Boys and Girls Club of Winnipeg at their Shaughnessy Park location. During the school year, on Saturday afternoons, 16 girls met to prepare and share healthy meals with female students pursuing

science and engineering and mentors already practising as professionals in those fields. The girls also played sports and participated in science and engineering activities each and every week. It was a safe and fun environment for all participants.

A lot of us parents or guardians wouldn't be able to pay for all the stuff the kids are able to get and learn from there.

Inner-City Girls Club Parent





MAKE YOUR MOVE

Make Your Move is a unique annual outreach opportunity that invites young female leaders in Grade 8 to a special event designed to challenge and to inspire them. Engineers Canada has set the ambitious goal of 30 per cent female participation in engineering by the year 2030. In support of this goal, we hope to influence young women attending the event to choose the correct science and math courses for admission into the faculty in the future. At the event each

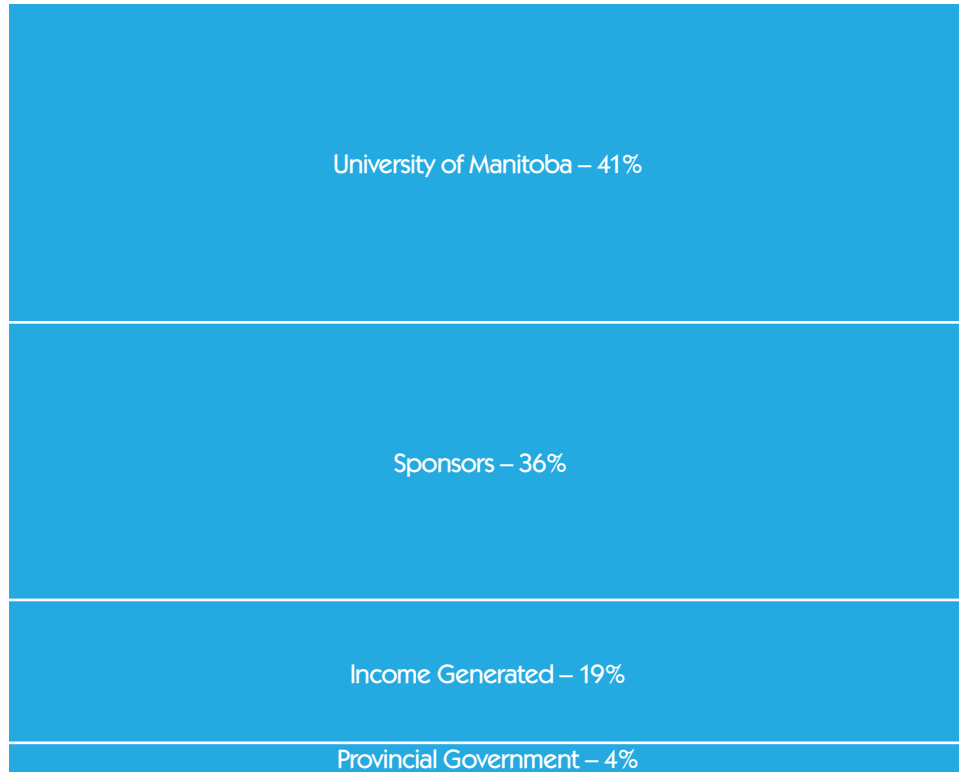
team is matched up with a female engineer mentor. Together they participate in design-build-test challenges that encourage teamwork, creativity, and ingenuity. Last year 60 girls attended the event sponsored by APEGM, Crosier Kilgour & Partners, ENGAP, Faculty of Engineering, FWS Group, Magellan, MTS Futures First, NSERC Chair of Women in Science and Engineering – Prairie Region, Price, and Standard Aero.

I learned that teamwork is key.

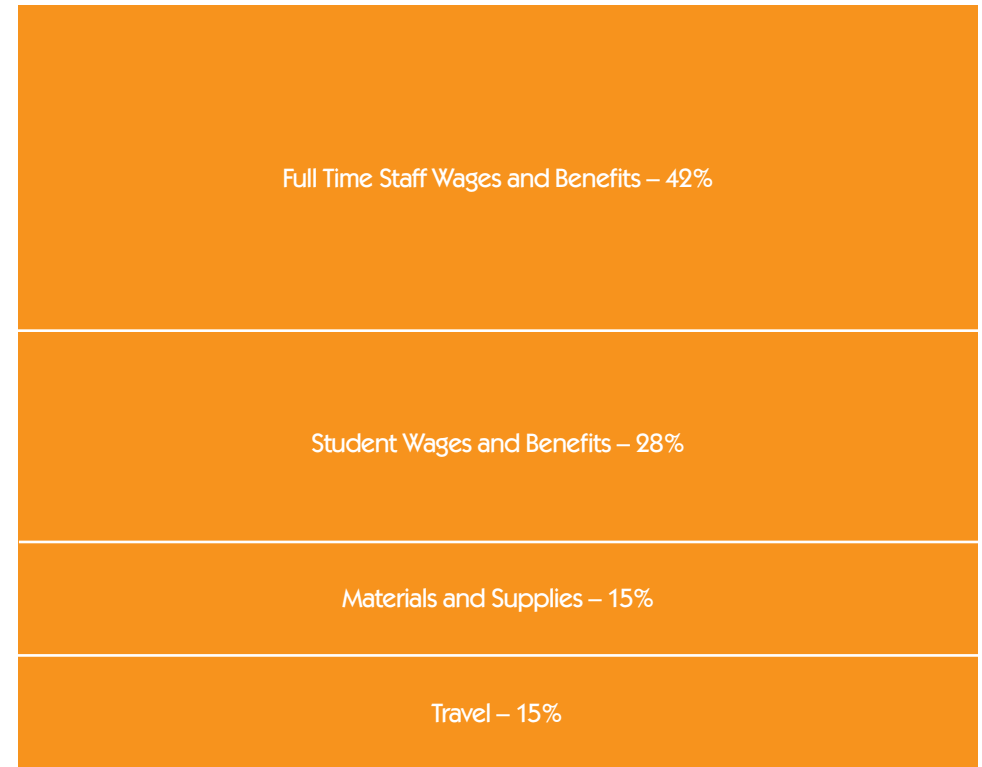
Make Your Move Student Participant

OUR FINANCES

REVENUE: \$480 000



EXPENSES: \$470 000



Great to see University students connecting with potential future students.

Grade 4 Teacher, Niverville Elementary, Niverville, MB





OUR SUPPORTERS

2014-2015 FISCAL YEAR FUNDERS

We have many generous supporters that make our work possible.



2014 ACTUA NATIONAL FUNDERS

Actua provides training, resources and support to a national network of local organizations offering science and technology education programs. Actua members reach over 200 000 youth per year. Please visit Actua on the web at www.actua.ca.



SUNCOR
ENERGY
FOUNDATION



imagination at work



NSERC
CRSNG





OUR FUTURE

WISE Kid-Netic Energy looks forward to maintaining close ties with the Faculty of Engineering and the Faculty of Science at the University of Manitoba, and aligning ourselves closely with their strategic outreach objectives. We look forward to strengthening our ties with teachers and schools within the province so we can continue to support efforts to attract more youth into careers in Science, Technology, Engineering and Math. Our province has a bright future ahead and we know our talented youth are the conduits to our joint success.





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